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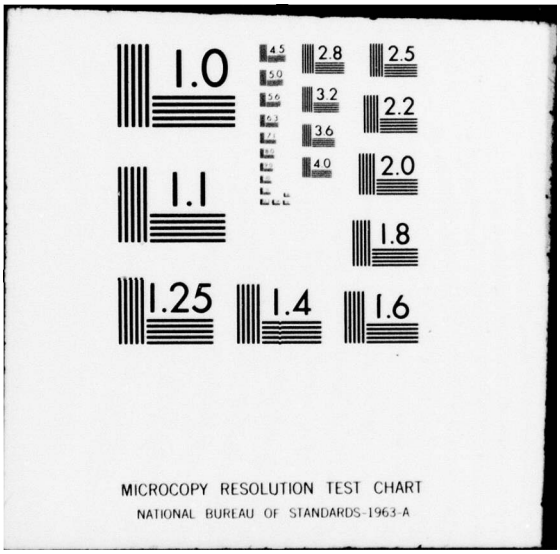
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by

(10) Wade Kenneth Talley

Linda Jo Shipley, Ph.D. Thesis Supervisor

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The undersigned, appointed by the Dean of the Graduate Faculty, have examined a thesis entitled

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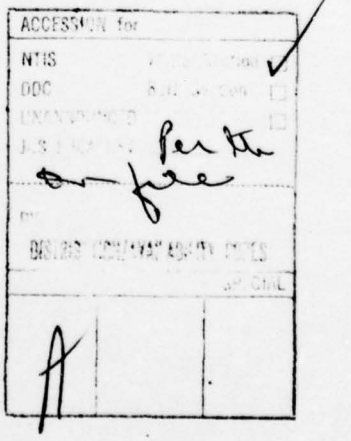
and hereby certify that in their opinion it is worthy of acceptance.

Linda J. Shipley
William H. Taft
Robert D. Thom
Kenneth Kerr



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Special thanks goes to Dan R. Bishop, who headed the Cycle-Safe public relations effort, and who made time where there was none to assist the author in his research. It was a rare pleasure to study the action of a public relations practitioner of his caliber.

Thanks also goes to Dr. Linda Jo Shipley, whose advice was instrumental and insightful, and to Paul Morgan, APR, who suggested the study and provided much helpful advice. And, last but not least, the author acknowledges the patience and understanding, that made it all possible, from Pat.

INTRODUCTION

The purpose of this study is to document and evaluate the public relations effort in support of Monsanto Company, St. Louis, in its 18-month battle to save the Cycle-Safe Division of its Commercial Products Company.

On February 11, 1977, the Food and Drug Administration rescinded its earlier approval of Monsanto Company's use of the chemical acrylonitrile in the company's Cycle-Safe bottle.

The plastic bottle had undergone extensive testing, both for safety and consumer acceptance, during more than a decade of research and development. The C-S bottle was past the test-marketing stage, where consumers had expressed a 3 to 1 preference for it over glass bottles, and was in use by the Coca-Cola Company in full-fledged commercial marketing in 11 states.

This thesis reflects an in-depth study of this occurrence and is committed to the following objectives:

(1) To observe the development of a corporate crisis situation.

2) To evaluate its impact on various publics.

3) To observe the reaction of certain public media.

4) To evaluate the effectiveness of the company's responses and, whenever possible, to relate its performance to the concept of preventive public relations.

In effect, the study reflects how the company identified and communicated with its publics during this crisis, what tools and communications channels it used and why, and how it measured the success of its efforts.

This allowed the author to determine whether Monsanto's public relations procedures are keeping pace with practices generally accepted in the field of public relations. The company's program and methods will be compared with those recommended in selected public relations textbooks.

Methodology used to determine and evaluate Monsanto's public relations procedures during this period include:

1) An in-depth survey of all pertinent literature regarding the Cycle-Safe controversy.

2) A survey of the news coverage of the controversy.

3) A review of library sources concerning corporate public relations.

4) In-depth interviews of members of Monsanto's public relations department involved in the controversy and selected members of the corporate public relations department.

5) A review of Monsanto's extensive files on the public relations efforts during the controversy.

CHAPTER I

BACKGROUND

A. The company

John F. Queeny founded Monsanto Chemical Works in St. Louis, Missouri on November 29, 1901 with $1,500 of his own money and $3,500 in borrowed funds. It has been called "an underwhelming and unreported event."[1]

Today, Monsanto is one of the world's largest chemical companies with:

More than $4½ billion in annual sales

More than $275 million in annual net income

More than 60,000 employes worldwide

Almost 100,000 shareowners

Plants in 43 countries of the world

Over 100 subsidiaries and affiliates outside the United States.[2]

In manufacturing its first product, saccharin, the company went head-to-head with the six companies of the powerful German cartel known as the Dye Trust. To force him out of business, the cartel dropped the price of

saccharin from $4.50 a pound to $1.00 a pound. Queeny sold his horse and buggy, borrowed on his life insurance and weathered out the storm. His product was also the target of a government "poison squad" but was eventually given a clean bill of health by a presidential ad hoc task force. The company turned its first profit in 1905: $10,600. At one time the working capital was $204.[3]

The demands on Monsanto during World War I were overwhelming, old customers increased their orders and new customers sprang up while the German chemical market was cut off. The years of hardship paid off when 1918 showed Monsanto's sales over $9 million. The War Department gave the company a Certificate of Merit for its war effort. The post-war economy hurt the company, but by 1926 sales were back over $5 million. In 1927 the company went public when Queeny sold a block of his stock. This opened the way for capital expansion and growth by listing the company's stock for the first time.[4]

During the Great Depression, John F. Queeny's son, Edgar, managed to expand the company while the rest of industry was pulling in its horns. World War II created a tremendous need for new chemicals. Monsanto contributed its entire resources to the war effort. In 1941 the

company was operating or had planned four major war plants. In 1943 Monsanto received the Chemical Achievement Award for its efforts. The company continued to expand in the '50s, and sales first exceeded $1 billion in 1962.[5]

In 1969 a survey of chemicals financial analysts by the Opinion Research Corporation, Princeton, N.J., showed the analysts held Monsanto in high regard. They felt the company had done an outstanding job in domestic expansion and had the best short-term growth prospect in the chemical industry.[6]

Today, Monsanto is 44th on Fortune magazine's listing of the top 500 U.S. industrial companies in terms of sales, and 35th in terms of income. Monsanto is outranked by only three chemical companies. They are, in order, DuPont, Union Carbide, and Dow Chemical.[7]

Monsanto's social responsibility record

Any company, good public relations or no, can only look as good as it really is. This is based upon socially responsible performance, which must spring from a base of honesty and integrity in business practices.

During World War I, John F. Queeny could have sold saccharin to England for $45 to $50 a pound. But he

restricted sales to United States customers for 25 to 30 cents a pound.[8] This loyalty paid off in the depression years, when Monsanto was able to expand while other companies faltered and folded.

In recent times, also, Monsanto's performance reflects an ingrained sense of social responsibility.

The medical department met none of the resistance it expected in 1952 when it advised the company's executive committee to add pollution control equipment, costing several million dollars, to each plant. Thereafter, any appropriation request was required to bear the medical department's approval of its possible pollution or toxicological effects.[9]

From 1974 to 1976 Monsanto spent approximately $136 million on pollution-abatement equipment. The bill for 1977-1979 should be the same, resulting in a six-year total of over a quarter billion dollars.[10]

In 1970, Monsanto voluntarily removed its polychlorinated biphenyl (PCB) from the plasticizer market when questions of its safety were raised. It continued to sell it to the electrical industry because its use there did not expose it to the environment. But in 1977, after discussions with the Environmental Protection Agency and

its customers, Monsanto withdrew completely as a PCB supplier.

The company's social responsibility is summed up in this statement by board member Dr. Jean Mayer:

> The chemical industry, therefore, not only has a responsibility to be a particularly good citizen --because it's more competent than other industries in preventing pollution--but it also has the special challenge of constantly finding ways and means whereby other industries will be helped to be less pollutant.[11]

The honesty and frankness observed by the author during his research could date from the company's second president, Edgar Queeny. It is said he scoffed at pretense and that his greatest dislike was anything short of total honesty. He left an indelible mark.[12]

Management's concern for product safety led to a company-sponsored scientific symposium in Hartford, Conn., in 1973. Seventy scientists tried to "poke holes" in the environmental and safety aspects of the bottle.

In the published proceedings of the symposium, Monte C. Throdahl, group vice president-technology, Monsanto, said:

> It is Monsanto's belief that when industry anticipates any action that can have large-scale effects it is desirable that the scientific basis for this action should be subjected to scientific peer review and criticism.[13]

B. The Product

Monsanto's Cycle-Safe (C-S) bottle, a 32-ounce, recyclable plastic container for beverages, was viewed by the company as "highly innovative" and offering the consumer "greater convenience, energy savings and increased safety."[14]

A product of the Monsanto Commercial Products Company (MCPC), an operating unit of Monsanto Company, the container was manufactured in South Windsor, Conn., Park Forest, Ill., and Havre de Grace, Md.

The container had been termed by both the Food and Drug Administration and the Environmental Protection Agency as "the most environmentally desirable method of packaging soft drinks they had ever seen."[15]

The C-S bottle was in the research and development stage for more than a decade prior to commercial introduction, during which time it underwent extensive safety testing. This stage alone cost about $18 million.

Monsanto had a one-year lead in the plastic beverage container field at the time of the FDA action. An intermediate step in the bottle's construction included the chemical acrylonitrile styrene copolymer. Acceptable levels of this chemical in food additives had been set by the FDA.

The C-S bottle's effect on its contents not only met the FDA stipulation, but, in addition, current testing methods at the time could not detect any migration of the chemical into the bottle's contents.

Test marketing showed a 3 to 1 consumer preference for the bottle. The Coca-Cola Company initiated commercial marketing in 11 states. After the 1973 Hartford symposium indicated that recycling could be an important factor in the bottle's commercial success, Monsanto began development of a recycling program, setting up several recycling centers.

On Friday, February 11, 1977, the FDA announced its intention to rescind marketing approval (granted in 1975) for the C-S bottle. Monsanto learned of the action from a reporter.

C. The problem

The FDA action created a very serious problem for Monsanto. Immediate and most regrettable was the loss of nearly 1,000 jobs in the communities where the C-S bottle fabrication plants were located. This created an obvious threat to the company's employe and community relations. Allegations of cancer risks associated with worker exposure damaged employe relations also.

The financial loss of about $60 million, and the resulting write-off of $0.55 per common share created a possible shareowner relations problem of no small magnitude. General public and trade relations were damaged by the loss of a promising product and allegations of inadequate safeguards inferred by the FDA action. Loss of sales for 1977 was estimated at $30 million and was projected to have reached $100 million by 1980.

Monsanto also viewed the FDA action as a threat to innovation, termed by the company as a "hidden loss to the American public." This led later to the initiation of the $4½ million Chemical Facts of Life Program, a joint public relations/advertising effort to counter what the company viewed as "the threat of extreme and unforeseeable government restrictions" on the chemical industry.[16]

Also, the FDA action resulted in strained government relations. This, however, will be addressed only insofar as it relates to past action, since the case is being appealed to the U.S. Court of Appeals for the District of Columbia Circuit.

FOOTNOTES

[1]Dan J. Forrestal, Faith, Hope, and $5,000 (New York: Simon and Schuster, 1977), p. 5.

[2]Ibid., some figures updated from 1977 Annual Report.

[3]Forrestal, Faith, Hope, and $5,000, pp. 21-22.

[4]Ibid., p. 40. [5]Ibid., p. 95.

[6]Bertrand R. Canfield and H. Frazier Moore, Public Relations: Principles, Cases, and Problems. 4th ed. (Homewood, Ill.: Richard D. Irwin, Inc., 1971), pp. 87, 91.

[7]Peter J. Schuyten, "The Fortune Directory," Fortune magazine 97 (8 May 1978), p. 240.

[8]Forrestal, Faith, Hope, and $5,000, p. 30.

[9]Ibid., p. 154. [10]Ibid., p. 202.

[11]Ibid., p. 219. [12]Ibid., p. 178.

[13]Monsanto Company, Proceedings of the Symposium: Environmental Impact of Nitrile Barrier Containers, Lopac: A Case Study (St. Louis: Monsanto Company, 1973), p. 5.

[14]Monsanto Company, "Position Statement: Cycle-Safe Beverage Containers" (St. Louis: Monsanto Company, 1978), p. 8.

[15]Ibid. [16]Ibid.

CHAPTER II

SETTING/PERSPECTIVES

A. Business and the public atmosphere

According to Luther H. Hodges, Jr., public erosion of confidence in capitalism has created monumental problems for the public relations practitioner. Hodges said:

> By whatever standard, the reputation of business continues to deteriorate instead of improve and... a principal reason is that business leaves itself open to legitimate criticism just often enough to allow the consumer activists of the country to use the broad brush in painting all of our activities black.[1]

Business today still has not learned to communicate its story effectively. Part of the reason is caused by the sheer magnitude of the problem. As businesses have increased in size, executives are increasingly isolated from the companies' publics.

One of the most important publics is employes. The expansion in the work force has created serious problems in communicating with employes. Misunderstandings have arisen and employes have had little opportunity to express their views.

Most textbooks state that the second most important public to a corporation is its shareowners. More than 30.8 million individuals owned shares in corporations in 1970, a 53 per cent increase over 1965.[2]

Since the turn of the century government has steadily increased its role in business. Businessmen charge that government regulation is stifling innovation and destroying free enterprise. Government says business is only interested in producing saleable products, with little or no concern for those product's effects on the health and safety of the public. This antagonism results in government often making decisions without the counsel of business, to the detriment of both. Another result of this antagonism is the increasing role of business in government. Many companies are becoming involved in public affairs and taking stands on political issues.

Parallel with these problems, businesses today are expected to take on great social responsibilities of "corporate citizenship." And, in many cases, they are expected to lead the way to a better world.[3]

Monsanto's appreciation for the public mood is shown in this excerpt from a public relations department report: "Representative Public Relations Highlights

1969-1973":

> The climate of cynicism in which certain segments of American government and private industry are functioning today place extraordinary emphasis on surrounding any public message with credibility.... Dealing with today's public mood calls for substantially more than a conventional public relations approach.

Charles H. Sommer, Jr., Chairman of the Board from 1968-1975, expressed Monsanto's understanding of the situation when he said:

> From time to time, we read about the various apprehensions of youth. We see many of them turning their backs on the business system. As they read about the caricatures of business, and the misbehaviors of business, they quite understandably come to the conclusion that all businesses represent the absence of freedoms, the absence of individual opportunities--plus the imposition of uniformity, entrapment and depersonalization.[4]

Sommer has always identified the company with opportunity and integrity.

B. Public relations: definition of terms

1. Public relations

This term will be abbreviated: "PR." The following definitions from various sources are generally accepted by authorities in the field.

Scott M. Cutlip and Allen H. Center define PR as "the planned effort to influence opinion and action through

socially responsible performance based on mutually satisfactory two-way communication." They identify two main types of PR--preventive and remedial. Often a matter calling for remedial PR provides the impetus to begin preventive PR for the future.[5]

Richard W. Darrow says PR is the "business of gaining and maintaining public understanding and support."[6]

Fortune magazine's definition of PR is "good performance publicly appreciated because it is adequately communicated."[7]

Any PR activity must be planned to economize effort and funds. This effort must be based upon responsible performance that is acceptable to the public, and must attempt to promote understanding through two-way communication. It must be added that the effort must be carried out with honesty and integrity.

Therefore, the most important words in the above definitions are "planned effort....acceptable performance ...two-way communication....understanding.... and responsible action."

The Board of Directors and Assembly of the Public Relations Society of America, in 1976, formed a subcommittee to "identify a definition of public relations."

The subcommittee's final effort was "the function that maintains an organization's relationship with society in a way that most effectively achieves the organization's goals."[8]

The current effort to define PR is, in some people's opinion, debilitating to the profession (that PR is a profession is not settled either). One chief executive officer, William Agee, President of Bendix Corporation, said it imparts a sense of confusion and a degree of self-doubt.[9]

2. Publics

This term refers to those groups of people with a common goal or relationship to an organization, whose good will and support are important to the achievement of that organization's purpose.

Cutlip and Center define publics as "those groups with common interests affected by the acts and policies of an institution or whose acts and opinions affect the institution."[10]

3. Tools

Those items or procedures utilized by the PR practitioner to alter or reinforce opinions are called

tools. They can be classified as the printed word, the spoken word and the image, to be used through three avenues--personal contact, controlled media and public media. Their content can be controlled at the point of origin.[11]

4. Public opinion

This term refers to an "expression of a belief held in common by members of a group or public on a controversial issue of general importance."[12]

C. Public relations today

There are no reliable statistics as to the number of persons actively practicing PR today. An estimate by the Information Center of PRSA is 110,000. In 1936, only 50 of the top 300 U.S. companies had PR departments; today three-fourths do.[13] Institutions spend about $2 billion annually on the talent and apparatus to achieve good relations with their publics.[14]

Corporate PR did not become a common management function until after World War II. While today it is widespread, most practitioners feel real growth has just begun. As PR techniques and personnel improve, management is becoming more aware of PR's usefulness.

Most authorities agree that PR is the responsibility of all managers from top to bottom in an organization. The PR department, having no line authority, exists to serve. Canfield and Moore say the PR department "is an administrative group which aids the managers of the departments in carrying out their public relations functions."[15]

A Cutlip and Center survey of PR practitioners in 1977 revealed that 99 per cent of PR department heads rated news releases and media relations important. The ratings for house publications was 82 per cent; contacting public officials, 74 per cent, and preparation of speeches or scripts, 70 per cent.[16]

Today, the "flim-flam artists" are disappearing, giving way to professional communicators. PR departments are being trusted with more and more functions. PR is doing more than selling soap or improving the "image" of an organization.[17]

D. Public relations at Monsanto

Public relations at Monsanto today can best be understood with a look backward. Corporate public relations began at Monsanto with Edgar Queeny. He began his career in 1920 under his father, John F., in advertising and sales

while serving as publisher and editor-in-chief of the employe publication Current Events (later Monsanto magazine, which was discontinued in 1975).

When he became president, Edgar Queeny appreciated the importance of communications, and knew that shortcomings existed at Monsanto.

In 1931, he modernized the annual report (details discussed later). Upon his father's death he explained his philosophy of business to his employes:

> The affairs of every corporation are so inseparably bound up in the interests of employes, shareowners and customers that unless proper regard and consideration are given to each, the management is doomed to failure. These three factors constitute a fundamental business triangle, the sides of which misfit unless kept in proper relation to each other. That is the job of management.[18]

Public relations officially was initiated at Monsanto in 1938, with its director titled "assistant to the president." A department of industrial and public relations was established in 1939 to administer advertising, personnel and PR. The functions were separated in 1954.[19]

The first department was called the Department of Advertising and Monsanto Practice to emphasize Queeny's appreciation of the importance of basing PR on good corporate performance. Queeny cited four "fundamentals in

the maintenance of a good reputation: 1) practices, or policies, 2) performance, 3) behavior, and 4) communication to and from audiences, whose understanding and support are crucial."[20]

In the 1939 company manual, Queeny wrote that the PR department policy would seek to:

> identify Monsanto with that which in an individual would be good morals and good manners. So-called good public and employe relations will be determined by the way we treat our employes, by the way we treat our shareowners, by the way in which all our business and community contracts are handled. In other words, whether we accomplish our purposes, or fail in their accomplishment, will depend on the way we do things, and the way in which our corporate character is interpreted and identified.[21]

No one, as far as the author can determine, has said it better. The only thing that could be added is that this performance must be adequately communicated.

Monsanto PR today

Today, Monsanto's Vice President-Public Affairs, Dr. Joseph T. Nolan, favors a more specific definition of PR, one which emphasizes the special responsibility to the public at large. This definition originated with Denny Griswold, founder of Public Relations News:

> Public relations is the management function which evaluates public attitudes, identifies the policies and procedures of an individual or an organization

> with the public interest, and executes a program of action to earn public understanding and acceptance.[22]

Appendix 1 shows the organization of PR at Monsanto. Nolan calls it typical. Nolan's position as Vice President-Public Affairs allows him to coordinate the efforts of two similar fields--PR and advertising.

This type organization is referred to in Canfield and Moore as centralized. They say most corporate PR departments are located at company headquarters, like Monsanto's. Also, as most textbooks suggest, PR at Monsanto is placed at top management level, "responsible to the president and the board of directors."[23]

Community relations and employe relations at Monsanto are the direct responsibility of the managers of the local plants, with the company PR department acting as an expert communications counsel. Canfield and Moore consider this to be typical.

"A company with several plants holds each plant manager responsible for press relations....A community relations program in multiplant corporations is the responsibility of local plant management."[24] Cutlip and Center agree: "Seldom does the public relations function embrace making and executing personnel policies....In most

organizations, the staff is not directly involved in labor negotiations, employee recruitment, promotion, counseling and training. However,....It can contribute much."[25]

During the crisis period (roughly, February 11 to September 1, 1977), Dan R. Bishop was Director-Public Relations and Advertising, MCPC, and James Abrams was Manager-Public Relations. J. Virgil Waggoner was General Manager, Cycle-Safe Division, MCPC; the local plant managers reported to him. David C. Rowley was Personnel Manager, Cycle-Safe Division, MCPC.

The following section sets the stage for discussion of Monsanto's PR effort by detailing the events leading up to and encompassing the FDA's final ban on the use of acrylonitrile in beverage containers such as the C-S bottle.

E. Chronology of events

On February 12, 1975, the FDA issued a "final regulation" granting Monsanto's petition for use of acrylonitrile. The petition was required by FDA for administrative regulation only. In mid-January, 1977, the Manufacturing Chemists Association presented preliminary results from an industry-sponsored toxicity study. After

reviewing these data the FDA said interim results should not be a cause for overreaction.

One month later, on Friday, February 11, citing these same results, the agency unexpectedly announced its intention to ban the C-S bottle for beverage use. Both Monsanto and the Coca-Cola Company were notified by a New York Times reporter who called for their comments. The agency also based its action on the results of an agency test of migration of the acrylonitrile from the bottle to its contents. Monsanto contested the testing method as incompatible with the bottle's intended use.

Monsanto shut down its three bottle fabrication plants and a supporting resin manufacturing plant on February 18, 1977.

Uncertainty on FDA's part created confusion. Some supermarkets took the bottle off their shelves; some media carried inaccurate stories that the bottle was already banned because it had been proven to cause cancerous tumors in mice. The Michigan State Health Department warned against drinking Coke from plastic bottles. Michigan Senator John Otterbacker issued a press statement saying the bottles presented a serious threat to health.

Monsanto met with FDA representatives on February 14, 16, and March 3, 1977, to review the situation. On March 7, FDA Acting Commissioner Sherwin Gardner told Monsanto officials the order suspending the bottle had been signed.

On the same date, Monsanto filed suit in the U.S. Court of Appeals for the District of Columbia seeking to restrain the FDA, and asked for a hearing. The court granted Monsanto an interim stay on March 11, and scheduled a hearing for March 16, when Monsanto presented its arguments to a three-judge panel of the court, asking for a public notice and 90-day comment and hearing period as was done in the saccharin case.

After hearing FDA's arguments, the court took the matter under advisement, issuing a unanimous decision on March 18. The court set aside the FDA order, calling it "arbitrary and capricious," and ordering HEW/FDA public hearings until May 18, 1977. This was later extended for 120 days.

The court said:

> . . . it is plain that the intent of Congress was to compel processing of such objections more expeditiously than the Commissioner has done here. One purpose of these dual requirements of prompt objections and prompt hearings is to ensure an expeditious

> decision as to whether a product will be authorized on a permanent basis, so that substantial investments will not be made in the expectation of permanent production, only to become substantial losses when production is subsequently prohibited.[26]

On April 11, of that year, the Manufacturing Chemists Association reported new data from an on-going rat-feeding study showing tumorous results. Monsanto contested the data, saying the lowest dose administered was much too high. On May 23, the DuPont Company announced that preliminary results of a worker-exposure study showed excess cancer incidence and mortality.

On August 4, Administrative Law Judge Daniel Davidson issued his decision: the regulations allowing the use of acrylonitrile for beverage container use were to be withdrawn until further notice.

Monsanto appealed this decision on August 15 and it was denied by FDA Commissioner Donald Kennedy on September 1. The final FDA ruling prohibiting acrylonitrile use for beverage containers was issued on September 19 and took effect on December 23, 1977.

Monsanto petitioned the U.S. Court of Appeals for the District of Columbia Circuit for judicial review on November 17.

In the 1977 annual report, Monsanto announced a

charge of $0.55 against earnings per common share attributable to the C-S ruling. The eventual loss to Monsanto, as a result of the FDA ruling, is estimated at $60 million.

The following chapter begins the four-step process used to document and evaluate the PR effort of Monsanto in response to the FDA action.

FOOTNOTES

[1]Luther H. Hodges, Jr., "The New Challenge for Public Relations," Public Relations Journal 31 (August 1975):8.

[2]Bertrand R. Canfield and H. Frazier Moore, Public Relations: Principles, Cases, and Problems, 4th ed. (Homewood, Ill.: Richard D. Irwin, Inc., 1973), p. 227.

[3]Paul Burton, Corporate Public Relations (New York: Reinhold Publishing Corporation, 1966), p. 1.

[4]Dan J. Forrestal, Faith, Hope, and $5,000 (New York: Simon and Schuster, 1977), p. 205.

[5]Scott M. Cutlip and Allen H. Center, Effective Public Relations, 4th ed. (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1971), p. 2.

[6]Arthur R. Tilford, An Analysis of the Public Relations Activities Utilized By the Department of Defense During the Dugway Sheep Incident of 1968 (M.A. thesis, Brigham Young University, 1970), p. 6, citing Richard W. Darrow, Dan J. Forrestal, and Aubrey O. Cookman, The Dartnell Public Relations Handbook (Chicago: The Dartnell Corporation, 1967), p. 28.

[7]Dave Hyatt, Public Relations: A Handbook for Business, Labor, and Community Leaders (New York: The New York State School of Industrial and Labor Relations, a unit of The State University of New York, Cornell University, 1963), p. 2.

[8]C. Thomas Wilck, "Toward a New Definition," Public Relations Journal 33 (December 1977):26.

[9]William Agee, "The Role of Public Relations," Public Relations Journal 34 (September 1978):53-54.

[10]Cutlip and Center, Effective Public Relations, p. 145.

[11]Ibid., p. 281.

[12]Canfield and Moore, Public Relations, p. 29.

[13]Ibid., pp. 94-100.

[14]W. Howard Chase, "New Standards for Measuring Public Relations," Public Relations Journal 31 (February 1975):18.

[15]Canfield and Moore, Public Relations, p. 327.

[16]Allen H. Center, "Canvassing the Calling," Public Relations Journal 33 (November 1977):40.

[17]Burton, Corporate Public Relations, p. 224.

[18]Forrestal, Faith, Hope, and $5,000, pp. 58-59.

[19]Canfield and Moore, Public Relations, p. 87.

[20]Forrestal, Faith, Hope, and $5,000, p. 59.

[21]Ibid.

[22]Interview with Joseph T. Nolan, Monsanto Company, St. Louis, 23 October 1978, citing Canfield and Moore, Public Relations, p. 4.

[23]Canfield and Moore, Public Relations, pp. 94-100.

[24]Ibid., pp. 136,270.

[25]Cutlip and Center, Effective Public Relations, p. 327.

[26]Per curiam court order dated 18 March 1977, U.S. Court of Appeals (District of Columbia Circuit) by Circuit Judges Wright, Tamm, and MacKinnon. Signed by George A. Fisher, court clerk.

CHAPTER III

FOUR-STEP PROBLEM SOLVING PROCESS

This chapter is an evaluation of Monsanto's PR effort during the C-S experience, using a four-step process recommended by Cutlip and Center for use in solving PR problems and initiating PR programs.[1] The process lends itself well to delineating the steps taken and the procedures used in after-the-fact research, even though the institution being studied did not consciously follow the process during the period involved.

James Tirone, director of AT&T's PR measurement program, said measuring PR is "like trying to measure a bucket of eels." He said though many have tried to devise methods of measuring PR, "few of these studies have offered any practical solutions."[2]

The author offers the four-step process as an effective method to at least classify the PR activities used during a program, and feels it offers promise as a method of PR measurement.

A. Factfinding/feedback

1. Define problem

The problem, from a PR standpoint, is that relations with the company's publics had been damaged or threatened due to action or threatened action by the FDA.

2. Define publics

Cutlip and Center said: "One of the first chores is to identify and establish liaison with an organization's special publics....communication with the whole public is made economical and effective by this public-by-public approach." They went on to say that effective communication "means tailor-made programming especially designed for the situation, time, place, and audience."[3]

Canfield and Moore define the "principal publics" of a corporation as: employes, stockholders, consumers, community neighbors, distributors, educators and the government.[4]

To these can be added other groups whose goodwill and support were important to Monsanto during the C-S crisis: trade, or industry; opinion leaders, or key influentials; media; management/staff, of Monsanto; and the general public.

Reference to Monsanto's emphasis on certain publics in the past and important events in the company's history as it relates to those publics are included to assist the reader in understanding Monsanto's actions during the crisis.

Shareowners. The primary tool used to communicate with shareowners is the annual report, or inserts therein.

In 1931, after examining other corporations' reports, Edgar Queeny decided that Monsanto's shareowners should receive more information in a more understandable and palatable format. Previous annual reports had been "an inoffensive six by nine inches." He increased it to magazine size and later experimented with such unique embellishments as clear plastic overlays and scented ink to dramatize Monsanto products.[5]

During World War II, Queeny was frustrated in shareowner communications by national security constraints and the new SEC regulations concerning company liabilities in case of violations of proxy provisions. Monsanto magazine "all of a sudden" began to carry more articles on company operations. Queeny wryly observed: "No penalty is as yet attached to human errors that may appear in company

publications....Our magazine is our forum; let's use it to the fullest."[6]

Dan R. Bishop, MCPC director of advertising and PR during the C-S crisis, said:

> For years we had been funding a rather extensive development program for the C-S bottle and this was responsible for a goodly charge against earnings per share--and when it became obvious the introduction program was in jeopardy, and consequently the share-owner's investment, it was necessary to communicate with them so they would be supportive of our position when the write-off became necessary, as it did.[7]

Employes. Employe communication is the "keystone of modern public relations programs."[8] It should provide two-way communication, from employes to management and vice versa.

Eventually, more than 800 Monsanto employes and about 200 local vendors lost their jobs as a result of the FDA ban. Prompt action by the company resulted in over 90 per cent of the professional and managerial employes being offered new jobs with the company within 90 days. Local advertising and employe counselling resulted in many hourly or wage employes obtaining jobs.[9]

All Monsanto hiring was frozen and a "war room" was organized as part of an "employe deployment" program to identify job openings and to match laid off employes to

them.

Monsanto employe relations is handled through the personnel department with the PR department acting as "communications experts," according to David Rowley, former MCPC personnel director, and now manager-Corporate Manpower Planning Systems.[10]

With the employe public, as well as with others, preventive PR played an important role. Employes knew what the company's alternatives were, due to an employe handbook for hourly workers which Monsanto publishes. Also, due to what Rowley calls the "Monsanto Philosophy of Employment," the professional and managerial employes knew they would be offered jobs elsewhere in the company.

But Monsanto's preventive PR dates to the early days of the company.

During World War I, the company sent employes serving in the armed forces a monthly wage and offered them jobs upon their termination of service. In 1940, shareowners approved a farsighted pension plan covering all employes. In 1950, they approved the company's first comprehensive bonus plan.

Monsanto encourages individuality, but "within the normal bounds of business practice," according to many of

the company's former employes.[11]

Current President and Chairman of the Board, John W. Hanley, said:

> The people who literally make Monsanto products simply make Monsanto. Period. They know it. I know it. And they're not about to be unsung heroes as long as I'm aboard....We give our production people the encouragement they merit. I've come full face with the realities of the so-called Monsanto legend and have found the legend in fact no less than an adventure which thrives on a compelling sense of involvement. And the key, I believe, is allowing the freedom for individuals to participate as individuals.[12]

Although employes were treated somewhat differently, depending upon their status, the methods of communicating with them were so similar there is no need to distinguish between them. The only difference between the employe groups was that the managerial and some clerical employes were grappling with the C-S crisis on a daily basis, and were therefore familiar with the issues. Communications with this group was much easier than with the other groups for this reason.

At the end of the second week of the crisis (measuring from the FDA's February 11 announcement), Monsanto decided to go into a layoff situation with its plants. "We had two weeks of production with no shipments," Rowley said. The company laid off hourly workers

with the exception of some maintenance personnel.[13]

"At the end of the fourth week, we decided we had no alternative but to shut down, at least several months in duration and probably the balance of the year at a minimum," Rowley said. The company decided to terminate the hourly workers and give them their termination pay, "telling them the odds were we wouldn't start up again," he said.[14]

Trade. The trade public includes other industry-related organizations and businesses. Relations with this public were especially important to Monsanto during the C-S crisis. Cooperation in any trade or industry organization is dependent on trust and respect among and between its various member companies. Although most were inclined to favor Monsanto's position, there was still the need to communicate the changing situation to this public.

Opinion Leaders. The opinion leader public can be divided into: 1) government, 2) academia, 3) environmentalists, 4) civic organizations, and 5) consumer protection advocates.

Canfield and Moore stress the need for a closer relationship between the business and academic community.

"Many of the goals and techniques as well as the problems faced by educators have reality in business," said Canfield and Moore. "Businessmen...are recognizing a responsibility to schools, both as sources of educated manpower and scientific knowledge, and as important determining factors for a favorable or unfavorable business climate."[15]

According to Cutlip and Center, the government's increasing impact on "the activities of every organization make it a key public for most concerns...."[16]

The leadership provided by civic organizations and public-interest groups such as environmentalists and consumer protection advocates provide many PR opportunities to publicize the corporation's stand on various issues. Participation in or donation to such groups also demonstrates social responsibility.

Media. The media public can be divided into local (plant community or nearby), national or general, and trade.

Good relations with the media are maintained through helping editors and reporters obtain news accurately, completely, and swiftly.

It is important to any organization to do this when the news is bad or good from a company standpoint. Evasion with the press may delay bad publicity, but not prevent it. As Cutlip and Center say: "The press men and women are alert, intelligent, critical, and, with very few exceptions, honest. . . . The press fires the last shot."[17]

Customers. The No. 1 Monsanto customer for the C-S bottle was, of course, the Coca-Cola Company. Relations with Coca-Cola were already excellent and were maintained during the crisis through constant communication. The Monsanto-Coca-Cola relationship was such that bottlers and distributors can be included as Monsanto customers. Most communication with this public was a joint Monsanto-Coca-Cola endeavor.

Management/Staff. Management is generally considered by authorities in the field as part of the internal or employe public. The author subdivides this internal public in order to emphasize the special relationship between the PR, management, and staff functions of a corporation.

Local Communities. This public is defined as the

communities surrounding the plants that were closed as a result of the FDA action.

According to Canfield and Moore, good community relations: 1) improves employe recruitment, 2) sells more products locally, 3) allays distrust of absentee ownership, and, 4) improves efficiency through promoting good government.[18]

3. Informal research

Informal research was the backbone of the PR effort for the C-S crisis. It mostly consisted of much "legwork" beginning with the February 11 FDA announcement.

After their initial shock, the PR, personnel and legal departments went to work. By 7 p.m. (2½ hours after notification), the PR department had an answer for the New York Times query.

Numerous informal research tools were used during the crisis, including telephone calls, meetings, letters, conferences, and backgrounding with management and staff.

Here, too, preventive PR played a role. Already the company had an excellent background reference in the published proceedings of the company-sponsored 1973 scientific symposium in Hartford, when many of the C-S

bottle's environmental and safety aspects were discussed freely with non-industrial scientists. "It was a document we could use in talking with groups or legislators, or just for general information on the [C-S] program," said then MCPC PR Manager James Abrams.[19]

The "Chronology of Major Events," prepared and kept up to date by Dan R. Bishop, who was director of PR and advertising, MCPC, was also an excellent research tool in the months to come.

"If you got into a situation where you wanted to know what and when under pressure....you had instant information available...it forced you to speak with unanimity," said George Griffin, attorney for MCPC.[20]

Another form of informal research was the job search conducted to locate and match up jobs to laid-off employes.

During the C-S crisis, one informal research tool used was clipping services. Monsanto employed two firms--one to clip from magazines and one from newspapers--who were instructed to clip every reference to Cycle-Safe, acrylonitrile, or Coca-Cola's plastic beverage bottle. The newspaper clipping service monitored all metropolitan dailies with circulation of 50,000 or more, and all local

(plant community) papers. After media coverage dropped off, around the end of March, the scope of monitoring was reduced.[21]

Although one purpose of this study is to document and evaluate the PR effort during the C-S crisis, PR activities before and after, when identified by the author, will be discussed. These activities both reflect the PR procedures of Monsanto and have a cause-and-effect relationship with C-S period activities and PR department options. As the Chemical Facts of Life (CFOL) program is an almost direct outgrowth of the C-S experience, the study would be remiss in not discussing it.

In the period following the C-S crisis, when the $4½ million joint PR-advertising CFOL program was initiated (discussed at length in a later chapter), informal research tools used include the feedback from internal and external publics which led to the second edition of the CFOL booklet, "The Chemical Facts of Life;" the informal survey of other corporations' speakers' bureaus conducted by Vivian Eveloff, director of the Speakers' Bureau; and the informal monthly evaluation of the CFOL program by Gerard Ingenthron, director of Monsanto's News Bureau.
Ingenthron said he keeps a "close watch on what develops

in the media and compares that to [pre-program] research. Our measurement techniques are more qualitative than quantitative," he said.[22]

4. Formal research

During the C-S crisis, there was only time for informal research. During the test-marketing period, 1971-1975, the marketing and PR departments conducted many tests of consumer acceptance. Michael J. Pratl, director of marketing and sales for the C-S container, said there were at least 17 separate studies conducted "in all the major cities." During the testing, Pratl said, the marketing, environmental affairs and PR personnel worked "hand in glove." Although the primary contact with the Coca-Cola Company was marketing, the PR department also was very much involved.[23]

During the post C-S period, Monsanto conducted extensive research into the effectiveness of the CFOL program. The company employed two firms to survey public opinion on chemicals. The entire CFOL program was pretested in Minneapolis-St. Paul in late 1977. A benchmark test was conducted before national advertising was instituted.

B. Planning/Programming

The second step in the process is planning. Lack of adequate planning leads to wasted time and funds. This is where the PR practitioner "brings the public's needs, desires, and opinions to bear on the policy-making process."[24]

1. Long-range goals

The goals of the early marketing period were outlined in the 1973 Marketing Plan. The PR section of that plan listed them as:

> ...to communicate the fact that Lopac Containers (an early name for C-S) are superior to existing soft drink packages...Essentially, the Public Relations program as it concerns the environmental aspect will be directed toward supporting marketing objectives...

Fred G. Marshall, former PR representative, MCPC, said PR during the marketing period was unusual in that "we were only dealing with one customer (Coke) so it wasn't a matter of developing a market per se. It was broken down, into that we would handle questions on the container and they would handle marketing the bottle and the soda."[25]

The long-range goals outlined by Marshall were:

1) Through publicity, to neutralize environmentalists' charges against the container, acquaint customers with the advantages of the container and promote recycling centers, and

2) Through media relations to achieve recognition by key target legislatures, media, environmentalists and consumer groups that Cycle-Safe was an ecologically acceptable container; to ward off any adverse legislation such as deposit legislation.[26]

Bishop described the long-range goals of the PR department during the C-S crisis period as:

> ...to ensure that the public perception of Monsanto during the C-S experience was one of corporate responsibility and concern for the safety of our products and the public. While obviously the future of this innovative product line was important, the image and long-term future of Monsanto was vital in my considerations.[27]

The CFOL "Chemical Facts Bulletin" best expresses the long-range goal of the post C-S period: "to achieve a more balanced perspective in the public mind concerning the uses, value, benefits and risks of chemicals."[28]

2. Short-range goals

The PR short-range goals of the marketing period according to a PR department report in 1973 were:

1) The development of a positive public attitude leading to successful market-by-market commercial acceptance of the Lopac container as a superior soft-drink package.

2) To maintain sustained trade interest in the Lopac container as a premium package.[29]

Marshall said the short-range PR goal was "tracking and developing communication with environmental groups, state legislatures, the scientific community and solid-waste disposal people to:

> 1) Inform them of the facts relating to the safe disposal of the C-S container, and
> 2) Initiate, and support the marketing department in initiating, reclamation programs in the Northeast."[30]

The crisis period short-range goals were:

> 1) To keep the publics, media and employes informed of Monsanto's position, of developments as they unfolded and of new evidence as it came to light.
> 2) To document the chronology of events as they occurred for historical purposes. "Later we could learn some lessons from this...because it was a very expensive lesson," Bishop said.
> 3) To ensure that Monsanto's defense of the product was conducted in as professional a manner as possible; and when the final decision was made, regardless of what it was, the responsible image of the company must be kept intact.
> 4) To constantly keep management informed of events and advise them of the likely PR consequences of their actions.
> 5) To keep our sister operations informed of our operations. "If we did something irresponsible, it would affect them as well," Bishop said.[31]

The post C-S short-range goal is to get the CFOL program off the ground and merchandise it to the rest of the industry. "We are going to carry on," said Vice President for Public Affairs Joseph T. Nolan, "but to make an impact requires more than the resources of one

company." Other executives suggested it may take three to five years for the industry to get involved as a whole. Nolan said other companies have started similar "speak out" programs with comparable budgets.[32]

In order to merchandise the program to the rest of the industry, Gary Barton, manager of Environmental Communication, said the company sends CFOL literature to the chief executive officers of other businesses.[33]

3. Timetable

The marketing period timetable necessarily corresponded to the market-by-market introduction of the bottle. Each marketing event, such as the April 1974 premarket orientation meetings with bottlers, was supported by the PR department with PR tools such as desk-top presentations, leave-behind literature, a question and answer sheet, sample bottle kits and key contact lists.

The crisis period timetable was of necessity a defensive, blow-by-blow timetable. Events on the legal front were responded to immediately with the use of PR tools such as position and preparedness statements, press releases, employe meetings and so on.

The timetable for the post C-S (CFOL) period is

not currently a consideration, but it doesn't appear that there will be indefinite expansion of the program by Monsanto because of the expense. As other industry organizations become more active in similar programs, Monsanto will not have to bear as heavy a committment, especially if research shows the public attitude toward chemicals is becoming more balanced.

4. Budget

The PR budget for the late marketing period was:

1976	1977 (proposed)	Intended Use
$26,600	$32,100	product publicity
$ 900	$ 1,000	internal communication, special events
$ 3,000	$ 3,900	press relations
$ 3,600	$ 4,800	industry relations[34]

The budget for the crisis period was unlimited. This may sound unusual, as it is, but as Bishop put it, the company felt that this was not only a "crisis that threatened the existence of a viable business. Much more was at stake than a promising new development--the reputation of our business and the free enterprise system."[35]

The budget for the post C-S period CFOL program is $4½ million annually. The large budget "may sound like

a lot from Monsanto," Nolan said, "but that's nothing when you are trying to mount a nationwide campaign."[36]

The CFOL budget is broken down into $300,000 for PR (of which $22,000 goes to the Speakers' Bureau), and the remainder ($4.2 million) is for advertising.

5. Disaster planning

Normally an important part of any PR program, disaster planning is not relevant to this discussion.

Although some would view the FDA action as a disaster, the author classifies it a crisis as most textbooks reserve the term "disaster" for those natural or man-made events which threaten life.

C. Action/Communication

According to Cutlip and Center, this is "where the public relations function moves on-stage from the wings of fact-finding and counselling....The next step is action. This action requires supportive communication to gain cooperation and to gain credit."[37]

Canfield and Moore said: "Effective communication with employes, customers, shareholders, community neighbors, and other publics is essential to good public relations. Relations with people are established only by communicating

with them."[38]

1. Tools

A list of the tools used by the PR department during the marketing period are:

1) Desk-top (flip chart) Presentation: "for face-to-face office type meetings with key contacts in the opinion leader group."
2) Sample bottle kits: as a leave-behind by spokesmen, direct mail, and handouts.
3) Scientific Symposium Proceedings: for direct mail, technically oriented influentials, appropriate institutions.
4) General Speeches/Slide Presentations: "for non-technical segments of the opinion leader audience."
5) News Features: "A 'bank' of general feature stories on different aspects of the container..."
6) Institutional Advertising
7) Design Theme: logo or slogan
8) Displays
9) General Information Booklet: for general distribution.
10) Photography: for news and feature stories, covers, visual presentations, displays, press kits, etc.[39]

During the crisis period, no such handy list was prepared. From research into files and personal interviews, the following tools are identified, arranged and discussed according to their intended target publics. A general discussion of some of the most used tools and their preparation, approval and distribution follows.

Shareowners. Monsanto communicated with shareowners via the annual report and inserts therein. Burton said: "There is little doubt that the annual report to shareholders is, or should be, the most important document a business firm publishes."[40]

Although the 1976 annual report had already gone to the press when the crisis broke, President Hanley, recognizing the possible repercussions of the FDA announcement, decided to include in this annual report a letter to the shareowners detailing action to date. In later annual reports, the costs of the eventual ban were detailed.

At the annual shareowner's meeting, held April 22, 1977, no questions were asked concerning the C-S bottle issue, indicating knowledge, and probably approval, of the company's handling of the C-S crisis and that communications with the shareowners had been adequate.

However, the PR department made sure that management was as ready as possible for questions by preparing a proposed question and answer sheet. This was circulated to various company and division managers and staff to check over. This is a rather commonplace procedure in publicly owned companies.

The letter to the shareowners was written by the

PR department. Edward J. Goedeker, director of Financial Relations, said the inclusion of the letter in the annual report was unusual, especially after it had already gone to press. "I've been with the company 15-16 years and I don't remember us ever doing this before," Goedeker said.[41]

Employes. Communication with employes was handled through several channels; these included bulletin board announcements, group meetings, counselling, bulletins and announcements, employe publications and others. The main ones, according to Rowley, personnel director, MCPC, during the crisis, were the bulletin boards and group meetings. Rowley and James Abrams, PR manager for MCPC then, were sent to each local plant to assist the local managers with employe and community relations during the closing of the plants.

Meetings began on the Monday and Tuesday after the February 11 announcement. Rowley said there was a "good deal of coordination" through St. Louis to ensure the messages were the same at all plants.[42]

Notices were put up by the plant manager or personnel representative after their notification of current status and any changes. According to Rowley,

"the idea was to keep the location managers up to date as to what was being done to get the ban removed" and consequently to keep the plants open. "We made a very conscious effort to communicate what the situation was immediately," Rowley said.[43]

Most messages originated with the division staff in St. Louis and were communicated via the telecopy equipment; not only was this faster than mailing, it ensured simultaneous receipt. This is an important aspect of PR communication which results in everyone having the same information and limits confusion during crisis.

The three employe categories--wage, clerical and professional/managerial--met with management on separate dates but the messages and their delivery were similar.

First, Rowley said, "we had to decide what is the employe's treatment going to be. We didn't know exactly what we were going to do and had to be prepared for what did come. So we prepared alternative scenarios; all were negative alternatives--from a scale-down to a shutdown."[44]

The only research done with this public was informal: telephone calls, personal contact, meetings, etc.

The PR and personnel departments wrote scripts and scenarios detailing what would be done for each employe

group. This was communicated to each group at separate meetings March 9-10, 1977. The employes were given "out-placement" counselling and information on benefits and what the company was doing to find them jobs once the plants were scheduled to close.

During the crisis, employes were provided with announcements, bulletins, the Monsanto Position Statement, face-to-face contact from supervisors and management/ employe meetings.

Communication with all Monsanto employes was accomplished in much the same manner but not on the same scale. All announcements and bulletins, which originated in St. Louis, were given "maximum distribution world-wide" according to Bishop. "We had a number of employes who worked with acrylonitrile [in other locations on other products] and were exposed to it. There was a need to communicate the alleged hazards and our assurances that it was safe. We weren't operating in a vacuum."[45]

Local communities. Local community relations is normally administered by the local managers with the PR department in St. Louis providing advice; but during the crisis, the PR department assumed a more direct role

through the efforts of the Rowley/Abrams team. The method of communicating with the local community was through the media and plant tours.

Canfield and Moore call plant tours "one of the most effective ways to inform the people about a business."[46]

Trade. The trade public was communicated with primarily through the trade press. Numerous articles, many direct results of press releases and briefings, appeared in the trade press during the crisis. Speeches served as another common tool in the company's communications with the trade public.

Customers. Communication with the customer public was either through the Coca-Cola Company or with their cooperation. The marketing department conducted an informal telephone poll of bottlers' attitudes and problems with the bottle. Coca-Cola sent out a question and answer booklet on the bottle. The marketing department and the PR department assisted in this and other Monsanto-Coca-Cola activities during the C-S crisis.

The immediate goal, Pratl said, was to "first contact all the customers--the bottlers--and keep them

appraised continuously of our progress with the government. There was at least weekly communications with our customers."[47]

Memoranda distributed by Monsanto were routinely shared with Coca-Cola. Press releases and other communications were cleared with Coca-Cola whenever it or the bottlers were involved.

Management/staff. Communication with the management/staff public was through memoranda, personal visits, telephone calls and meetings. After-the-fact documentation of this communication is possible only through memoranda.

An analysis of the memoranda reveals several distinct categories: 1) PR advice and counsel, 2) routing of drafts of planned communication for approval, 3) routing FYI (for your information) of published articles, editorials or broadcast excerpts, and, 4) notice of C-S related meetings, scheduled media contacts and press queries.

An excellent example of a PR director fulfilling his responsibility to advise management/staff on PR consequences of company actions is contained in a February 25 memorandum from E.S. Bauer, executive vice president, and in Bishop's response on March 2, 1977.

There were, and are, rumors that the FDA was reacting to knowledge that Jack Anderson was about to "expose" the FDA's lack of action on the C-S bottle when the agency announced its intentions on February 11.

Bauer asked Bishop to "put some thoughts together and then we can talk about whether we should do a complete thing" on the Anderson-FDA connection. Bishop responded that there were several approaches the company could take.

He advised that putting together and distributing "our own story" would be viewed as "self-serving sour grapes." The company could work through "one or more sympathetic journalists" or approach a network executive already considering "doing a number" on the FDA's stand on cyclamates.

Bishop said all of these approaches "present real risks." He explained the need for the company, in this situation, to "be clean (no skeletons in the closet)" and had better be "prepared to answer some tough (even unfair) questions." He questioned if the bottle was worth the risk, saying he would be "a lot more comfortable" if the product on which the company drew the line with FDA was "something that promised a really significant benefit to society.... that offered benefits clearly outweighing the

risks."

Another function of the PR department dealing with the management/staff public involved preparation of personnel for speeches or interviews with the media. The department would often write the speeches, coach the speakers and prepare possible questions and answers for the interviewees.

Media. Communication with the media was conducted through press conferences, briefings, interviews, telephone calls, queries, letters and personal visits.

Press conferences were held for the local press in each town by the Rowley/Abrams team. All press releases during the crisis were distributed to the local media as well as national and trade. Tours through plants were conducted for the local media and interested parties during the closing and mothballing operations. Press kits were distributed containing all current press releases, position statements, and a "Facts about Monsanto" booklet. These were sent to the local media that declined to attend the tours as well.

According to Abrams, there was "constant communication" between the St. Louis office and the local

media.[48] The only advertising during the crisis was in the local media, aimed at locating jobs for laid-off Monsanto employes.

Communication with the trade media was handled with much the same tools. Press briefings were held for the trade press in Washington, conducted by Bishop. Press kits were issued.

Relations with the general media were handled similarly but on a broader scale. News clips were provided to the broadcast media. Replies to articles and editorials were mailed and Monsanto by-lined articles were placed in receptive publications.

Numerous letters were written by the PR department to individual members of the press. These were in answer to queries; pointing out errors in articles, editorials and broadcasts; replying to allegations, or suggesting follow-up articles on the crisis or the bottle. In most instances, background material, press releases, position statements and fact booklets were included in these mailings.

Opinion leaders. This public was communicated with through speeches, letters, meetings, telephone calls,

lobbying and personal visits. Numerous letters were sent to such opinion leaders as members of Congress and their legislative assistants; officials of the FDA and Health, Education and Welfare, and state legislators.

This correspondence was in answer to queries, and should not be considered lobbying--which was conducted by Monsanto's registered lobbyists in the Washington office.

A useful tool with this public, often included in mailings, was the PR department's excerpts of Monsanto's brief and witnesses' testimony. Position statements and other material were also included.

Bishop said: "We had direct contact with various congressmen and senators at both the state and federal level." He said some senators and representatives of the states in which Monsanto plants were located called Monsanto and asked what they could do.[49]

The most used tools during the crisis were: 1) Press releases, 2) Position statements, 3) Preparedness statements, 4) Bulletins and announcements, 5) Chronology of Major Events, and 6) Brief and testimony excerpts.

The PR department issued press releases after each event of importance during the crisis. All releases were routed for approval through the legal department, the

general manager of the Cycle-Safe Division, MCPC, and the executive vice president, MCPC.

Releases of particular interest to certain management/staff were shared with them also. For example, releases dealing with plant closings, or job losses, were routed through the personnel director, C-S Division. In many instances, the releases were also shared with Coca-Cola.[50]

The releases were then distributed to the national media through the department's New York office as most media headquarters are located there. Local distribution was by messenger to assure simultaneous delivery. News clips were distributed in much the same manner.

Position statements of the company were written by the department and distributed to all publics. These were updated continuously during the crisis, and were of a more philosophical, backgrounding nature than press releases or preparedness statements.

Preparedness statements, also written by the PR department, were distributed to management/staff after each important event during the crisis period. These helped management/staff answer queries from various publics and ensured that the company's personnel were speaking from

the same information. It also prompted team spirit within the company.

Announcements and bulletins were prepared by the department and used to communicate with the employe public. These were given maximum distribution worldwide. They were posted on local bulletin boards by local managers or personnel representatives.

The "Chronology of Major Events," prepared by the department to document the crisis for historical purposes, served a double purpose. Distributed to management/staff, it served as a quick reference in answer to queries.

Exerpts of Monsanto's court brief and witnesses' testimony, as well as biographical sketches of witnesses, were sent to various publics such as the media, opinion leaders, and management/staff. These reinforced the position statements, provided management/staff and the media with information on the progress of the court proceedings and resulted also in much helpful feedback to the legal department. The company's outside counsel used the excerpts for quick reference during cross-examination of government witnesses.

An aspect of the PR effort during the crisis that greatly contributed to the total company endeavor was the

high degree of cooperation between the PR department and other segments of the company. Excellent examples of this cooperation are the excerpts mentioned above. The department also reviewed and edited all testimony by management/staff during the FDA hearings.

"From the time that signal [FDA announcement] came in, Dan [Bishop] and I worked hand-in-glove," Griffin said. "He was involved in reviewing the initial decision; he reviewed our comments; he made suggestions from time to time."

"It was an excellent example of the public relations of a major corporation working with the law department," he said. "If you didn't stand together in that case, you were courting disaster....It was perilous not to work together. It's a model, I guess, on the way in which two professions can work together...utilizing to the fullest the expertise available in public relations and law."[51]

2. Communications channels

Communications channels used during the crisis were:

1) Mail or telecopy

2) Internal distribution

3) Media

4) Face-to-face

5) Speeches

6) Meetings

7) Telephone calls

3. Timing

The timing of PR activities during the crisis was dictated by circumstances beyond the department's control. Use of PR tools followed each event of importance on the legal front.

D. Evaluation

According to Cutlip and Center, "the final step in the process is to seek, through research, answers to the questions: 'How did we do? Would we have been better off if we had tried something else?' Evaluation leads logically back to the first step."[52]

Although no formal evaluation was done by Monsanto on the effectiveness of the PR effort during the crisis, some idea of the company's opinion of the department's performance was obtained through interviews and examination of internal memoranda.

Nolan said: "C-S had a very active PR effort.... It's very difficult to 'win' in cases like Cycle-Safe. I think we won some goodwill from being very open with the press."[53]

Griffin rated the PR communications in support of the legal effort as "excellent by any objective standard."[54]

Bishop said his performance for 1977 was rated as outstanding by his superior. "I had been here 13 years and had never gotten one," he said. Bishop did evaluate the press coverage during the crisis and said "over 90 per cent" was balanced or favorable.[55]

Perhaps the best indicator of the quality of the PR effort, and a compliment any PR practitioner would appreciate, is contained in an internal memorandum from E.S. Bauer, executive vice president, on April 3, 1978, when Bishop left MCPC to become director of Environmental Relations in corporate PR. After recognizing Bishop's "great job" during the Cycle-Safe "disaster," Bauer ended with: "Keep the dedication light burning! You're a comfort to have around...."

That the publics were reached through the PR communications effort is evidenced by:

1) The numerous testimonials from management/staff during interviews with the author.
2) The over 90 per cent favorable or balanced media coverage, discussed in Chapter IV.
3) The few inquiries received by the department. "Not enough [letters] to merit analysis," Bishop said. "But most supportive and sympathetic."[56]
4) The lack of questions from shareowners at the annual shareowners' meeting.

The cost of the PR effort, though never tallied, "would be surprisingly small," according to Bishop, in spite of the open-ended budget. "We did not engage in any corporate-image type advertising. Most of the cost would be in the form of manpower, printing, postage and press clippings."[57]

The author's evaluation of the PR effort is contained in Chapter VI. The following chapter addresses media coverage of the C-S crisis.

FOOTNOTES

[1]Scott M. Cutlip and Allen H. Center, Effective Public Relations. 4th ed. (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1971), pp. 199-279 passim. The process was modified by Paul Morgan, APR, assistant professor, University of Missouri-Columbia. The modified version was used by the author.

[2]Gail Lupton, "Measuring Public Relations," Public Relations Journal 33 (November 1977):9.

[3]Cutlip and Center, Effective Public Relations, pp. 250, 357.

[4]Bertrand R. Canfield and H. Frazier Moore, Public Relations: Principles, Cases, and Problems. 4th ed. (Homewood, Ill.: Richard D. Irwin, Inc., 1973), p. 213.

[5]Dan J. Forrestal, Faith, Hope, and $5,000 (N.Y.: Simon and Schuster, 1977), p. 56.

[6]Ibid., p. 97.

[7]Interview with Dan R. Bishop, Monsanto Company, St. Louis, 22 September 1978.

[8]Canfield and Moore, Public Relations, p. 51.

[9]Interview with David C. Rowley, Monsanto Company, St. Louis, 23 October 1978.

[10]Ibid., 27 September 1978.

[11]Forrestal, Faith, Hope, and $5,000, p. 241.

[12]Ibid., p. 246.

[13]Rowley, Interview, 27 September 1978.

[14]Ibid.

[15]Canfield and Moore, Public Relations, p. 288.

[16]Cutlip and Center, Effective Public Relations, p. 358.

[17]Ibid., pp. 410-411.

[18]Canfield and Moore, Public Relations, p. 268.

[19]Interview with James Abrams, Monsanto Company, St. Louis, 2 October 1978.

[20]Interview with George Griffin, Monsanto Company, St. Louis, 9 October 1978.

[21]Bishop, Interview, 23 October 1978.

[22]Interview with Gerard Ingenthron, Monsanto Company, St. Louis, 23 October 1978.

[23]Interview with Michael J. Pratl, Monsanto Company, St. Louis, 2 October 1978.

[24]Cutlip and Center, Effective Public Relations, p. 226.

[25]Interview with Fred G. Marshall, Monsanto Company, St. Louis, 4 October 1978.

[26]Ibid.

[27]Bishop, Interview, 4 October 1978.

[28]Monsanto Company, Chemical Facts Bulletin (St. Louis, Monsanto Company, April 1978), p. 2.

[29]Monsanto Company, "Introductory Summary of Representative Public Relations Highlights Covering the 1969-1973 Period," St. Louis, 1973. (Mimeographed.)

[30]Marshall, Interview, 4 October 1978.

[31]Bishop, Interview, 4 October 1978.

[32]Interview with Joseph T. Nolan, Monsanto Company, St. Louis, 23 October 1978.

[33]Interview with Gary Barton, Monsanto Company, St. Louis, 25 September 1978.

[34]Marshall, Interview, 4 October 1978.

[35]Bishop, Interview, 22 September 1978.

[36]Nolan, Interview.

[37]Cutlip and Center, Effective Public Relations, p. 237.

[38]Canfield and Moore, Public Relations, p. 50.

[39]Monsanto Company, "1973 Marketing Plan," St. Louis, 1973. (Mimeographed.)

[40]Paul Burton, Corporate Public Relations (New York: Reinhold Publishing Corporation, 1966), p. 179.

[41]Interview with Edward J. Goedeker, Monsanto Company, St. Louis, 22 September 1978.

[42]Rowley, Interview, 27 September 1978.

[43]Ibid. [44]Ibid.

[45]Bishop, Interview, 4 October 1978.

[46]Canfield and Moore, Public Relations, p. 277.

[47]Pratl, Interview.

[48]Abrams, Interview.

[49]Bishop, Interview, 23 October 1978.

[50]Ibid., 4 October 1978.

[51]Griffin, Interview.

[52]Cutlip and Center, Effective Public Relations, p. 264.

[53]Nolan, Interview.

[54]Griffin, Interview.

[55]Bishop, Interview, 22 September 1978.

[56]Ibid.

[57]Ibid., 27 September 1978.

CHAPTER IV

MEDIA COVERAGE

This chapter evaluates the media coverage of the C-S crisis. Both the scope and nature of the coverage is addressed. The scope of coverage was determined as a result of the two clipping services, mentioned earlier, which monitored news magazines, trade magazines and newsletters, all metropolitan dailies with a circulation of 50,000 or more, and all newspapers in the plant communities.

Electronic media and general news magazines are addressed at the end of the chapter. Articles and editorials from newspapers and trade press are divided into "negative articles/editorials against company; positive articles/editorials supporting company" and "balanced/ neutral news accounts."

These divisions are then evaluated in terms of local (plant community or nearby), general, and trade press. The period addressed is February and March, 1977--the height of the media coverage.

The positive group consists of those articles/editorials which argued the company's position, deplored the FDA action or which consisted mainly of the company's side of the story.

The negative group consists of those articles/editorials which argued the FDA, environmentalist or consumer group position, deplored the company's position or consisted mostly of the FDA, environmentalist or consumer group side of the story.

The balanced/neutral group were those articles/editorials which seemed to present more of a straightforward news account, not necessarily taking sides.

Monsanto's PR department presented the media clippings to the author already divided into the three categories, as part of the media analysis conducted by Dan R. Bishop, former director, PR and advertising, MCPC. The author reviewed the divisions by the PR department, and presented a selection of 48 representative articles to four disinterested individuals.

Division of the articles into the three categories by the test group corresponded with the earlier divisions with a 67 percent agreement. However, only three of the changes were into the negative category, supporting the

conclusion that over 90 percent of the media coverage was favorable or balanced.

Of the 414 articles/editorials clipped during the two-month period, 315 (76 percent) were determined by the author to be balanced/neutral, 85 (20.5 percent) were determined to be positive to the company's position, and 14 (3.4 percent) were determined to be negative to the company's position.

The three articles/editorials determined by the test group to belong in the negative category represent 6.25 percent of the 48 representative articles presented to the group. If an additional 6.25 percent of the entire 414 articles were indeed to belong in the negative category, that category would then represent 9.65 percent of the total. This would seem to verify the author's, and Monsanto's earlier, conclusion that over 90 percent of the media coverage was positive or balanced/neutral.

The negative and positive categories are presented first to acquaint the reader with the issues involved and the media's response. Excerpts from representative articles and editorials are provided from these two categories.

Dates and short descriptive titles only are provided for those articles in the balanced/neutral category,

as the entire article would need to be provided to demonstrate the balanced coverage.

A. Negative articles/editorials against company

On March 15, the New Orleans Times Picayune carried an article entitled, "A Plastic Bottle Is Junk Forever" criticizing the plastic bottle's non-biodegradable aspect. The article stated that the public's distrust of business was caused by "industry's seeming propensity to ignore the public good in favor of a saleable product."

The Detroit Free Press carried an article "Coke Bottle Warning Issued" on February 20 which was more typical of the few negative articles in major papers, detailing the FDA action to date, along with mention of the Michigan Department of Health warning to consumers.

A typical example of the wire service's treatment of the crisis is an Associated Press story on the same date, entitled "Plastic bottle ruling hurts Monsanto." The article detailed the Monsanto cutbacks in the bottle-fabrication plants, bringing the reader up to date on the legal battle.

Only two stories were located on the editorial or opinion page. One, in the weekly Modern People, Franklin

Park, Ill., entitled "Coke Bottles Linked to Cancer," said the only real advantage of the bottles was that they did not shatter when broken. The other, on the opinion page of the Alexandria (La.) Town Talk, was entitled "Ban on Plastic Containers Eased" and told readers that "it still isn't against the law to ban such things from your own household just because the government hasn't got around to doing so yet." Monsanto had just received its reprieve from the federal court staying the FDA ban.

Two letters to the editor are included in this section. One praised the FDA ban, and the other deplored the plastic bottle as a source of litter.

B. Positive articles/editorials supporting company

In the trade press, Plastics Focus carried articles on February 21 and March 28. One called the FDA ban a "kick in the head for Coca-Cola's strong marketing effort," and said it was unfortunate the FDA went to the press before all data was available from the MCA tests. The other article covered the federal court action in setting aside the FDA ban.

Food & Drug Packaging carried articles on March 10 and 24. The first was an editorial expressing the hope

that the FDA would not carry through with the ban; the second reported a persistent rumor that the FDA was "faked" into announcing it would ban the C-S bottle by reports of a forthcoming Jack Anderson column taking the FDA to task for not banning the bottle already, in light of the MCA tests. Modern Packaging also mentioned the Anderson article and its possible effect on the FDA in a March issue article "Acrylonitrile blackmail at FDA?" If the column ever did exist, it was never published.

Articles and editorials in a similar vein were carried in Petrochemical News, Chemical and Engineering News, Chemical Marketing Reporter, Chemical Week, Packaging Digest, Colorado Beverage Analyst, Beverage Industry, Plastics World, and Plastics Technology.

The local media coverage also was quite heavy. The Holyoke (Mass.) Daily Transcript/Holyoke Telegram on February 22 carried a typical local editorial entitled "Our Wondrous Government" which took the government to task for "being oh so terribly concerned about unemployment, but somehow manag[ing] to make a healthy contribution to same." Like most of the other local media, the paper considered the toxicity tests as either inaccurate or unrealistic.

The Havre de Grace (Md.) Record carried an editorial on February 23 deploring another "cyclamate affair in the making."

The Hartford Courant carried two articles on March 4 detailing the protests of Connecticut members of Congress to the proposed ban. The Manchester (Conn.) Journal Inquirer was the most supportive local paper with six articles in this category. Two, on March 9 and 10, dealt with the job losses. Another on March 9 dealt with Coca-Cola's statement that the bottle was safe. Another, also on March 10, covered a Monsanto-sponsored tour of one of the plants. Two others, on March 11 and 15, detailed the legal battle.

The Baltimore News American carried an article on March 14 on Monsanto's efforts to locate jobs for laid-off workers and ran an editorial on March 16 entitled "A Tragedy" on the closing of the Havre de Grace plant.

The Baltimore Sun carried an editorial on March 20 explaining the need to repeal the Delaney Clause (of the Food, Drugs and Cosmetics Act, which enabled the FDA to ban any suspected carcinogen) and stating: "As the Monsanto case illustrates, there is no guarantee that if a government agency has the authority to act with common

sense, it will do so." (The Delaney Clause was a favorite target during this period--and still is in the industry. The clause actually requires the FDA to take action, such as the C-S ban, as it is worded.)

Other local papers which carried articles in this category were the Winsted (Conn.) Citizen; the Waterbury (Conn.) American, the Springfield (Mass.) Union, the Torrington (Conn.) Register, the Lansing (Mich.) State Journal, the New Bedford (Mass.) Standard-Times, the Willimantic (Conn.) Chronicle, and the Manchester (Conn.) Herald.

An identical editorial, deploring the job losses, was carried by four papers: the Colorado Springs (Colo.) Gazette Telegraph (February 24); the Panama City (Fla.) News-Herald and the Columbus (Neb.) Telegram (March 3), and the Gastonia (N.C.) Gazette (March 15). The editorial was written by a syndicated editorial writer who interviewed Bishop.

The general media carried fewer articles in this category than did the local or trade press. The Wall Street Journal reported the plant closings and statements by Monsanto on February 22. The Kansas City Star did the same on March 11. On March 14, the New York Journal of

Commerce and Louisville Times covered the court stay of the FDA ban. The St. Louis Post-Dispatch covered the court order setting aside the ban on March 20.

On March 22, the St. Louis Globe Democrat carried an article on the Monsanto 1977 annual report and mentioned President Hanley's letter to the shareowners on the C-S ban.

Other articles in this category were carried by the San Diego Daily Transcript, the Attleboro (Mass.) Sun Chronicle, the Poplar Bluff (Mo.) American Republic, the Rochester Times-Union, the San Diego Evening Tribune, the Newport (R.I.) News, the Mobile Register, the Flint (Mich.) Journal, the Hazleton (Pa.) Standard-Speaker, and the Coos Bay (Ore.) World.

C. Balanced/Neutral news accounts

The New York Times carried articles in this category on February 12, on the FDA announcement; February 19, on the plants closing; March 8, on the FDA ban and Monsanto appeal; March 16, on the FDA and bureaucracy vs safety (editorial); and on March 20, on the court-ordered stay.

The Wall Street Journal carried stories in this category on February 14, on the FDA announcement; March 8,

on the FDA ban; March 9, on Canada's clearance for acrylonitrile use; March 14, on the court stay of the FDA action; and on March 21, when the court set the ban aside.

The Chicago Daily News carried articles on February 15, quoting Monsanto's statement that the bottle was safe; February 19, on the plant closings; March 8, on Monsanto's appeal; and on March 21, when the ban was set aside.

The Christian Science Monitor carried a story on the crisis on February 16 and on the court-ordered stay on March 14. The St. Louis Globe Democrat ran two stories on February 16 on the bottle ban, and on February 19 on plant closings. The Washington Post reported February 24 that a Michigan food store chain was buying back the bottles from customers.

The St. Louis Post-Dispatch ran stories on February 16, on Monsanto's meetings with the FDA; March 8, on Monsanto's suit, and March 14, on the court-ordered stay. The Washington Star carried stories on February 19, on plant closings, and March 2, on new plastic bottles coming out in the wake of the C-S crisis. The New York Post mentioned, briefly, the plant closings on March 23.

The New York Journal of Commerce ran articles on

February 22, on plant closings; March 1 and 2, on new plastic bottles; March 8, on Monsanto's appeal; March 9, a follow-up on the appeal; March 16, on Monsanto's job hunt for employes; March 18, on the basis for Monsanto's appeal; and March 22, on the court setting aside the ban.

The National Observer said on March 5 that environmentalists should not expect the ban to stop production of all plastic bottles. The Boston Globe ran articles on February 19, on the layoffs; March 6, on the ban and layoffs; and March 8, on Monsanto's appeal. The Detroit Free Press and Kansas City Star ran articles on the ban on March 8.

The Los Angeles Times and Cincinnati Post ran similar articles on the Monsanto appeal on March 8.

Other general press papers who carried articles in this category were: the Grand Rapids (Mich.) Press, the Ann Arbor (Mich.) News, and the Baltimore Evening Sun. There were over 60 other general press papers identified which carried an article/editorial in this category.

In the local press, the Hartford Courant ran articles on February 12, on the initial FDA announcement; February 13, on possible plant closings; February 15, on

Monsanto-FDA talks; February 19, 24, 25 and 26 on layoffs; and February 27, on acrylonitrile.

The Manchester (Conn.) Journal Inquirer ran articles February 14 and 15 on possible plant closings; February 16 on Monsanto's defense; February 18, 25 and March 8 on closings; February 19, on Coca-Cola halting C-S bottle use; February 22, pro and con on toxicity testing procedures; March 9, on Canada okaying acrylonitrile use; and March 17, on toxicity tests.

The Holyoke (Mass.) Daily Transcript/Holyoke Telegram ran articles on February 19, on layoffs; March 8, on the ban, and March 19, on the court stay.

Twenty-three other papers in the local category who carried balanced/neutral articles were identified by the author.

In the trade press, Package Engineering carried an article in its February issue on grocers pulling the bottles from their shelves. In its March issue, it covered the legal battle. Food Chemical News gave the crisis the most extensive coverage in this category. On February 21, it ran an article on the initial FDA announcement. FCN ran other articles on February 28, on the expected ruling; March 7, on the ban; March 14, on

Monsanto's appeal; March 21, on the court-ordered stay; and March 28, on a Society of Plastics request to a House subcommittee that the Delaney Clause be amended.

Beverage Insight carried articles on February 18 on the FDA's announcement, and March 18 on the court-ordered stay. Chemical Week ran articles on February 23, on the FDA announcement; March 2, on the FDA decision to suspend approval; and March 16, on Monsanto's appeal.

Chemical and Engineering News ran articles on February 21 on the impending ban, and March 14 on the ban. Chemical Marketing Reporter carried stories on February 21 on the initial FDA announcement; February 28, on plant closings; March 14, on the ban and Monsanto's appeal; and March 21, on the court-ordered stay and legal battle. Twenty-two other trade publications carried stories in this category.

The general news magazines, excluded from the above discussion, contained two articles; both were outside the two-month period studied. One, in U.S. News & World Report, 30 May 1977, entitled "Is Law on Food Additives Too Strict?" was in the balanced/neutral category. The other, in Newsweek, 16 May 1977, entitled "Regulation: What Price Safety?" was in the positive category.

Coverage of the crisis by the electronic media (i.e., radio and television) was primarily limited to the St. Louis area and the plant communities. However, interviews were conducted by the networks of J. Virgil Waggoner, general manager, C-S Division, Monsanto (by ABC), and of Bishop (by CBS).

Because transcripts available to the author are not all-inclusive, as the newspaper and magazine clippings are, discussion of the electronic media coverage is limited to the above.

In summary, certain trends were observed. Both the trade and local press articles were almost entirely in the positive or balanced/neutral category. Only the trade press covered the rumors about the Anderson-FDA connection. The trade press had as many articles in the balanced/neutral category as in the positive category.

During the two-month period studied, the general press, with two exceptions, fell into the balanced/neutral or positive category. After the two-month period, however, the general press articles identified by the author are in the positive category. The New York Times, on April 13, carried an article in this category. On May 16, the St. Louis Globe Democrat ran an editorial entitled

"How the FDA Mauled Monsanto" saying the FDA action "might have been expected in a dictatorship but not in the United States."

The latest example in the general press, in the 10 October 1978 Wall Street Journal, deplores the triple FDA standard for acrylonitrile, saying:

> The acrylonitrile problem, as it happens, is a perfect microcosm of the problem of regulation and growth. . . The upshot of all this is that we have three AN [acrylonitrile] standards; [2,000 parts per billion for worker exposure, 300 parts per billion for margerine tubs, but] even if these standards are met, thou shalt not use AN bottles for Coke. . . . And having to guess when this kind of regulation will strike again doesn't do much for anyone's willingness to take the risks of investment and innovation.

The article also said the FDA action "was also apparently speeded by the prospect of an expose by Jack Anderson...."

The next chapter examines the Monsanto answer to the "problem of regulation and growth" mentioned above--a grass-roots educational effort by the company's PR and advertising departments--backed by a $4.5 million annual investment.

CHAPTER V

AFTERMATH: THE CHEMICAL FACTS OF LIFE PROGRAM

The Chemical Facts of Life (CFOL) program is a direct result of the Cycle-Safe experience. The company recognized the need for a grass-roots educational program on chemicals. The company's objective, as mentioned earlier, is to bring about a more reasonable, objective public perspective of chemicals and, consequently, more practical government regulations.

The C-S experience "really brought home the power of the government to act in a situation like this," said Gary Barton, manager of Environmental Communication, Monsanto. "There really hadn't been anybody fighting back as such. 'Chemophobia,' an irrational fear of chemicals, was perceived. Someone has to tell the chemical side of the story."[1]

The program is a joint effort of the corporate PR and advertising departments. It consists of paid advertising; speakers' bureau; film; exhibit; booklets;

newsletters; speeches; lobbying; news releases; and by-lined articles.[2]

"There's nothing tremendously unique about it," Barton said. "It's a matter of doing a lot of the established communication procedures and doing them well."[3]

The CFOL program started in September 1977 with a worldwide mailing of "The Chemical Facts of Life" booklet to all employes. President Hanley included a letter in the mailing, introducing the program.[4]

Literature of the CFOL program includes:

"The Chemical Facts of Life" booklet: Described as the "basic educational tool in the CFOL program," it is the most widely distributed. More than 300,000 have been distributed in five countries, in three foreign languages.

The "Chemical Facts Bulletin": The monthly bulletins, entitled "Public Affairs Bulletins" if on political topics, serve to answer public inquiries, are included in mailings, and provide spokesmen information on chemicals and their need.

A "Chemicals and You" promotional packet: Mailed to over 5,000 civic organizations, this packet describes the availability of Monsanto speakers and contains sample speeches.

Other aspects of CFOL are:

Executive Spokesmanship: This section includes the Speakers' Bureau, which is discussed at length later, and a "How to Meet with the Media and Survive" slide presentation for executives. All speeches are publicized.

An exhibit: The exhibit has been displayed at three major museums.

> A "Chemicals: A Fact of Life" motion picture: 400 reprints have been made for general distribution.[5]

CFOL advertising now includes three television commercials and print advertisements in Time, Newsweek, U.S. News & World Report and Sports Illustrated.

The CFOL mailing list numbers about 10,000--4,000 or so "thought leaders" and 6,000 special-request recipients.[6]

The rest of the chemicals industry is following the program with interest, some organizations have initiated their own, similar, programs with comparable budgets.[7]

The Speakers' Bureau, under Ms. Vivian Eveloff, is perhaps the key part of the CFOL program, from a PR standpoint. With a budget of $22,000, it has "probably the highest return for so few dollars invested of any part of the program."[8]

Canfield and Moore said:

> Oral communication can be an organization's most effective and least expensive medium....In addition it affords two-way communication through the information the speakers' receive....[9]

They went on to say:

> Its functions may include any or all of the following: recruiting and training employee volunteer speakers; securing speaking engagements; aiding the management ...in organizing and conducting speaking programs in

> their communities; speech writing and research.... An important function of a speakers' bureau is to collect material and aid speakers in selecting subjects.[10]

The authors could have used Monsanto's Speakers' Bureau as an example. Ms. Eveloff recruits speakers from various plants at the quarterly Business Climate Committee meetings. She sells the idea to the local managers who accept and recommend volunteers to her. These speakers attend a professional training session, are given a speakers' kit with sample speeches and information on chemicals, and then write their own speeches.

"None of the sample speeches are as good as they could be with your personal experiences thrown in--from community experience, technical experience and family life," Ms. Eveloff tells the speakers.[11]

The speakers receive up-to-date information on the program, factual data on chemicals, corrections, and figures that they may want to use in their speeches through the "Speakers' Bulletin," a monthly publication by Ms. Eveloff's office.

Ms. Eveloff, aided by regional representatives, coordinates the speeches through her St. Louis office. Requests are matched to speakers by subject matter and

location.

Each speaker receives a personal letter from President Hanley. "The important thing is that people see the chief executive officer is behind the program," Barton said.[12]

Ms. Eveloff monitors the spokesmen through audience critiques. Six presentations per year are critiqued. The critiques are mailed to Ms. Eveloff by the respondents. She receives about an 85 per cent "good to very good" response rate.[13]

She has found that respondents are "frequently familiar with Monsanto ahead of time" but says "we're not out to sell Monsanto products" but to sell the risk/benefit story of chemicals. She said there is a "fair amount" of favorable movement in the risk/benefit area in the responses, which has a "halo effect" on the chemical industry as a whole.[14]

When Ms. Eveloff took over the bureau in August 1977, she did an informal survey of other companies' speakers' bureaus and identified two roads to follow: the laissez-faire route, which grants much freedom to speakers; or the tightly controlled route which has one standard "free enterprise" speech allowing little variation

by the speakers.

Monsanto adopted the laissez-faire route and has encountered no problems while gaining an important "plus," according to Ms. Eveloff. "We get multiple requests from a single organization. They know they will get different speeches," she said. One example she gives is a dry-cleaning organization which asked for Monsanto speakers at all 18 of their meetings along the East Coast.[15]

A spin-off of the CFOL program, if and when it is handed over to an industry association or group, will be a corps of experienced Monsanto spokesmen.

The CFOL program as a whole is getting high marks from management. Vice President-Public Affairs Joseph T. Nolan said: "Eighteen months ago, risk and benefit was an esoteric concept, not many people were talking that way. I think the fact that they are now is due, in part but only in part, to the CFOL. It was at that time we concluded that the most important thing we could do was to help bring about a more balanced perspective on the part of the public....to get people to think and act sensibly about chemicals. This is the primary objective of the CFOL program."[16]

FOOTNOTES

[1]Interview with Gary Barton, Monsanto Company, St. Louis, 25 September 1978.

[2]Interview with Joseph T. Nolan, Monsanto Company, St. Louis, 23 October 1978.

[3]Barton, Interview.

[4]Monsanto Company, "First Year Report: Chemical Facts of Life Program, Sept. 1, 1977-Sept. 1, 1978," St. Louis, 1978. (Mimeographed.)

[5]Ibid. [6]Ibid.

[7]Nolan, Interview.

[8]Interview with Vivian Eveloff, Monsanto Company, St. Louis, 4 October 1978.

[9]Bertrand R. Canfield and H. Frazier Moore, Public Relations: Principles, Cases, and Problems. 4th ed. (Homewood, Ill.: Richard D. Irwin, Inc., 1973), p. 146.

[10]Ibid., p. 147.

[11]Eveloff, Interview.

[12]Barton, Interview.

[13]Eveloff, Interview.

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[16]Nolan, Interview.

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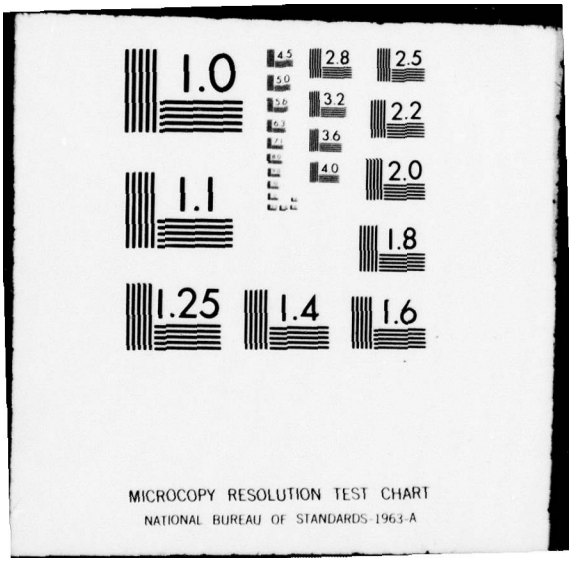
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CHAPTER VI

CONCLUSIONS/RECOMMENDATIONS

The author considers the Monsanto PR effort during the C-S crisis an excellent example of professional PR planning, programming and execution, worthy of examination and emulation by other PR practitioners.

Although the long-range goal of ensuring "that the public perception of Monsanto during the C-S experience was one of corporate responsibility and concern..."[1] was not measured by any objective methods, it appears that each of the publics was adequately communicated with, that the messages were written in accordance with proper journalistic procedure,[2] and that the PR effort was conducted in a throughly professional manner.

Also, the favorable press received, the lack of unfavorable mail and the absence of questions from the company's many publics indicates, in the author's opinion, acceptance and probable approval of Monsanto's performance by the company's publics, and indicates that this performance was adequately communicated.

The PR department, through professional use of PR tools, ensured that each segment of the company spoke with one voice to its many publics.[3]

The "Chronology of Major Events," position and preparedness statements, and brief and testimony excerpts are not mentioned in the textbooks reviewed by the author as typical PR tools. However, their use by Monsanto contributed a great deal to the company effort and demonstrates the substantial rewards of ingenuity and flexibility in PR practice.

Cooperation between the PR department and other management/staff was superb--especially with the personnel and legal departments. This spirit of cooperation is continuing in the CFOL program between the corporate PR and advertising departments.

According to Vice President-Public Affairs Joseph T. Nolan, "it's not accidental, but by design. The chairman has issued orders that these people work closely together. Here it is standard operating procedure..."[4]

Canfield and Moore said:

> A public relations department must work in close cooperation with all departments of an enterprise. Without the understanding and active support of the personnel and industrial relations departments effective public relations is impossible.[5]

During the crisis, the company's approach appeared to be that of presenting its case honestly and completely to its publics, and hoping for the best. That the best, i.e. a turn-about on the part of the FDA, has not occurred is not a reflection on the PR department's efforts, but a result of today's public and political attitude toward chemicals.

In spite of extensive safety and environmental effects testing; the 1973 scientific symposium in Hartford, where non-industrial scientists examined--at the company's behest--all aspects of the bottle; and an attitude of honesty and frankness unusual in today's secretive society, Monsanto lost a lucrative and highly innovative product.

Nolan was correct when he said: "There is some irony here; a lot of people who get into trouble with the FDA and regulatory agencies didn't do anything; here, we did all this, and got into trouble."[6]

Recommendations

The author has two recommendations: one dealing with the C-S crisis PR effort, and the other dealing with the company's on-going CFOL program.

First, the author feels that Monsanto should

document and evaluate, in a more palatable format than the author found, the publics identified and PR tools used by the MCPC PR department during the C-S crisis.

The CFOL program, intended to prevent future occurrences such as the C-S experience, will take a long time to reach fruition. It will also take the combined efforts of the entire chemicals industry to bring about the desired changes in public and political attitudes toward chemicals.

Experiences such as C-S are likely to reoccur in the meantime, as technology continues to outstrip outdated regulations.

The author's suggested evaluation would assist the company's PR department in the hypothetical crises described above. It is the author's hope that his study will provide a starting point for an objective company evaluation of the C-S crisis PR effort, the last step in the four-step problem solving process used in this study.

The author's second recommendation is that the company establish regional offices staffed by full-time PR personnel to coordinate and supervise the functions of the Speakers' Bureau in specified regions.

In a worldwide organization, the author feels, there is an inevitable "gap" between the world headquarters and the local-community speaker which is best filled by a professional PR practitioner, rather than by a company employe with other duties. Although the Speakers' Bureau seems to be functioning very well now, the tremendous growth of the last year indicates great potential. This potential should not be stifled by organizational constraints. Given the cost efficiency of a speakers' bureau, and its tremendous community relations potential, the maximum number of speakers should be roughly equal to the company's employment.

FOOTNOTES

[1]Interview with Dan R. Bishop, Monsanto Company, St. Louis, 4 October 1978.

[2]Bertrand R. Canfield and H. Frazier Moore, Public Relations: Principles, Cases, and Problems. 4th ed. (Homewood, Ill.: Richard D. Irwin, Inc., 1973), pp. 122-123.

[3]These tools include position and preparedness statements, memoranda, and the "Chronology of Major Events."

[4]Interview with Joseph T. Nolan, Monsanto Company, St. Louis, 23 October 1978.

[5]Canfield and Moore, Public Relations, p. 100.

[6]Nolan, Interview.

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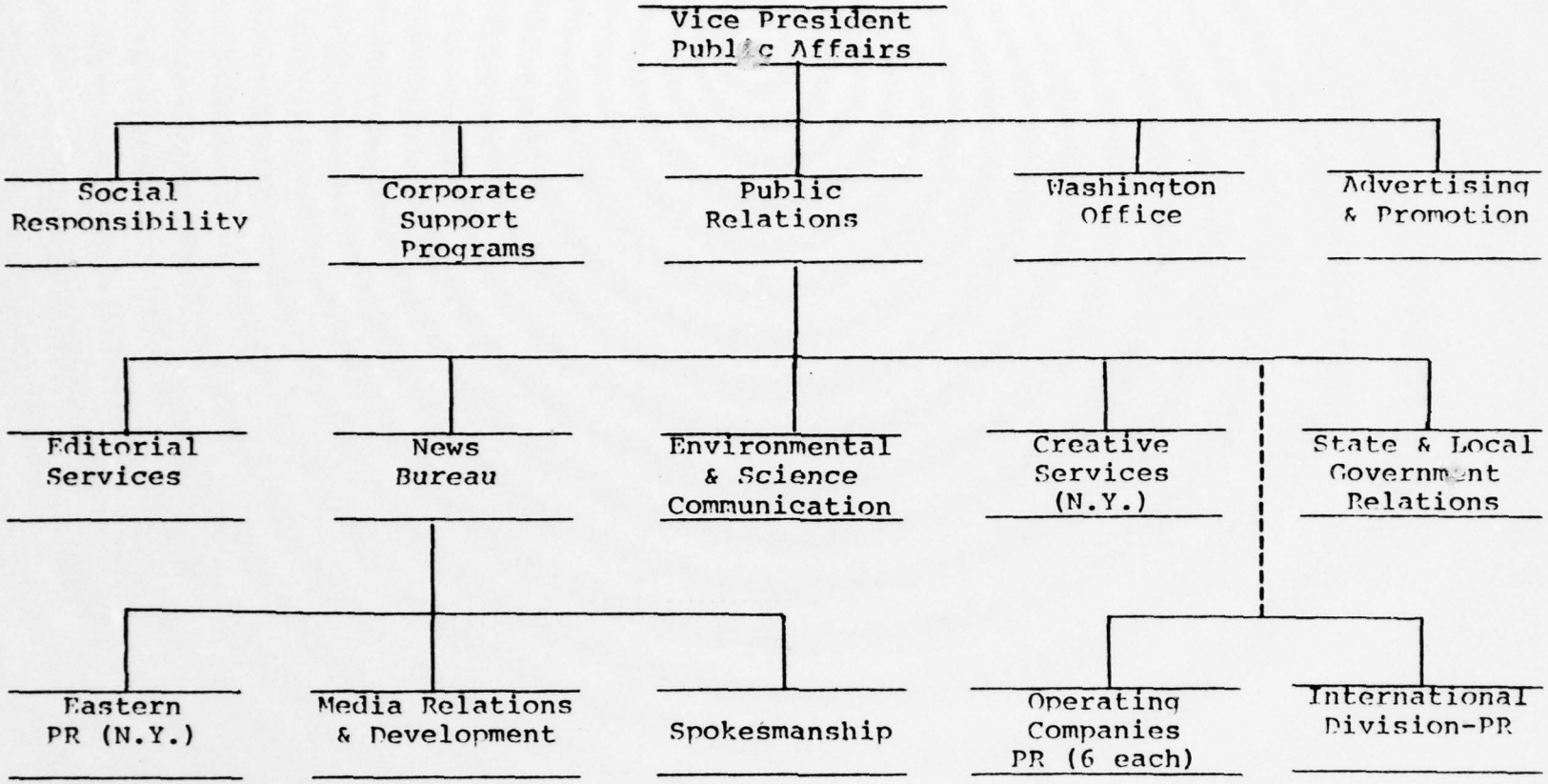
APPENDIX 1

ORGANIZATIONAL CHART: MONSANTO COMPANY PR


Vice President
Public Affairs
Social Responsibility
Corporate Support Programs
Public Relations
Washington Office
Advertising & Promotion
Editorial Services
News Bureau
Environmental & Science Communication
Creative Services (N.Y.)
State & Local Government Relations
Eastern PR (N.Y.)
Media Relations & Development
Spokesmanship
Operating Companies PR (6 each)
International Division-PR

APPENDIX 2

"CHRONOLOGY OF MAJOR EVENTS"

Revised 9/27/77

CHRONOLOGY OF MAJOR EVENTS
WITH RESPECT TO CYCLE-SAFE BOTTLES

1) February 1975 - FDA issues Food Additive Regulation 121.2629 (now recodified as Section 177.1040) to allow the safe use of the acrylonitrile/styrene resin in the manufacture and sale of containers for packaging carbonated beverages.

2) April 21, 1976 - National Resources Defense Council (NRDC) files suit charging the FDA violated the Food, Drug and Cosmetic Act by approving the marketing of the acrylonitrile-containing plastic carbonated beverage bottle.

3) Nov. 9, 1976 - MCA presents results of Dow-teratology study to FDA. Study showed toxic effects in pregnant rats when force-fed extremely high levels of the AN monomer (65 mg. per kg. of body weight per day).

4) Jan. 12, 1977 - MCA presents interim (13-month) report from industry-funded on-going chronic feeding study being performed by Dow toxicologist.

5) Feb. 11, 1977 (9:30 A.M.) - Reporter Les Whitten from Columnist Jack Anderson's office contacted the MCA and asked if there had been much news media interest in the chronic feeding study (he was told there had not been much interest). He then asked for a copy of the MCA news release and indicated he might do something on the subject.

Monsanto contacted Whitten and offered to cooperate in the development of the article. The offer was declined.

6) Feb. 11, 1977 (3.00 P.M.) - FDA issues press release announcing its intentions to suspend its approval for the use of plastic bottles made from acrylonitrile for carbonated beverages and beer, saying the bottles are being test marketed and are not in general use.

7) Feb. 11, 1977 (4:00 P.M.) - New York Times contacts Coca-Cola (Atlanta) for statement in reaction to FDA's press release. This was Coke's first knowledge of the FDA action.

8) Feb. 11, 1977 (4:30 P.M.) - Coke refers New York Times to Monsanto (Monsanto's first knowledge of the FDA action).

9) Feb. 11, 1977 (7:00 P.M.) - Monsanto PR contacts New York Times and issues statement regarding FDA announcement.

10) Feb. 14, 1977 - Monsanto officials meet with Acting FDA Commissioner and Staff to request reconsideration based on no-migration data. Parties agree to meet later in the week to review additional data.

Monsanto informed the Acting Commissioner that bottles were in commercial use in 12 states (not being test marketed) and that they were being made in three plants employing over 800 people.

Some Coke bottlers cancel future bottle orders pending further clarification of FDA intentions.

11) Feb. 15, 1977 - FDA publishes its intention to suspend bottle regulations at a "future date." Supermarkets in Grand Rapids, Mich., and Louisville, Ky., pull bottles off the shelf. News media in several areas, particularly Michigan carry inaccurate accounts, quoting FDA official as saying the bottle has been suspended, AN is migrating into the product, AN caused cancer in rats, bottles may be recalled, etc.

12) Feb. 16, 1977 - Monsanto meets with FDA technical personnel and presents results of additional tests designed to show no migration under conditions of normal use. FDA takes the material under advisement and indicates they will take it into account prior to issuing decision. Monsanto asks that reasonable, safe standards be set and quickly.

13) Feb. 18, 1977 - Monsanto forced to temporarily shut down its three bottle plants and a supporting resin manufacturing unit, idling some 600 workers- due to excessive inventory situation and total confusion in the market place as to FDA's timing and intentions.

Meanwhile, medical doctor in charge of disease control center in Michigan State Health Department issues news bulletin warning consumers not to drink Coke from plastic bottles.

UPI and AP contact FDA Public Affairs office for update information and are told bottle has been banned because AN causes cancer and birth defects in rats and the chemical leeches into the Coke.

14) Feb. 21, 1977 - Food Chemical News published article regarding FDA's imminent suspension in which it reports that "This decision was actually made by FDA-ers Feb. 9, and it was planned that it would become public with publication of a Federal Register document on Feb. 15."

The article goes on to report, "However, FDA-ers received word late last week that syndicated columnist Jack Anderson was planning to blast the agency for receiving the recently-generated adverse data on acrylonitrile without taking any action. Apparently successfully averting the bad publicity, FDA late on Feb. 11 issues a news release which said it would suspend its approval. . ."

15) Feb. 23, 1977 - Monsanto contacted by Michigan State Senator John Otterbacher's office for Cycle-Safe information to aid the Senator in quelling the near-panic situation existing in the state due to the medical bulletins issued by the Health Department. Aide Bill Perry says he had been in contact with FDA Detroit Regional office and was told the bottle has not been banned, it's completely legal and poses no health hazard to consumers.

16) Feb. 23, 1977 - Chemical Commentary, a newsletter distributed by Morgan Stanley Co., published an article titled, "The Acrylonitrile-Based Container Saga: Part II" in which it reports, "On Friday, Feb. 11, the FDA unexpectedly issued a news release announcing its intentions to stay the prior registration of the acrylonitrile-based (AN) plastic container for carbonated beverages and beer. . .

According to several sources close to the situation, the apparent impetus behind the FDA's decision was the belief that columnist Jack Anderson was about to publicize the agency's inaction in the face of arguments against this plastic bottle.

17) Feb. 25, 1977 - Michigan State Senator Otterbacher issues press statement saying AN plastic bottle presents a serious threat to health and welfare of the people of Michigan. He calls on Coke to voluntarily halt distribution and asks FDA to remove bottles from market place in Michigan and the rest of the country. Threatens to introduce legislation to stop sales in two weeks.

18) March 2, 1977 - Chemical Week Magazine publishes article, "FDA Closes Lid," in which it states, "The FDA had decided to suspend its approval of acrylonitrile bottles for soft drinks after reviewing safety test data submitted by the industry."

"Nothing we have seen changes our view that the bottles leech out unsafe amounts of acrylo monomer, Acting FDA Commissioner Sherwin Gardner said last week."
(Note CW deadline for this issue was Thursday, Feb. 24, 1977.)

19) March 3, 1977 - Monsanto official met with FDA's Bureau of Foods Staffers to review additional test data.

20) March 3, 1977 - At a meeting with Monsanto and SPI officials today, Dr. Howard Roberts, Director of the FDA's Bureau of Foods, said the FDA was suspending the regulation based on the teratology and chronic feeding results."

21) March 7, 1977 - Monsanto officials meet with FDA Acting Commissioner S. Gardner and are told the order suspending the bottles has been signed and will be published in the Federal Register on Friday, March 11, 1977.

FDA issues press release, announcing the suspension, citing results from on-going toxicity studies, FDA migration studies and potential consumer exposure as reasons.

22) March 7, 1977 - Monsanto files suit in U.S. Court of Appeals for the District of Columbia, seeking to restrain the FDA from issuing the Order and further petitioned the court for a hearing on the proposed suspension.

23) March 8, 1977 - Harry Teasley, Vice President, Coca-Cola International calls Cycle-Safe bottles safe and "one of the most exciting packaging materials we've seen," during speech at a packaging seminar at Michigan State University.

24) March 9-10, 1977 - Monsanto holds employe meetings at its Cycle-Safe locations regarding the suspension of manufacturing-associated operations and layoff plans.

25) March 9, 1977 - Canadian Federal Health Department clears acrylonitrile for use in food packaging applications except alcoholic beverages.

26) March 10, 1977 - FDA announces its intentions to ban saccharin because it caused cancer in Canadian laboratory animal studies. In taking this action, the agency was invoking the so-called "Delaney" clause. FDA set aside 30 days for comments and another 60 days for hearings, indicating that no order would be issued until June or July.

27) March 11, 1977 - FDA, responding to court order, submits supporting data which claims it has extraction tests showing AN migration from Monsanto bottle at 80 ppb at 120°F for six months (exaggerated test conditions) and in Coca-Cola itself, at 13 to 20 ppb, from bottles purchased at retail.

28) March 11, 1977 - U.S. Court of Appeals for the District of Columbia Circuit grants Monsanto an interim stay of the FDA suspension order pending a hearing on oral arguments scheduled for March 16, 1977.

29) March 11, 1977 - New York Times and other leading news media editorially call for public hearings on the saccharin ban and suggest that the "Delaney" clause needs revising. Almost all accounts ridicule the unrealistic test levels involved in the saccharin case (800, 12 oz. bottles per day for life).

30) March 16, 1977 - Monsanto presents oral arguments to a three-judge panel of the U.S. Court of Appeals for the District of Columbia Circuit. The thrust of company's plea was that the FDA must proceed by public notice and allow 30 days for comments and 60 days for hearings -- just as it did in the saccharin case.

FDA plea was argued by Department of Justice attorney and supplemented by attorney Marsha Cleveland, representing NRDC.

Court took the matter under advisement, giving no indication as to when it might issue its decision. Meanwhile the interim stay of the FDA order remained in effect.

31) March 18, 1977 - In a unanimous decision, the U.S. Court of Appeals for the District of Columbia set aside the FDA suspension order and further ordered HEW/FDA to hold public hearings and reach final conclusions and findings by May 18, 1977.

In handing down its decision, the three-judge panel termed the FDA's actions "arbitrary and capricious."

32) March 21, 1977 - Chairman and President J. W. Hanley in a letter to shareowners reports that an indefinite suspension of Cycle-Safe operations could cost Monsanto 40 to 45 cents per share on its 1977 earnings.

33) March 21, 1977 - Hearings being held in the U.S. House of Representatives on the "Delaney" Clause and the proposed saccharin ban.

34) April 1, 1977 - The Department of Health, Education and Welfare set April 18, 1977, as the date for a public hearing on the safety of beverage containers made of acrylonitrile. The notice of hearing was dated March 29 and was printed in the Federal Register April 1.

35) April 6, 1977 - Borg-Warner Corp., and Vistron Corp., (two major AN producers) intervene in the AN hearing.

36) April 11, 1977 - At a prehearing Conference the NRDC suggested that the agenda be expanded to include hydrogen cyanide, styrene monomer and styrene oxide. Administrative Law Judge Daniel Davidson accepted the suggestion.

37) April 11, 1977 - MCA reported to FDA new data from on-going chronic feeding study on AN which showed tumorous effects in rats being fed 35 ppm -- the lowest dose being administered.

38) April 14, 1977 - The U.S. Court of Appeals for the D.C. Circuit, acting on a joint motion by all parties, granted a 120-day extension (to Sept. 19, 1977) of the time frame provided for the hearing on AN.

39) April 19, 1977 - At a second pre-hearing conference, the AN hearing schedule was established. The actual hearing will run from June 20-29, 1977. The initial decision will be issued by August 10 and the final decision by Sept. 19, 1977.

40) May 23, 1977 - The DuPont Company announced preliminary results of an epidemiological study of workers with potential for exposure to acrylonitrile at its textile fiber plant in Camden, S.C., indicate excess cancer incidence and cancer mortality, as compared with company and national experience.

41) June 20-29, 1977 - The Hearing was held before the Food and Drug Administration in the matter of: Acrylonitrile Copolymers used to Fabricate Beverage Containers.

In its Brief, the FDA contended that 1) acrylonitrile monomer may reasonably be expected to become a component of food in its intended use and that this need not be shown by actual meas-

urement, 2) extraction (migration) testing for six months at 90°F are appropriate conditions of intended use and 3) the data of record in this proceeding fail to establish that the use of acrylonitrile as beverage containers is safe as required by law.

In its Brief, Monsanto contended that 1) acrylonitrile monomer cannot be found to migrate from its bottles to food under intended conditions of use, using the most sensitive analytical technique currently validated, 2) that since acrylonitrile monomer cannot be found to migrate, it cannot reasonably be expected to become a component of food and is therefore not a food additive within the meaning of the law and 3) the new Cycle-Safe bottle is safe for use as a carbonated beverage container under its intended conditions of use within the meaning of the law.

The Administrative Law Judge will issue an initial decision in this case by August 10, 1977 and the Commissioner, Food and Drug Administration, is required to issue the final decision on September 19, 1977.

42) July 27, 1977 - At an on-the-record trade press briefing in Washington, D.C. Monsanto announced the details of three new company-sponsored AN animal feeding studies.

43) August 4, 1977 - Administrative Law Judge Daniel Davidson issues his initial decision. In the 41-page document he concluded that "Acrylonitrile Copolymers used to fabricate beverage containers:" 1) are food additives, and 2) have not been shown to be safe. He also ordered the regulations governing their use for beverage containers to be withdrawn until further notice.

44) August 15, 1977 - Monsanto filed its appeal from the initial decision and request for oral argument. The major thrust of the exceptions, as contained in the 72-page document, flowed from the Administrative Law Judge's failure to confront the essential jurisdictional issue presented

- in this case, i.e., "sliding by the question of food additive status without the kind of fair evaluation of the entire record which the statute requires." Monsanto took exception in six general areas and seven specific areas in building its case for appeal to the Commissioner of the Food and Drug Administration and its request for oral argument before the Commissioner.

45) Sept. 1, 1977 - FDA Commissioner Donald Kennedy denied the manufacturers' request for AN oral arguments.

46) Sept. 19, 1977 - FDA issues a final decision prohibiting the use of AN to make plastic beverage containers such as Monsanto's Cycle-Safe bottles. The order will take effect 90 days following publication in the Federal Register.

47) Sept. 23, 1977 - FDA decision published in the Federal Register.

48) Oct. 18, 1977 - Monsanto announces decision to charge $18.5 million in Cycle-Safe container-related assets against 1977 earnings ($0.50 per common share).

49) Nov. 17, 1977 - Monsanto files petition for judicial review in the U.S. Court of Appeals for the District of Columbia Circuit challenging the FDA's decision to prohibit the use of AN copolymers in plastic soft drink bottles.

APPENDIX 3

NEWS RELEASES, ANNOUNCEMENTS, BULLETINS

NEWS

Monsanto

FOR RELEASE IMMEDIATELY 1977

MONSANTO COMMERCIAL PRODUCTS CO.
D. R. Bishop (314) 694-2891
M. J. Abrams (314) 694-2740
PUBLIC RELATIONS DEPARTMENT
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166

MONSANTO TEMPORARILY SUSPENDS CYCLE-SAFE OPERATIONS

The following statement was released to the press today.

ST. LOUIS, Feb. 18 -- Monsanto Company announced today that due to uncertainties created by a recent FDA statement on plastic bottles, it will temporarily suspend production at all three of its Cycle-Safe bottle fabrication plants. The plants, located at South Windsor, Conn., Havre de Grace, Md., and Park Forest South, Ill., will be shut down at the close of business today. A Lopac resin production unit at Springfield, Mass., will be similarly affected.

In making this announcement, Executive Vice President E. S. Bauer said this regrettable but necessary action will result in nearly 600 workers being laid off until further notice. Mr. Bauer said the shutdown has been brought about by the Food and Drug Administration's recently announced intentions to stay the regulation regarding the use of the company's Cycle-Safe container.

"Because of this threat," he said, "our customers have elected to temporarily cancel orders pending clarification from FDA."

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--2 MONSANTO TEMPORARILY SUSPENDS CYCLE-SAFE OPERATIONS xxx FDA.

Mr. Bauer said that Monsanto representatives have met twice this week with FDA officials to ensure that FDA has all available data about the container. FDA has taken the Monsanto information under advisement and has indicated that it will give it careful consideration prior to rendering a decision.

He added that Monsanto shares FDA's desire to strive for even higher standards of safety in food containers and pointed out that Monsanto is working towards that goal in its own research programs.

"We are hopeful that FDA will act promptly to establish an equitable, realistic and measurable standard for our containers," he said. "Monsanto remains confident that Cycle-Safe bottles are completely safe and pose no hazards to consumers."

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NEWS

Monsanto

FOR RELEASE IMMEDIATELY

Dan Bishop (314) 694-2891
James Abrams (314) 694-2740
PUBLIC RELATIONS DEPARTMENT
Monsanto Company
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166

ST. LOUIS, March 7 -- Monsanto Company said today it has filed suit to restrain the U.S. Food and Drug Administration from suspending the use of the plastic acrylonitrile in soft drink bottles. The FDA announced earlier today that such a suspension would go into effect Friday.

Monsanto Company uses acrylonitrile in the manufacture of its Cycle-Safe carbonated beverage bottles which are being used in 11 states.

Monsanto Executive Vice President E. S. Bauer said the FDA action is "regrettable and unwarranted for a number of reasons, and we have asked the courts to give us an opportunity to spell out these reasons."

Mr. Bauer said Monsanto filed a petition for review and a motion to stay, in the U.S. Court of Appeals for the District of Columbia. The petition alleges that:

-- The FDA action does not provide Monsanto a hearing and fails to follow administrative and constitutional safeguards as provided by its own regulations.

-- Distribution and sale of Monsanto's Cycle-Safe containers do not present any hazard to the public health.

-- It has not been established that there is any migration of acrylonitrile into the beverage packaged in Cycle-Safe bottles under intended conditions of use.

MAR 8

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"If we had any question about the safety of these bottles, we would have voluntarily stopped making and selling them," Mr. Bauer said. "We remain ready to assist the FDA in further testing -- but based on current evidence, we do not think use of the bottles should be suspended."

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3/7/77

NEWS

Monsanto

FOR RELEASE IMMEDIATELY

MONSANTO COMMERCIAL PRODUCTS CO.
Dan R. Bishop - (314) 694-2891
M. James Abrams - (314) 694-2740

PUBLIC RELATIONS DEPARTMENT
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166

COURT GRANTS MONSANTO
INTERIM STAY OF FDA ORDER
SUSPENDING PLASTIC BOTTLES

ST. LOUIS, March 11 -- The U.S. Court of Appeals for the District of Columbia Circuit today granted Monsanto Company an interim stay of the U.S. Food and Drug Administration's order which would have suspended marketing approval for Monsanto's Cycle-Safe beverage containers made from acrylonitrile.

In announcing this action, Monsanto Executive Vice President E. S. Bauer said the interim stay has been granted pending a hearing scheduled for 2 p.m. (EST) Wednesday, March 16, on the company's motion to stay the FDA suspension order. Mr. Bauer said that the motion for stay was filed in the same court on March 7, 1977.

"Monsanto Company is gratified and encouraged by this decision. It is an important first step in what could be a lengthy legal procedure," Mr. Bauer said.

The Monsanto executive added that the company remains confident that its plastic beverage bottles are completely safe and present no hazard to consumers.

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--2 MONSANTO: COURT GRANTS MONSANTO INTERIM STAY xxx consumers

"We have every intention of demonstrating the safety of these containers to the ultimate satisfaction of the courts, the FDA and the general public," Mr. Bauer said.

Monsanto temporarily suspended all manufacturing-associated operations at its bottle producing plants and a supporting resin manufacturing unit on February 18 following an announcement by FDA of its intentions to withdraw marketing approval. Mr. Bauer added that in view of the sizeable bottle inventory on hand, the company will not resume production until such time as market demands dictate.

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NEWS

Monsanto

FOR RELEASE IMMEDIATELY

MONSANTO COMMERCIAL PRODUCTS CO.
Dan R. Bishop - (314) 694-2891
M. James Abrams - (314) 694-2740
PUBLIC RELATIONS DEPARTMENT
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166

COURT BLOCKS FDA ORDER,
GRANTS MONSANTO A HEARING

(The following was released to the press over the weekend)

ST. LOUIS, March 19 -- An FDA order that would have prohibited the use of plastic soft drink bottles made of acrylonitrile has been set aside by the U.S. Court of Appeals for the District of Columbia Circuit. The Court, acting on a suit brought by Monsanto Company, termed FDA's action "arbitrary and capricious" and ordered prompt public hearings.

The unanimous decision handed down late Friday by a three-judge panel found that FDA "violated the statute and deprived the petitioner of the prompt hearing to which it was statutorily entitled."

The court pointed out that one of the purposes of requiring prompt hearings and expeditious decisions, in cases where objections have been raised, is to ensure substantial investments are not made in expectations of permanent production approval only to have that approval withdrawn at a later date. In a letter to be mailed to its shareowners Monday, Monsanto will report that indefinite suspension of its Cycle-Safe bottle operations could cost the company 40 to 45 cents per share on 1977 earnings. In 1976, the company earned $10.05 a share.

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--2 MONSANTO: COURT BLOCKS FDA ORDER, GRANTS MONSANTO A HEARING xxx share.

The Court called for final findings to be issued by May 18.

FDA on March 11 had, without prior notice, published an order withdrawing marketing approval of acrylonitrile copolymer beverage containers. Monsanto, producer of the containers, contended in its suit that FDA violated its own administrative rules in taking this action.

FDA had cited results of toxicity studies, some still on-going, and migration studies, conducted under conditions of extreme stress, as reasons for withdrawing its earlier approval. Monsanto said all tests on the bottle, conducted under conditions of intended use, show it to be completely safe.

The FDA action, in effect, forced Monsanto to shut down four facilities, idling some 800 workers.

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NEWS

Monsanto

Dan R. Bishop
(314) 694-2891
PUBLIC RELATIONS DEPARTMENT
Monsanto Company
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166

FOR RELEASE IMMEDIATELY

The following was issued to the press Friday afternoon:

INITIAL DECISION ISSUED
IN ACRYLONITRILE CASE

ST. LOUIS, August 5 -- Monsanto Company today reported that it has received a copy of the initial decision reached by the Administrative Law Judge who presided at the FDA hearing, conducted last June, on the use of acrylonitrile copolymers in the fabrication of the company's Cycle-Safe beverage containers.

In this decision, handed down late yesterday in Washington, D.C., the Judge concluded that acrylonitrile copolymers are food additives (that they migrate from the containers to become a component of the food); that they have not been shown to be safe, and that the regulations permitting their use in beverage containers should be stayed (withdrawn) until further notice.

It is Monsanto's understanding that these findings will be forwarded to the Commissioner of the Food and Drug Administration who is under a U.S. Court of Appeals order to issue a final decision in this matter by September 19, 1977. In the interim, all parties to the hearing will be afforded the opportunity to file exceptions to the Judge's decision.

Monsanto's Executive Vice President E. S. Bauer said that the company was obviously disappointed with the decision. "We do not believe acrylonitrile is a food additive and further believe our Cycle-Safe beverage containers are safe," Mr. Bauer said. "Further comments prior to seeing the Commissioner's final decision would be inappropriate," he added.

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NEWS

Monsanto

FOR RELEASE IMMEDIATELY

MONSANTO COMMERCIAL PRODUCTS CO.
Dan R. Bishop
(314) 694-2891
PUBLIC RELATIONS DEPARTMENT
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166

FDA ISSUES DECISION AGAINST ACRYLONITRILE

ST. LOUIS, Sept. 20 -- Monsanto Company said today it has learned that the Food and Drug Administration has issued a final decision prohibiting the use of acrylonitrile to make plastic beverage containers such as Monsanto's Cycle-Safe bottles. This order will soon be published in the Federal Register and will take effect 90 days after publication.

This action, which was first initiated by FDA on Feb. 11, 1977, and subsequently set aside by a federal appeals court, follows by one month similar conclusions reached by an administrative law judge who had earlier presided at a court-ordered public hearing on this subject.

Commenting on the decision, Monsanto Executive Vice President E. S. Bauer said the company is extremely disappointed. "We have not yet received the written decision and will obviously want to review it carefully before making any determination regarding the legal basis, if any, for any further action," Mr. Bauer said. "Suffice to say we do not agree with these findings. We believe our Cycle-Safe bottles are safe and that this action is unwarranted," he added.

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ANNOUNCEMENT

Monsanto

The Food and Drug Administration announced over the weekend its intention to propose changes in regulations governing the use of acrylonitrile-containing plastic materials in food and beverage packaging.

The FDA says it plans to suspend approval of the use of acrylonitrile-based plastic containers for soft drinks and reduce allowable levels of acrylonitrile in other types of food packaging.

Initially this action will affect Monsanto's Cycle-Safe bottle which is being marketed by bottlers of Coca-Cola in a number of areas in the northeast and midwest.

Although the Cycle-Safe bottle uses acrylonitrile as an intermediate, repeated tests have demonstrated that there is no detectable migration of acrylonitrile into the bottle's contents under conditions of normal use. This conclusion is based on detection sensitivity at least as low as 50 parts per billion.

We are confident that Cycle-Safe bottles pose no hazards to consumers.

As the FDA action appears to be wholly unwarranted in view of the evidence, Monsanto representatives will meet with the FDA in Washington today in an attempt to clarify the matter. Further information will be issued as it becomes available.

Public Relations Department

St. Louis
Feb. 14, 1977

Monsanto

BULLETIN

MONSANTO COMMERCIAL PRODUCTS CO.

SUBJECT Cycle-Safe Plants
to Shut Down Temporarily

DATE February 18, 1977
NO. 1

Our Cycle-Safe container program has been seriously disrupted by the Food and Drug Administration's recent threat to suspend regulations regarding its use. Therefore, our customers have elected to temporarily cancel orders pending clarification from FDA.

Accordingly, Monsanto is temporarily suspending production at all three Cycle-Safe fabrication plants and the Lopac resin unit at Springfield effective Friday, Feb. 18, 1977.

Monsanto regrets having to take this action and hopes that FDA will render its decision quickly and reasonably, on the basis of all scientific evidence that has been presented. Background information on the current Cycle-Safe situation is attached.

Monsanto representatives have met twice this week with FDA officials to ensure that FDA has all available information about the container and that it understands that its announced intentions have seriously affected the lives of many hundreds of employes. We share FDA's desire to strive for even higher standards of safety in food containers, and are working toward that goal in our own research program. We are hopeful that FDA will establish an equitable, realistic and measurable standard for our containers.

E. S. Bauer
Executive Vice President
and Managing Director

Monsanto

ANNOUNCEMENT

MONSANTO COMMERCIAL PRODUCTS CO.

The U.S. Court of Appeals for the District of Columbia Circuit, acting on a joint application from all parties to the court-ordered public hearing on acrylonitrile, has granted a 120-day extension of the time frame originally provided to conduct the hearing and make final findings.

On March 18, the Court acting on Monsanto's suit, continued the stay of the FDA suspension order until May 18, 1977 and ordered the agency to hold the hearing and issue final findings by that date. The new deadline for making final findings is Sept. 19, 1977.

The Natural Resources Defense Council (NRDC) has intervened in the hearing and will present data in support of the FDA's suspension order. Borg-Warner Corporation and Vistron Corporation, two other manufacturers of acrylonitrile-containing food packaging containers, have also intervened and will testify in support of acrylonitrile.

The hearing, which has not yet been rescheduled, will take place at the U.S. Food and Drug Administration's headquarters in Rockville, Md. Administrative Law Judge Daniel Davidson will preside.

Public Relations Department

St. Louis
April 14, 1977

ANNOUNCEMENT

Monsanto

MONSANTO COMMERCIAL PRODUCTS CO.

Cycle-Safe Division operational and technical groups are being combined into a Technology Department effective May 1. Paul Dalton, as manager, technology, will manage this new department. Mr. Dalton assumes responsibility for our research and development efforts, engineering and plant operations, in addition to his current responsibility for manufacturing technology and services.

In addition to Mr. Dalton, M. J. Pratl, sales director, will report to me.

M. F. X. Gigliotti, director of Cycle-Safe research and development, has elected to retire effective August 1. Mr. Gigliotti has served the company since 1942. I know his many friends will want to join me in wishing him well.

All technical and professional employes at all Cycle-Safe locations not assigned to continued technical effort have been eligible for Monsanto's deployment program, which provides displaced employes with priority consideration for other Monsanto job opportunities for which they are qualified. A majority of affected employes have already been offered job opportunities throughout Monsanto.

J. V. Waggoner
General Manager
Cycle-Safe Division

St. Louis
April 20, 1977

ANNOUNCEMENT

Monsanto

MONSANTO COMMERCIAL PRODUCTS CO.

I am pleased to announce that as of June 1, over 95 per cent of those Cycle-Safe employes qualified for relocation have been offered job opportunities elsewhere within Monsanto.

This massive relocation effort, precipitated by the FDA action against our Cycle-Safe container, was made possible through the cooperation of virtually every operating unit and major staff department. The results achieved attest to the effectiveness of Monsanto's year-old Manpower Planning and Deployment Program.

The Deployment Program provided for interviews with each of more than 250 eligible employes of the Cycle-Safe Division. The interviews were designed to match, wherever possible, each employe's desires as to job preference and location with the company's overall business opportunities.

The company has also expended considerable effort on behalf of the production and other employes, hired locally, to assist them in locating jobs in their respective local areas.

Personnel professionals from St. Louis worked with location personnel people in providing job search, resume preparation, and counseling assistance to employes not relocating. They also worked closely with state employment agencies and many local firms to identify job openings and obtain interview appointments for employes.

(more)

I'm happy to report that these efforts were instrumental in easing the task of finding new employment for most of these displaced people.

The overall effectiveness of these programs should be a source of pride to all Monsanto employes. It demonstrates our company-wide commitment to employes and to finding continued employment for those individuals whose jobs are affected by circumstances beyond their control.

E. S. Bauer
Executive Vice President

St. Louis
June 2, 1977

APPENDIX 4

SAMPLE PREPAREDNESS STATEMENT

On Monday afternoon, April 11, the Manufacturing Chemists Association (MCA) reported to several federal regulatory agencies that two rats from the two-year chronic feeding study, ingesting 35 ppm acrylonitrile in their drinking water, have been found to have tumors of the central nervous system. Heretofore, no compound-related pathological changes had been observed in rats being fed at this level. The MCA also reported that rats are developing tumors in the course of an inhalation test currently underway. Both studies are being done by Dow Chemical Company for the MCA.

Based on this new MCA information, the following statement, which is not being formally released to the public, will be used to respond to direct questions from the news media.

Monsanto is aware of the new data which the Manufacturing Chemists Association reported to FDA and other federal agencies on April 11. In Monsanto's opinion, this new information merely suggests that the so-called "no-effect" level for acrylonitrile in rats is probably lower than previously indicated. It had been earlier reported that after one year there were no compound-related pathological changes observed in the rats being fed a concentration of 35 parts per million of AN in their drinking water -- the equivalent of feeding levels at 4 miligrams per kilogram of body weight.

This in no way alters our basic position. Monsanto believes that an appropriate "no-effect" or "safe" level for acrylonitrile can and will be established. Monsanto remains confident that its plastic beverage container, fabricated from acrylonitrile/styrene copolymer, is safe and poses no health hazard to consumers.

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Prepared by Dan R. Bishop

APPENDIX 5

POSITION STATEMENT
CYCLE-SAFE BEVERAGE CONTAINERS

POSITION STATEMENT
CYCLE-SAFE® BEVERAGE CONTAINERS

Monsanto Company
St. Louis, Mo. Revised Feb. 1978

Monsanto Company defers to no person or group in its concern for the quality and safety of its products. There is simply too much at stake--morally, ethically and financially--to defend unsafe products. We do feel, however, that the process of safeguarding human health and, indeed, our food supply can and should be a rational one.

Monsanto believes that the U.S. Food and Drug Administration's suspension of the food additive regulation which permits the use of our Cycle-Safe plastic bottles for carbonated beverages is unwarranted.

BACKGROUND

This controversy centers on a chemical substance known as acrylonitrile or "AN," a substance which has been used in a variety of food-packaging applications for more than 30 years. AN is a monomer which has no end uses in and of itself, but which is useful when combined with other substances to form "polymers"--the technical term for "plastics." Monsanto's plastic beverage bottle is made with AN.

Few manufacturers have made a greater commitment to testing the total environmental impact of a new product than did Monsanto during the development of this product. Long before the bottle reached the market, academic, public and consumer interest groups and outside scientific testing agencies evaluated the environmental consequences of this new container--the components from which it was fabricated, its energy requirements, convenience, safety and recyclability.

During this gestation period, we even organized a scientific symposium which brought together those who opposed as well as those who favored the bottle. At that time we said, "It is Monsanto's belief that when industry contemplates any action that could have large-scale effects, it is desirable that the scientific basis for this action should be subjected to scientific peer review and criticism." And so it was. These experts, and others inside and outside government, concluded that Monsanto had acted responsibly in evaluating the potential impacts of the bottle.

In 1973, Monsanto submitted extensive data to the FDA that showed no acrylonitrile could be detected migrating from the bottle to its contents under intended conditions of use, using then-available analytical procedures. These procedures were sensitive down to 50 parts per billion in extracts. Although there were no detectable food additives to regulate, the FDA requested that the bottle be regulated "for administrative purposes." Monsanto agreed to file a food additive petition for use of AN in its soft drink bottle, while duly noting that in its opinion none was legally necessary.

On February 12, 1975, the FDA issued a "final regulation" granting our petition and setting forth the conditions under which AN "May be safely used in soft drink bottles."

At about that time, the Manufacturing Chemists Association (MCA) began new toxicity studies on acrylonitrile to update results from previous work done in the 1940s by scientists from Georgetown University and in the 1950s by the U.S. Public Health Service.

Following FDA approval, in February, 1975, Monsanto and The Coca-Cola Company committed considerable resources and effort to the introduction of this wholly new packaging concept. Consumer tests quickly endorsed the lightweight, shatter-resistant plastic bottle by a significant three to one margin. Commercial roll-out proceeded as Monsanto brought on new capacity to keep pace with consumer demand.

THE ANIMAL FEEDING STUDY

In mid-January of 1977, the MCA presented preliminary findings from one of the industry-sponsored toxicity studies. This study involved the feeding of various levels of AN to rats in their drinking water.

The three feeding levels being used, 35, 100 and 300 parts of AN per every million parts of water, are equal to 4, 10 and 30 milligrams per kilogram of the rats' body weight per day. Interim, 12-month findings from this ongoing study have shown that some of the rats in each of the feeding groups have developed "compound-related pathological changes of a tumorous nature." As an aside, Dow Chemical Company, the firm doing the acrylonitrile study for MCA, subsequently stopped using this particular strain of rat because of its tendency to produce spontaneous tumors.

Even if acrylonitrile were present in the contents of Cycle-Safe bottles at the FDA's newly proposed permissible limit of 50

parts per billion, a child would have to drink more than 3,000 quarts of beverage every day for one year in order to ingest an amount of the substance the equivalent of the lowest level being fed the test animals. But migration studies capable of detecting acrylonitrile at 10 parts per billion (five times lower than the new maximum being proposed by FDA for all other acrylonitrile food packaging uses) have repeatedly failed to detect acrylonitrile in the contents of the bottles, under intended conditions of use.

After reviewing these data the FDA expressed the view that interim results should not be a cause for over-reaction.

But, one month later, on Friday, February 11, citing these same interim results, the Agency unexpectedly announced its intentions to ban our bottles for beverage packaging uses. Both Monsanto and Coca-Cola received this news, incidentally, from a New York Times reporter who called for comments later that day.

FDA MIGRATION TEST

Another basis for this precipitous action was data generated from an FDA migration test. According to the agency, those data "indicate that the containers (our Cycle-Safe bottles) may not currently meet the proposed 50 part per billion limit on acrylonitrile migration." This test involved measuring the amount of AN that migrates from the container to its contents after subjecting it to a temperature of 120°F for six months.

It is Monsanto's position that this test is extreme and irrelevant. It is extreme because it does not comport with realistic conditions of use required by Section 201(s) of the Federal Food, Drug and Cosmetic Act which, in pertinent part, defines a "food additive" as "...any substance the intended use of which results or may reasonably be expected to result, directly or indirectly, in its becoming a component or otherwise affecting the characteristics of any food..." (emphasis added). It should be obvious that when viewed from the prescribed perspective of "intended use" soft drinks are not stored at 120°F for months on end.

It is irrelevant because the test was not (and could not have been) conducted with sealed bottles containing carbonated beverage. The FDA used Cycle-Safe bottles filled with solutions of 3 per cent acetic acid and 8 per cent ethyl alcohol as "food simulating" solvents.

The test was not run on bottles containing Coca-Cola because they tend to "self-destruct" when subjected to high temperature. This self-destruct phenomenon is caused by the CO_2 pressure build-up which occurs as temperature increases. At typical refrigerator temperature ($40^{o}F$) a Cycle-Safe Coca-Cola bottle is under approximately 26 pounds of pressure per square inch (psi). At room temperature ($72^{o}F$) the pressure increases to 58 psi, and at $120^{o}F$ (the FDA test temperature) the pressure is 132 psi. No such pressure build-up occurs with food simulating solvents.

At 132 psi, the bottles cease to be functional containers in just a few days and many would likely rupture within two weeks. At the least, they become enlarged and badly deformed, the liquid level drops noticeably, and the beverage becomes "flat" and loses its familiar flavor. It should be noted that glass and metal containers, when subjected to similar tests, are adversely affected in a like manner.

In other words, there is no way a Cycle-Safe bottle, filled with soft drink, could survive this kind of abuse for even one month, let alone six. Yet FDA cited migration results from this test as a partial basis for its intended action, stating that "the amount of the substance extracted during these tests represents the maximum amount likely to migrate during actual use."

TECHNOLOGICAL ADVANCEMENTS

Much of our nation's environmental and health legislation was written and enacted some two decades ago at a time when our ability to measure the presence of most chemical impurities was limited to the relatively high, "parts per million" range. Impurities present in amounts below this technology-limited range went undetected and were regarded as virtually nil or essentially "zero."

But zero is a function of technology. Twenty years ago it was somewhere in the parts per million--today, it's parts per trillion and counting. One part per trillion is roughly the equivalent of one grain of common table salt in an Olympic-size swimming pool filled with water. Our ability to measure "zero" has increased in this short time frame by a factor of from 10,000 to a million-fold. Consequently, more and more chemical impurities, both artificially synthesized and naturally occurring, are being detected, albeit in infinitesimal amounts, in food additives, natural foods and, indeed, our drinking water. For example, trace amounts of chromates (which can cause cancer in animals) have been found in the contents of glass bottles. Tin and other toxic metals find their way into some soft

drink cans. But certainly no one is suggesting that these beneficial food containers be banned, and properly so.

As our technology has become more and more precise, we have had to set aside the idea of living in a "zero risk" environment. There is no such thing as "completely pure" or "contaminant-free." The more precise our measuring techniques become, the more impurities we will be able to detect.

THE RELEVANCE OF ANIMAL TESTING

The feeding of large doses of chemicals to laboratory rats has recently come under fire and, indeed, ridicule from consumers, legislators and scientists. The proposed saccharin ban is based on results obtained from feeding rats the human equivalent of the saccharin contained in 800 12-ounce bottles of diet soda per day for life. In the acrylonitrile study, the lowest amount equates to several thousand quarts of soft drink every day for one year.

From these experiences, one might ask why are rats so often the animal tested? Why are such large doses administered? And what possible relevance can all of this have to any human exposure?

Rats are popular as test animals because they are small, manageable, relatively cheap and, hard as it may be to believe, have a metabolic system similar to that of man.

Scientists are in general agreement that the cancer-causing potency of chemicals can vary greatly from one substance to another. An extremely low dose of one chemical may induce tumors in rats while the effects of another may require very high doses. The problem is that it is simply not practical to test laboratory rats at low dose rates. This would require feeding hundreds of thousands of rats over their two-year life span. Such large scale experiments, even with rats, would be unwieldy and prohibitively expensive.

Therefore, a test methodology, dictated in part by economic considerations, has evolved whereby large doses are prescribed for a small number of rats (usually 50 to 100 per sex). Through extrapolation, the cancer-inducing effects from greatly reduced exposure is then predicted. In somewhat of an oversimplification, the rationale for feeding large doses goes something like this:

> If exposure to a large dose, say 250 parts per million, can be shown to induce tumors in 5,000 out of 10,000 rats, then, at least statistically, exposure to a dose 5,000 times smaller, say, .05 parts per million, would likely induce one tumor in 10,000 rats.

This simple expedient enables the scientist to work with a small, manageable number of test animals. Through extrapolation of the data, he can estimate the incidence of cancer, if any, that would likely occur in human populations exposed to lower doses and/or weak carcinogens over extended periods of time. But a growing number of scientists feel that such statistical maneuvers can be inappropriate and misleading. They point out that biologic events are not always the same at low dosages as at high - an assumption made by data extrapolators.

Another problem with high doses is that they can totally overwhelm the natural defense and repair mechanisms of test animals. Furthermore, unequivocal reliance on results of this kind fails to recognize the imperfect correlation between humans and rats. That which may have an adverse effect on an animal may have no effect on man, and vice versa.

This notwithstanding, animal testing at high doses is currently the only practical method available to scientists to screen compounds for toxic and carcinogenic effects. It is also the only practical way scientists have of demonstrating the safety of other products. So no responsible person would suggest that we abandon animal testing or ignore adverse data derived from it. The problem comes not from the data, per se, but from our inability to understand and interpret it--and thus evaluate the possible risks to man. Added to this is a rigid regulatory process which preempts the scientist from exercising common sense and considered judgment in his attempts to further investigate and rationalize his findings. The result is that all too often decisions are made which label chemicals as carcinogens without due consideration of the basic principles of modern toxicology--and that, we submit, is wrong!

ZERO TOLERANCE

There are some who theorize that there can be no safe level of human exposure to any substance that induces cancer in laboratory animals. But this "one molecule" or "zero tolerance" theory, as it is often called, is not a universally held belief. Far from it. The vast majority of toxicologists and the weight of scientific evidence together hold that there are acceptable limits for most toxic substances and that vast improvements in measurement techniques merely reinforce their existence.

From all of this, it should be obvious that our ability to generate and measure data has outstripped the laws on which they have been traditionally based. The so-called Delaney Amendment is a case

in point. This legislation, added to the Food, Drug and Cosmetic Act in 1958, prohibits the presence of any chemical substance (in any amount) in any food additive if that substance has been found by "appropriate" tests to induce cancer in man or animal. Saccharin is its most recent casualty. And while Delaney has not been invoked against acrylonitrile, certainly its underlying principles influenced the FDA's decision on our bottles.

Scientists and, indeed, regulators, were never completely comfortable with the rigid language of the Delaney Amendment, even back when "any amount" had a technology-limited, definable and reasonable lower limit (parts per million).

Recent technological advancements have transposed Delaney from "uncomfortable" to "unworkable." In its present form, it has clearly outlived whatever usefulness it originally offered. "Any amount" has become literally that. "Lower limit" has become a bottomless pit and "zero" has become a moving target wherein what is permissible today can be arbitrarily and capriciously banned tomorrow.

A. W. Hubbard, who heads up the Food Science Division in the British Ministry of Agriculture, Fisheries and Food, said recently that analytical techniques are becoming so sensitive it will soon be possible to show the existence of carcinogens and toxins in virtually every foodstuff. At the same time cancer research has provided much new knowledge and understanding about how human systems cope with carcinogens. For example, studies have shown that potentially cancerous changes in the genetic material of cells can be repaired by natural cell mechanisms--if the repair systems are not overloaded.

The human experience confirms the existence of safe or no effect levels--levels which the human body can safely handle and metabolize. Dr. Fredrick J. Stare, MD., Ph.D., Chairman of the Department of Nutrition at Harvard School of Public Health, addressed this subject in his book, Panic in the Pantry.

Dr. Stare points out that estrogen, which under some circumstances is a cancer causing agent, is actually produced by the human body and naturally occurs in eggs, carrots, soybeans, wheat, rice, barley, oats, potatoes, apples, cherries and plums. He also says vitamin A, which is required for normal vision by humans at one part per million, can cause breast cancer, birth defects and other abnormalities when administered to test animals at higher doses. It's interesting to note that the type of experiment used to induce cancer in laboratory animals from vitamin A is almost identical to that which led to the banning of many so-called artificial foods including saccharin.

Vitamin A is but one example of a group of essential trace nutrients required for normal health that at relatively low dose levels can be very toxic, even carcinogenic. Others in the group are selenium, copper, nickel, chromium and Vitamin D.

Aflatoxin, a very potent cancer causing mold, is found in a variety of natural foods including peanuts, rice, corn, whole oats and wheat. The FDA carefully inspects all peanut products intended for human consumption and on occasion rejects or recalls products that look suspicious. Dr. Stare says despite these controls, some trace amounts still appear in our food supply. In one recent government study, 25 percent of all the peanut butter sampled from retail shelves contained traces of aflatoxin, but at quantities too small to cause ill effects. In permitting trace amounts of aflaxtoxin in foods and establishing a tolerance level of twenty parts per billion of daily human intake, the FDA has essentially recognized a no-effect level for this potent carcinogen.

THE THREAT TO INNOVATION

The Cycle-Safe program is highly innovative and was developed through many years of intensive research. It offered the consumer greater convenience, energy savings and other attractive benefits including increased safety.

But where innovation has suffered a double blow in this instance is that Monsanto and The Coca-Cola Company were poised to introduce a refillable plastic beverage container--a bottle that both the FDA and the Environmental Protection Agency have called the most environmentally desirable method of packaging soft drinks they have ever seen. Obviously, Monsanto cannot move ahead with this unique answer to the "throwaway" question now that the fate of our bottle technology has been placed in jeopardy.

For Monsanto, the immediate and most regrettable loss is the nearly 1,000 jobs in the communities where our Cycle-Safe operations are located. The financial loss and write-off is an unfortunate setback but certainly not a matter of corporate life and death. The longer-term business impact is the loss of a significant commercial venture.

However, the hidden loss to the American public, in the final analysis, will be the most serious consequence. For if creative new programs of this kind are to be arbitrarily terminated, the threat of extreme and unforeseeable government restrictions will inevitably slow the rate of innovation which historically has fueled our nation's enviable economic growth and social progress.

To challenge the banning of products on the basis of evidence from animal tests that defy comparison with any human experience, and to challenge arbitrary decisions that fail to consider and weigh the benefits versus the risks of products being scrutinized, is not to challenge our government's right or, indeed, its obligation to protect and safeguard the public health. Monsanto supports responsible regulations promulgated in the public interest. When human health or the environment is clearly endangered by new chemicals and processes, they should be carefully regulated--and, in some cases, prohibited. At the same time, scientific facts, reason and experiences from the real world should be brought to bear on decisions that not only concern human safety but also affect jobs and the commitment of vast resources.

No piece of legislation that is based on or triggered by "state of the art" technology should be etched in stone. Environmental and health laws should be periodically reviewed and revised when necessary to keep pace with shifts and advances in technology. They should allow for flexibility and considered compromise and above all, they should be grounded in common sense.

THE ACRYLONITRILE HEARING

A Federal Appeals Court, terming the proposed FDA action against the Cycle-Safe bottle, "arbitrary and capricious," ordered the Agency to hold a public hearing on the objections to the FDA suspension order. The hearing took place in late June before Administrative Law Judge Daniel Davidson. Transcripts of the proceedings re Acrylonitrile Copolymers Used to Fabricate Beverage Containers are a matter of public record and can be obtained from the Hearing Clerk, U.S. Food and Drug Administration, 5600 Fishers Lane, Rockville, Maryland 20857.

In early August of 1977, the Administrative Law Judge handed down his decision concluding that acrylonitrile copolymers are food additives; that they had not been shown to be safe, and that the regulations permitting their use in beverage containers should be withdrawn. Subsequently, on September 19, 1977, the U.S. Food & Drug Administration issued its final decision prohibiting the use of acrylonitrile to make plastic beverage containers.

Firmly disagreeing with this decision, we filed a petition for judicial review on November 17 in the U.S. Court of Appeals for the District of Columbia Circuit challenging the FDA's decision. We do not believe that acrylonitrile copolymers are food additives; we are confident that our Cycle-Safe bottles are safe, and believe that the FDA's action is unwarranted. We will continue to fight, both in and out of the courts, the FDA's actions.

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For more information contact:

Public Relations Department
Monanto Plastics & Resins Company
800 North Lindbergh Boulevard
St. Louis, Missouri 63166
(314) 694-2915