VISTA

RESPONSIBLE CARE

# DUTIES OF A PRODUCT STEWARD

THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN 48640


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Form No. C-96030 4/89

## SUMMARY

Under the supervison of the product department R&D management and the general guidance of the Health and Environmental Manager, the product steward is responsible for assessing the safety, health, and environmental information on a product, evaluating the product's use, and recommending appropriate steps to protect employee and public health and the environment through manufacture, distribution, storage, use, and disposal. The product steward is responsible for making recommendations on safety, toxicology, industrial hygiene, and environmental studies to the business unit responsible for the product.

## PRIMARY RESPONSIBILITIES:

1. Maintain an effective stewardship program for the product and ensure that people involved with the product receive sufficient information and training to store, use, and dispose of the product without harm to human health or the environment.

2. Evaluate customers use, storage, and disposal practices for the product and initiate any changes that may be required to protect human health and the environment.

3. Participate in product health, environmental, and safety reviews and initiate follow-up action recommended.

4. Generate and review, on a periodic basis, all literature, MSDS's, labels, etc. and initate appropriate changes. Assure that these documents are consistent and reflect Dow's policies and practices.

5. Advise and consult marketing, R&D, business, and manufacturing functions regarding product safety and regulatory requirements.

6. Forecast future product safety, stewardship, and regulatory needs. Plan, develop, and execute strategy and manage activities to meet those needs.

7. Communicate and coordinate any changes in literature, plans, policies, and programs with other geographical areas and other appropriate product departments or functions.

8. Evaluate legislative activities that may impact the future of the product.

9. Represent Dow at industry association activities which plan and manage common technical interests. Initiate such activities when appropriate. Influence such activities to support Dow's objectives.

10. Investigate all product safety, health, and environmental incidents and initiate appropriate corrective action.

These guidelines outline the general duties of the product steward. Modifications should be made to meet the need of the department and the dictates of a product or service. These defined duties of the product steward do not relieve others involved with the product or their stewardship responsibilities.

The success of the Product Stewardship program rests with each and every individual involved with Dow products and services.

## FOLLOW-UP

Most visits at .omers' plants will be very positive and require little follow-up beyond the customary letter and any reports. However, occasionally a hazardous situation may be observed in a customer's plant or a product's misuse may be uncovered that demands immediate attention and follow-up. If there is serious concern on the use of the product or for the health and safety of the customer's employees, or for the environment, the following steps should be taken:

- Inform the customer of your concern and get assurance that the situation will get immediate attention and be corrected by a given date.
- Offer to work with the customer and provide information that may assist him to solve his problems.
- Review the situation with your product management group and with legal counsel.
- Confirm, either by a visit or by a letter from the customer, that the situation has been corrected on the agreed follow-up date.
- If insufficient or no corrective action is taken, stop sales to the customer until adequate corrective action is taken.
- Document all these steps with the assistance of your department business management and legal counsel.

It is the purpose of these guidelines to help keep all visits to customer facilities very business-like and factual. This will result in the most successful product stewardship efforts.

THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN 48674

Form No. C-91520 R/1/91
BULK LIT 233-00050-91

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# *PRODUCT STEWARDSHIP* GUIDELINES FOR VISITS TO CUSTOMER FACILITIES

*P.S. We Care!*

DOW

Dow's product stewardship guidelines state that we will furnish customers and distributors with appropriate information to foster the proper handling, use, and disposal of our products. We will also inform customers and distributors about known use limitations and encourage them to use our products in accordance with our label and literature recommendations and governmental regulations. Depending on the hazard potential of the product and the knowledge of the customer, it may be appropriate to visit the customer's facilities to help them understand the safe and proper handling, use, and disposal of our products.

Customer visits should be considered whenever: a product is being used for the first time at a location; there is a product health or environmental concern; or, there is a need to better understand how a product is used by the customer.

The following guidelines should be followed whenever a product stewardship visit is made to a customer's facility:

## PRIOR TO VISIT

- Ensure that the Dow sales representative arranges or is aware of the visit so that all parties responsible for the safe use and handling of Dow products will be present.
- Establish a clear understanding with the customer as to:
  1. The purpose of the visit.
  2. The content of the visit.
  3. What kind of reports will be made (oral or written) and when they will be made and to whom the report will go.

## BEGINNING OF VISIT

- Meet with the customer's management and review Items 1 through 3 above.
- Give the customer copies of the appropriate Material Safety Data Sheets and other appropriate posters, product brochures, etc.
- Assure that all Dow visitors are properly equipped with appropriate personal protective equipment and follow the customer's safety procedures and practices or those that would be required in equivalent Dow plants, whichever are the more stringent.
- Review the customer's procedures for visitors during plant emergencies.

## DURING THE VISIT

- Ensure that Dow employees are not exposed to hazardous situations and follow Dow safety standards.
- Make certain Dow personnel are accompanied by a person designated by the customer's management.
- Limit all communications during the visit to the assigned customer representative.
- Observe operational setups, arrangements of plant equipment, and other aspects of the physical facilities which would present an unsafe condition considering the Dow product involved. Pay particular attention to posted warnings, placards, tank labels, etc.
- Avoid making comments or recommendations about plant housekeeping, plant safety, layout, equipment, procedures, etc., *which are not directly related to the safe handling of Dow products.* If you observe an operation or condition that you believe may be an imminent hazard, even though it falls outside the scope of your visit or does not involve Dow products, bring it to the customer's attention. However, point out that neither you nor Dow are experts in this area of technology.
- Use validated methods and calibrated equipment if air or water monitoring is required. Health & Environmental Sciences (H&ES); Analytical & Environmental Chemistry (A&EC) should be consulted to select the best approach. All Industrial Hygiene and Environmental monitoring methods are obtained from H&ES – A&EC.
- Make sure all samples are correctly packaged, labeled, documented, and shipped in compliance with sample handling procedures and legal requirements.
- Discuss the preliminary results of the visit with site management before leaving the location. Any concerns should be clarified and defined.

## FOLLOWING THE VISIT

- Write a report within thirty days after the visit.
- The internal Dow distribution of the written report will be determined by the marketing department and the appropriate product stewardship manager.
- Send a separate letter confirming the visit and discussions, along with the report, to the management of the site visited within thirty days. This letter should itemize the literature, etc., presented during the visit with an offer to send additional copies on request. Distribution of the customer letter should be coordinated with the field sales organization.

## REPORT SPECIFICS

- Disclose to the customer all relevant information on the safe use and handling of Dow products used at the facility. Document that the report has been sent to the customer.
- Keep the report factual. Confine recommendations to situations or practices which directly relate to the hazards and the safe handling of Dow products. Recommendations should be made in the context of "if a situation like this occurred inside Dow, we would correct it by . . .". Avoid any judgment or statement that would result in interpretation of a governmental regulation or standard. Instead, attention should be drawn to the regulation or interpretation. Consult your department legal counsel for guidance on these regulatory matters.
- Identify the strengths of the company as well as concerns and actions needed by Dow. If a remedial step is suggested, ensure that the company visited understands that the suggestion is only one of many possibilities. It should also be stated that Dow does not guarantee governmental approval nor that our suggestion will necessarily solve the problem. It is important not to speculate on the potential for a problem to occur.
- Ensure that the report states the conditions observed were on a specific date and that conditions might be different under other situations.
- Recommend to the other company that they retain properly qualified consultants to assist in further and more complex evaluation and implementation of remedial measures where appropriate.
- Include comments about the timing for action and plans to follow, when suggestions are made for action by the site personnel or Dow personnel.
- Respond diligently to comments and queries that may be made regarding the report, especially those that may leave an erroneous impression if unanswered.

# *PRODUCT STEWARDSHIP* GUIDELINES FOR ENVIRONMENTAL, HEALTH, AND SAFETY REVIEWS FOR DOW PRODUCTS

THE DOW CHEMICAL COMPANY
*MIDLAND, MICHIGAN 48674*

P.S. We Dare!

## PREFACE

Dow's Product Stewardship guidelines state that:

> "The Dow Chemical Company has a fundamental concern for all who make, distribute, and use its products and for the environment in which we live. This concern is the basis for our Product Stewardship philosophy by which we assess the health and environmental information on our products and then take appropriate steps to protect employee and public health and the environment."

## PURPOSE

The purpose of this document is to suggest procedures for use by product groups in conducting *reviews of their products or services.* The diversity of our products and services, and their uses and means of distribution, requires that business groups determine which of these procedures are best suited to their products. Although product reviews may include a variety of issues (i.e., efficacy, volume growth, profitability), the procedures suggested in this document are limited to environmental, health, and safety concerns. From a product stewardship perspective, a goal of these reviews should be to determine that we are taking appropriate steps to protect employee and public health and the environment. To the extent that we attain this goal, we will also achieve the benefits of: employee pride in the *health and environmental concern expressed by* their company, improved customer involvement, reduced regulatory restrictions on the products, reduced adverse publicity, and minimized liability.

## INTRODUCTION

The manufacturing, processing, distribution, and use of chemicals is our business. Normally these operations proceed without any undesirable incidents. However, occasionally chemicals do cause some health or environmental problems due to some unknown physical, chemical or biological property; inappropriate use; misuse; inappropriate disposal; carelessness; or transportation and other type accidents.

Chemical reactivity and biological activity of a product can be very complex. There are no substitutes for experience and good judgment in evaluating a product's potential hazard through manufacture, transportation, use, and disposal. Therefore, it is important that product reviews periodically include safety evaluations based on the chemical, physical and biological properties, and intended uses of the product.

## SUGGESTED PROCEDURES

Product review procedures suggested to help ensure the safe use of our products are:

- The business unit in each geographical area is responsible for obtaining sufficient information for the safe manufacture, distribution, use, and disposal of its products.
- Business groups should establish a system to assist the various business units in the evaluation of the environmental, health, and safety aspects of their products.
- All groups of products should undergo a product safety and regulatory review on a periodic basis.
- New products should be reviewed early in their development stage and again when they reach sales status.
- Reviews of existing products should be considered when there is significant new data, a significant new use developed, a substantial increase in sales volume, or a regulatory change.
- *All business, marketing, sales, and technical service* and development personnel in the department should be trained in Dow's Product Stewardship philosophy and periodically informed of their responsibilities.
- Every serious, or potentially serious, environmental, health, and safety incident involving distribution, use, misuse, or disposal of our products should be investigated and reported including causes and corrective actions. Appropriate legal counsel should be involved in all such investigations and reporting.

## PRODUCT REVIEWS

It is the responsibility of the business unit to consider the need for a product review including questions of environment, health, and safety every three years on an existing product family. Other events which may require earlier review include:

- Development of a significant new use.
- Obtaining of significant new data.
- Before significant R&D expense is committed to a potential new product or new use of an existing product.
- Before a new product reaches commercialization.

- Every serious incident or potential incident involving product safety or misuse, with the concurrence and direct involvement of the Legal Department.
- Every significant claim involving product efficacy, with the concurrence and direct involvement of the Legal Department.
- Substantial increases in volume since last review.
- Licensing or joint venture.

While each review will vary with the nature of the product or service, the following general outline of *a review is offered as a starting point. Each business* unit should tailor it to fit its products.

- Properties
  - Chemical (compatibility, autodecomposition, polymerization, etc.)
  - Physical (M.P., B.P., flash point, autoignition temp., explosive limits, solubility, etc.)
  - Biological (potential human health and environmental effects)
  - Impurities
  - Specifications
  - *Properties of material swapped*
- Distribution
  - How will material be shipped?
  - In what quantities?
  - Are mixed shipment restrictions required or appropriate?
  - What equipment restrictions are required or *appropriate?*
  - Are emergency procedures defined?
  - Are truck drivers given special training on the product?
  - *Have unloading procedures been reviewed?*
  - Do materials swapped or tolled meet Dow's distribution requirements?
  - What are the financial resources, experience level, and sophistication of distributors and formulators?
- Storage
  - Is *material* stored in Dow facilities? Leased facilities? Public warehouses?
  - Are mixed storage restrictions required or appropriate?
  - What quantities will be stored?
  - Does the facility have emergency procedures?
  - Is the facility operated in an environmentally acceptable manner?
  - Would fire result in an environmental or human health emergency?
  - What are by-products of the fire?
  - Are local authorities equipped to deal with emergencies?
- Usage
  - For what purpose is material used?
  - What properties make it suitable for that use?
  - Will it replace another material now being used?
  - What precautions are recommended to prevent oral, inhalation, or skin exposure?
  - Are recommendations to minimize fire, explosion, and chemical reactivity hazards appropriate?
  - Will it be used more by one type of person (i.e., age group, occupation, gender, foreign speaking, etc.) than by another?
  - Do other companies offer the same material for similar purpose? For a different use? If so, why the difference?
  - Is material used under conditions that restrict its escape into the environment or its contact with people?
  - Are our customers sophisticated in the handling of chemicals?
  - Do customers have difficulty in keeping exposure levels below recommended levels and government standards?
  - Are *there materials of construction that should* not be used in handling of product?
  - How do customers unload and store the material? Do they use underground storage tanks?
  - *Do customers have training programs for* handling the product? Are the products being sold into markets that have a high liability potential?
  - Are there uses that expose people to the product *without their choice?*
  - Can the use of the product result in indoor air pollution?
  - Does the product remain as residue in food, water, or other products?
  - Are there problems with possible food and drug uses or other registered uses?
  - Have there been significant claims involving product efficacy?
  - In what ways might the material be accidentally or deliberately misused or misapplied?
  - What are the possible consequences of misuse or misapplication to human health or the environment?
  - Can the possibility of misuse on this application be reduced?
  - Is there a history of misuse or misapplication?
  - *What claims are product liability actions likely* to involve and how likely are they? Efficacy? Business interruption? Property damage? Environmental harm? Personal injury?
- Literature (MSDS, Posters, Labels, Brochures, etc.)
  - Is the literature complete, accurate, and up-to-date?
  - Is it easily understood?
  - Is it consistent for all products in product family? For similar products in other departments? In other areas?
  - Are customers receiving Dow safe handling and use literature?
  - Have potential language problems been examined?
  - Are additional literature, video tapes, etc. being considered?
  - Have the literature and label been reviewed for understanding by user?
- Disposal
  - How will material be disposed of after use? What do we recommend?
  - Do we take back unused material?
  - What quantities will be disposed?
  - Will disposal be localized or general?
  - What is the likelihood of accidental spillage during disposal?
  - What environmental concentrations will result from disposal? In groundwater? Surface water? Air?
  - Will disposal result in destruction of the material? What materials result? Have they been evaluated?
  - What programs do we have to discourage undesirable methods of disposal?
  - How are product containers used? Are they destroyed? Reused? Sold for scrap?
- Regulations
  - Is the business knowledgeable of existing federal, state, and local requirements and regulations pertaining to the product?
  - Do Dow and industry practices/standards meet applicable regulations?
  - Are government standards and/or regulations adequate or should Dow adopt stricter standards?
  - Are regulations of all relevant countries being met?
- Follow-up Reviews
  - How often should this product line be reviewed?
  - Should additional functional people be included?
  - Should other departments be represented?

At the end of the review, a brief report should be written with assistance from the Legal Department identifying recommended actions to be taken by specific individuals and by specific dates. The report should be supplied to the business director within two weeks. The business director should document the follow-up action promptly. The importance of this follow-up action and documentation cannot be over emphasized. The business director and the legal representative should evaluate the recommendations to determine the need to communicate to appropriate people in other business units and areas.

## DOCUMENT RETENTION

All documents, overheads, notes, etc., prepared for or during the product review should be retained only by those preparing the report, and only until the report is completed and accepted by the business director. Reports should be retained only by the preparers and the business director, and only for the lesser of five years or until the next review report on the product is completed.

## REVIEW PROCEDURE

Each business unit should establish its own review procedures. How reviews are accomplished may vary widely due to the nature of the business; the health, environmental, and safety properties of the product; the sophistication and number of customers using the product; and the governmental regulatory controls on the product.

The people involved in the review should be selected by the business director. In general, the R&D director, chief product steward, government affairs manager, legal counsel, and marketing and manufacturing representatives should be considered. Others to be considered for their expertise in specific areas are representatives from H&ES, Medical, and Safety Departments.

The review committee does not remove the responsibility for the safe distribution, use, and disposal of a product from line management. It is the committee's *responsibility to assist line management* in carrying out their product stewardship responsibilities.


- Furnish customers and distributors with appropriate information to foster the proper handling, use, and disposal of our products.
- Inform customers and distributors about known use limitations and encourage them to use our products in accordance with the label recommendations.
- Alert Dow personnel immediately to problems of use which may involve human or environmental hazards and offer assistance in modifications of either products or use patterns, as required, to correct these problems.


- Support programs to ensure the safe manufacture, distribution, use, and disposal of all products within the business unit.
- Perform a health, safety, and environmental review on products on a periodic basis.
- Assume the responsibility for providing the purchaser of a technology package or a business with all pertinent health and environmental information known to Dow at the time of purchase.
- Obtain from the seller of a technology package or a business the known pertinent safety, health, and environmental information.

## *YOU ARE THE KEY!*

The Product Stewardship guidelines have been initiated by the company to establish the highest practicable goals for Dow people in approaching the complicated problems of the research, development, manufacture, quality assurance, distribution, and marketing of Dow products and services. The success of Product Stewardship calls for the total involvement and personal dedication of every Dow employee.

**THE DOW CHEMICAL COMPANY**
MIDLAND, MICHIGAN 48674

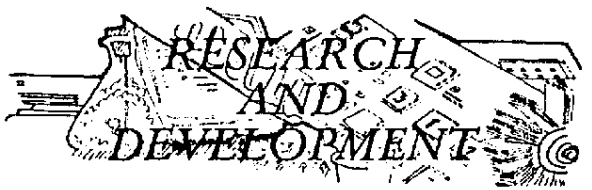
Form No. C-96050 R5/90

# *PRODUCT STEWARDSHIP*

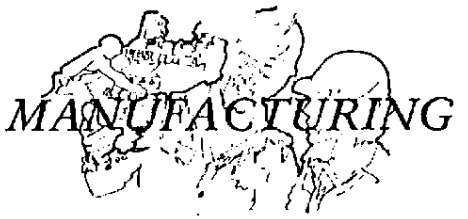
*P.S. We Care!*

DOW

The Dow Chemical Company has a fundamental concern for all who make, distribute, and use its products and for the environment in which we live. This concern is the basis for our Product Stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and the environment. The success of this Product Stewardship program rests with each and every individual involved with Dow products — from the initial concept and research to the manufacture, sale, distribution, use, and disposal of each product.




- Obtain information on our products which enable us to identify and alleviate potential problems before they become human or environmental hazards.
- Conduct needed tests at each stage of product development so that potential hazards and environmental effects can be considered when making critical decisions on the project.
- Develop applications which permit the handling, use, and ultimate disposal of our products without creating an unacceptable level of risk to employees, customers, the public or the environment.
- Provide information to production, distribution, and marketing personnel so that employees, distributors, and customers may be instructed in the proper handling, use, storage, and disposal of our products.
- Reevaluate need for additional health, environmental, and safety information as technology, use patterns, and regulations change.




- Carefully review, before adoption, product specifications or process changes which may alter product properties, utility or quality, including product impuritites.
- Assure that the work environment is considered when plants are designed, operating practices developed, processes changed, and employees trained.
- Inform employees of chemical, biological, and physical stresses in their work environment, methods of protection and control, and the consequences of overexposure.
- Obtain the known pertinent health and environmental information from the supplier of a chemical.
- Furnish contractors on Dow sites with pertinent information concerning the exposure guidelines, proper handling, use, and disposal of Dow products with which they may be involved.
- Furnish outside contractors who make, package, formulate or dispose of materials for us with information for their proper handling, use, and disposal and follow up on the implementation of our recommendations.
- Adhere to pollution control and industrial hygiene standards and guidelines.
- Respond to local health and environmental concerns.
- Ensure that quality products are shipped in secure and properly labeled containers and that transportation equipment is properly maintained and cleaned.


- Assure the quality of products and services we deliver to our customers through a system of specifications and standardized controls.
- Assure that our product documentation is in compliance with all applicable regulations for product safety, labeling, registration, and certification.
- Audit performance of systems and processes to monitor conformance to procedures and policies.
- Provide technical and practical assistance in quality improvement programs and for handling quality problems.


- Determine that appropriate steps are taken to protect persons, property, and environment while our products are being transported and stored.
- Select the proper containers for product distribution in conjunction with Manufacturing and Package Engineering and Design.
- Select carriers, warehouses, and terminals to perform distribution functions consistent with Dow policies and Product Stewardship guidelines.

TO: Distribution

FROM: T. H. Huffman
DATE: June 10, 1992

Interoffice Communication

SUBJECT: MINUTES OF RESPONSIBLE CARE STEERING TEAM MEETING 6/10/92

VISTA

Attendees: T. G. Grumbles, B.E.A. Larsen, T. H. Huffman, P. C. Gowan, V. Weiss-Austin, K. Knapp

Action Items:

1) Kerry Gregg is to follow up on the guidance document sent out to the plants on how to deal with questions regarding Vista's Responsible Care self evaluation. Is the guidance adequate? Has their been a request for this information?

2) Karin Knapp is to review the distribution of "Taking Responsible Care" and consider broadening it to all employees. If we do, what changes, if any, would be required to format or content. Karin will report at the next scheduled meeting.

3) Tom Grumbles will consider the team's comments on the proposed budget items and estimates and formalize the Responsible Care PR budget and submit to PR for their inclusion in the 1993 O & O budget as a line item.

4) Tom Grumbles and Tom Huffman to meet and discuss the feasibility of Goal #4 under the "Implementation Plan Development" document discussed. Our position will be circulated to team members before the next meeting.

5) TGG to finalize Responsible Care guidance document for FY93 upon completion of item 4 above.

Meeting Minutes:

- Karin Knapp discussed the recently distributed guidance on how to handle outside inquiries relating to Vista Responsible Care self evaluations.

- Virgil asked about our activities to address the attack on Chlorine (Chlorine-the Devil's element - PBS, BBC). Bruce reported that the Chlorine Institute is not equipped to deal with this issue but that the CMA has established a Chlorine Coordination Council (CCC) and that Vista would be involved in this new group. It's purpose is to coordinate the activities of the SPI, VI, HSIA, etc. concerning this issue and to ensure the issue is addressed. They are to help form coalitions to provide an international front to balance the

debate. Mike Reynolds is the point man for the Chlorine Institute. A point person has not been named for the CCC.

- Tom Grumbles led a discussion on Karin Knapp's proposed Responsible Care PR budget items. There were seven items (letter attached to meeting agenda) presented. There was general support with the following exceptions:

  > The product Stewardship videotape budget was cut from $10M to $25M.

  > The Promotional items slush fund was axed. Consider funding on a case by case basis as they are defined.

- Tom Grumbles led a discussion on the Responsible Care Implementation Plan for 1993. Goals 1, 2, 3 and 5 were endorsed with Goal #4 resulting in an action item.

- The next meeting was set for June 29, 10-11:30 in room 3004.

T. H. Huffman
/eyg

Distribution:

T. G. Grumbles
R. D. Gamblin
B.E.A. larsen
T. H. Huffman
M. S. Reynolds
P. C. Gowan
V. Weiss-Austin
K. Knapp

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VISTA

**Interoffice Communication**

To: Tom Grumbles

From: R.B. Martin
Date: June 5, 1992

Subject: **RESPONSIBLE CARE -- DISTRIBUTION CODE**

Attached is the status of R&D's work on the distribution code. There are some areas upgraded from "NA" last year due to new definitions of a practice. Please note that some of the NA's from last year were upgraded by Houston but not by R&D.

Robert

Robert Martin

CC: R.T. Jackson, J.P. Kirkpatrick, D.L. McMillen, R.L. Poe, J.R. Roheim, F.M. Slavik, V.W. Weiss

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| Risk Management Practices | NA | EV | DP | IA | PP | RI |
|---|---|---|---|---|---|---|
| 1.1 Regular evaluations of chemical distribution risks which consider the hazards of the material, the likelihood of accidents/incidents and the potential for human and environmental exposure from release of the material over the route of transport.<br><br>Comments on Category NA:<br>CORPORATE FUNCTION | ✓ | | | | | |
| 1.2 Implementation of chemical distribution risk reduction measures that are appropriate to the risk level.<br><br>Comments on Category NA:<br>CORPORATE FUNCTION | ✓ | | | | | |
| 1.3 Internal reporting and investigation of chemical distribution accidents/incidents, and implementation of preventive measures.<br><br>Comments on Category NA:<br>CORPORATE FUNCTION | ✓ | | | | | |
| **Compliance Review and Training**<br><br>2.1 A process for monitoring changes and interpretations of new and existing regulations and industry standards for their applicability to the company's chemical distribution activities, and for implementing those regulations and standards.<br><br>Comments on Category NA:<br>CORPORATE - S&T | ✓ | | | | | |

**Category NA** - No action. If no action taken because the Management Practice is not applicable, please explain.
**Category EV** - Evaluating existing company practices against the Management Practice.
**Category DP** - Developing plan to implement Management Practice.
**Category IA** - Implementing action plan.
**Category PP** - Management Practice in place.
**Category RI** - Reassessing Management Practice implementation.

| | NA | EV | DP | IA | PP | RI |
|---|---|---|---|---|---|---|
| 2.2 Training for all affected company employees in the proper implementation of applicable regulations and company requirements.<br>Comments on Category NA:_____ | | | | AUSTIN | | |
| 2.3 A program for providing guidance and information to carriers, distributors and contractors who perform distribution activities for the company on the company's training and compliance requirements for the activities.<br>Comments on Category NA:_____ | | | | AUSTIN | | |
| 2.4 Regular reviews of company employee, carrier, distributor and contractor compliance with applicable regulations and company requirements.<br>Comments on Category NA:_____ | | | AUSTIN | | | |
| **Carrier Safety** N/A<br>3.1 A process for qualifying carriers of all modes and types (common, contract, private and customer controlled) that transport chemicals to and from company facilities that emphasizes carrier safety fitness and regulatory compliance, and includes regular reviews of their performance and compliance.<br>Comments on Category NA:_____ | | | AUSTIN | | | |

**Category NA** - No action. If no action taken because the Management Practice is not applicable, please explain.
**Category EV** - Evaluating existing company practices against the Management Practice.
**Category DP** - Developing plan to implement Management Practice.
**Category IA** - Implementing action plan.
**Category PP** - Management Practice in place.
**Category RI** - Reassessing Management Practice implementation.

| | NA | EV | DP | IA | PP | RI |
|---|---|---|---|---|---|---|
| 3.2 Feedback to carriers on their safety performance and suggestions for improvement.<br>Comments on Category NA:_____ | | Austin | | | | |
| **Handling and Storage**<br>4.1 Documented procedures for the selection and use of containers that are appropriate for the chemical being shipped, in compliance with testing and certification requirements, and free of leaks and visible defects.<br>Comments on Category NA:_____ | | | | | | Austin |
| 4.2 Documented procedures for loading chemicals at company facilities that will reduce emissions to the environment, protect personnel and provide securement of the lading during transit.<br>Comments on Category NA:_____ | NA | | | | | |
| 4.3 Documented procedures for unloading chemicals at company facilities that will reduce emissions to the environ ment, protect personnel, and provide for safe unloading into proper storage facilities.<br>Comments on Category NA:_____ | N/A | | | | | |

Category NA - No action. If no action taken because the Management Practice is not applicable, please explain.
Category EV - Evaluating existing company practices against the Management Practice.
Category DP - Developing plan to implement Management Practice.
Category IA - Implementing action plan.
Category PP - Management Practice in place.
Category RI - Reassessing Management Practice implementation.

| | NA | EV | DP | IA | PP | RI |
|---|---|---|---|---|---|---|
| 4.4 Defined criteria for the cleaning and return of tank cars, tank trucks, marine vessels, and returnable/refillable bulk and semi-bulk containers, and for the proper disposal of cleaning residues.<br><br>Comments on Category NA:_____ | N/A | | | | | |
| 4.5 A program for providing guidance and information to customers, distributors, and other receivers on proper procedures for unloading and storing the company's chemicals.<br><br>Comments on Category NA:_____ | | | | | AUSTIN | |
| 4.6 A process for selecting distributors and other facilities that store or handle the company's chemicals in transit that emphasizes safety fitness and regulatory compliance, and includes regular reviews of their performance and compliance.<br><br>Comments on Category NA:_____ | ✓ | | | | | |
| 4.7 Feedback to distributors and operators of other facilities that store or handle chemicals in transit on their safety performance and suggestions for improvement.<br><br>Comments on Category NA:_____ | ✓ | | | | | |

**Category NA** - **No action. If no action taken because the Management Practice is not applicable, please explain.**
**Category EV** - **Evaluating existing company practices against the Management Practice.**
**Category DP** - **Developing plan to implement Management Practice.**
**Category IA** - ***Implementing action plan.***
**Category PP** - **Management Practice in place.**
**Category RI** - **Reassessing Management Practice implementation.**

| Emergency Preparedness | NA | EV | DP | IA | PP | RI |
|---|---|---|---|---|---|---|
| 5.1 A process for responding to chemical distribution accidents/incidents involving the company's chemicals.<br>Comments on Category NA:_____ | | | | | AUSTIN | |
| 5.2 Documented procedures for making information about the company's chemicals in distribution available to response agencies.<br>Comments on Category NA:_____ | | | | | AUSTIN | |
| 5.3 A program for making facilities and/or training materials available to emergency response agencies.<br>Comments on Category NA:_____ | | | | AUSTIN | | |
| 5.4 Dialogue with state and local emergency planning organizations on the distribution and hazards of the company's chemicals to improve community preparedness to respond to chemical distribution emergencies.<br>Comments on Category NA:_____ | NA | | | | | |
| 5.5 Dialogue with the public on their concerns about chemical distribution safety, actions taken by the industry and the company to improve the safety of chemical distribution, and the effectiveness of emergency preparedness and emergency response assistance.<br>Comments on Category NA:_____ | N/A | | | | | |

Category NA - No action. If no action taken because the Management Practice is not applicable, please explain.
Category EV - Evaluating existing company practices against the Management Practice.
Category DP - Developing plan to implement Management Practice.
Category IA - Implementing action plan.
Category PP - Management Practice in place.
Category RI - Reassessing Management Practice implementation.

TO: Distribution

FROM: T. G. Grumbles
DATE: June 4, 1992

Interoffice Communication

SUBJ: PRODUCT STEWARDSHIP CODE

VISTA

Attached for your review is a copy of the Product Stewardship Code. This will be discussed at the Steering Team Meeting on June 10.

T. G. Grumbles

dlj

Attachment

Distribution: RESPONSIBLE CARE® STEERING TEAM

Tom Grumbles, R. D. Gamblin, Bruce Larsen, T. H. Huffman, M. S. Reynolds, P. C. Gowan, Virgil Weiss-Austin

CHEMICAL MANUFACTURERS ASSOCIATION

April 29, 1992

TO: Product Stewardship Quarterly Review Group

SUBJECT: Approval of Product Stewardship Code of Management Practices

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On April 13, 1992, the CMA Board approved the Product Stewardship Code of Management Practices. Enclosed, please find a packet of the Product Stewardship materials approved by the Board. These materials include:

- the Product Stewardship Code of Management Practices;
- the Product Stewardship Booklet;
- the Product Stewardship Q&A Document;
- the Product Stewardship Self-evaluation; and
- the Product Stewardship Definitions.

The Resource Guide will be distributed in the official release of the Product Stewardship Code through the Responsible Care® Division.

Two Product Stewardship Open Meetings are being scheduled for later summer or early autumn. More information concerning dates and locations will be sent to you in early June.

If you have any questions, feel free to contact me at (202) 887-1277.

Sincerely yours

Mary Beth Preston

Mary Beth Preston
Staff Assistant
Health Programs

2501 M Street N.W. Washington, DC 20037 202-887-1100 Panafax 202-887-1237 Telex 89617 (CMA WSH)

# Product Stewardship Code of Management Practices

## PURPOSE AND SCOPE

The purpose of the Product Stewardship Code of Management Practices is to make health, safety and environmental protection an integral part of designing, manufacturing, marketing, distributing, using, recycling and disposing of our products. The code provides guidance as well as a means to measure continuous improvement in the practice of product stewardship.

The scope of the code covers all stages of a product's life. Successful implementation is a shared responsibility. Everyone involved with the product has responsibilities to address society's interest in a healthy environment and in products that can be used safely. All employers are responsible for providing a safe workplace, and all who use and handle products must follow safe and environmentally sound practices.

The code recognizes that each company must exercise independent judgment and discretion to successfully apply the code to its products, customers and business.

## RELATIONSHIP TO RESPONSIBLE CARE® AND GUIDING PRINCIPLES

Implementation of the code promotes achievement of several of the Responsible Care® Guiding Principles:

- to make health, safety and environmental considerations a priority in our planning for all existing and new products and processes;
- to develop and produce chemicals that can be manufactured, transported, used and disposed of safely;
- to extend knowledge by conducting or supporting research on the health, safety and environmental effects of our products, processes and waste materials;
- to counsel customers on the safe use, transportation and disposal of chemical products;
- to report promptly to officials, employees, customers and the public, information on chemical-related health or environmental hazards and to recommend protective measures;
- to promote the principles and practices of Responsible Care® by sharing experiences and offering assistance to others who produce, handle, use, transport or dispose of chemicals.

## MANAGEMENT PRACTICES

Each company shall have an ongoing product stewardship process that:

### Management Leadership and Commitment

1. LEADERSHIP: Demonstrates senior management leadership through written policy, active participation and communication.

2. ACCOUNTABILITY and PERFORMANCE MEASUREMENT: Establishes goals and responsibilities for implementing product stewardship throughout the organization. Measures performance against these goals.

3. RESOURCES: Commits resources necessary to implement and maintain product stewardship practices.

### Information and Characterization

4. HEALTH, SAFETY and ENVIRONMENTAL INFORMATION: Establishes and maintains information on health, safety and environmental hazards and reasonably foreseeable exposures from new and existing products.

5. PRODUCT RISK CHARACTERIZATION: Characterizes new and existing products with respect to their risk using information about health, safety and environmental hazards and reasonably foreseeable exposures. Establishes a system that initiates re-evaluation.

### Risk Management

6. RISK-MANAGEMENT SYSTEM: Establishes a system to identify, document and implement health, safety and environmental risk-management actions appropriate to the product risk.

7. PRODUCT and PROCESS DESIGN and IMPROVEMENT: Establishes and maintains a system that makes health, safety and environmental impacts--including the use of energy and natural resources--key considerations in designing, developing and improving products and processes.

8. EMPLOYEE EDUCATION and PRODUCT USE FEEDBACK: Educates and trains employees, based on job function, on the proper handling, recycling, use and disposal of products and known product uses. Implements a system that encourages employees to feed back information on new uses, identified misuses or adverse effects for use in product risk characterization.

9. CONTRACT MANUFACTURERS: Selects contract manufacturers who employ appropriate practices for health, safety and environmental protection for the operations under contract, or works with contract manufacturers to help them implement such practices. Provides information and guidance appropriate to the product and process risk to foster proper handling, use, recycling and disposal. Periodically reviews performance of contract manufacturers.

10. SUPPLIERS: Requires suppliers to provide appropriate health, safety and environmental information and guidance on their products. Factors adherence to sound health, safety and environmental principles, such as those contained in Responsible Care®, into procurement decisions.

11. DISTRIBUTORS: Provides health, safety and environmental information to distributors. Commensurate with product risk, selects, works with and periodically reviews distributors to foster proper use, handling, recycling, disposal and transmittal of appropriate information to downstream users. When a company identifies improper practices involving a product, it will work with the distributor to improve those practices. If, in the company's independent judgment, improvement is not evident, then the company should take further measures--up to and including termination of the business relationship. This Management Practice should be implemented in conjunction with the Distribution Code of Management Practices.

12. CUSTOMERS AND OTHER DIRECT PRODUCT RECEIVERS: Provides health, safety and environmental information to direct product receivers. Commensurate with product risk, works with them to foster proper use, handling, recycling, disposal and transmittal of appropriate information to downstream users. When a company identifies improper practices involving a product, it will work with the product receiver to improve those practices. If, in the company's independent judgment, improvement is not evident, then the company should take further measures--up to and including termination of product sale.

## RELATIONSHIP TO OTHER CODES OF MANAGEMENT PRACTICES

This code complements, and should be implemented in conjunction with, current and future Codes of Management Practices.

CMA
BD-4/14/92

# PRODUCT STEWARDSHIP CODE OF MANAGEMENT PRACTICES

## Management Practice 1

**LEADERSHIP: Demonstrates senior management leadership through written policy, active participation and communication.**

*The objective of this management practice is to set the driving force for the Product Stewardship Code. To this end, senior management must first adopt a policy that reflects the company's vision of product stewardship. This policy should state clearly how senior management expects product stewardship to be managed within the company.*

*To be effective, the policy should emphasize that product stewardship, like quality and safety, must be woven into the company's culture. It also should be clear that the commitment is an ongoing, long-term part of the company's operations and business.*

*Finally, if the new policy represents a change in the way of doing business, it should be clear that a change in behavior is expected. In some companies, a separate written product stewardship policy may be effective. In others, a broader health, safety and environmental (H,S&E) policy that incorporates the principles of product stewardship may be more appropriate.*

*However, a policy alone is not enough. The words of a policy must be reinforced by actions and behaviors that continuously reaffirm the goals senior management has set. Senior management is responsible for conveying throughout the organization its involvement with, and support of, product stewardship--especially to the next level of management and encouraging it to do the same. (Management Practices 2 and 3 focus on some of the visible signals -- for example, goals, performance measurement and resource allocation).*

## Management Practice 2

**ACCOUNTABILITY and PERFORMANCE MEASUREMENT: Establishes goals and responsibilities for implementing product stewardship throughout the organization. Measures performance against these goals.**

*One of the key ways senior management can convey the importance of product stewardship is by establishing it as a priority in business planning and individual performance planning. The objective is to develop a process that will result in continuous improvement through*

*goals that are well-defined, achievable and measurable. Similarly, individual responsibilities should be clear and consistent.*

## Management Practice 3

RESOURCES: **Commits resources necessary to implement and maintain product stewardship practices.**

*The commitment of resources, both human and financial, is a critical signal that management can send to show its commitment to product stewardship practices and is a vital component for some implementation activities. Undoubtedly, resources will vary from company to company. However, in all cases, the commitment of resources should be consistent with product stewardship implementation plans and sufficient to support continuous improvement.*

## Management Practice 4

HEALTH, SAFETY and ENVIRONMENTAL INFORMATION: **Establishes and maintains information on health, safety and environmental hazards and reasonably foreseeable exposures from new and existing products.**

*Just as Management Practice 1 is the driving force for the Product Stewardship Code, Management Practice 4 is the foundation. The objective of Management Practice 4 is to establish a knowledge base of human and environmental hazards and reasonably foreseeable exposures and, once established, to maintain it. Under this practice, companies gather information to support the system that characterizes a product's risk (Management Practice 5) and, ultimately, the system that develops the methods to manage that risk (Management Practice 6).*

*Initially, some companies may establish their knowledge base by developing information; others may do so by collecting and compiling available information. However, all companies should have a process to continuously gather relevant product information and to review existing information to determine if it is accurate, current and complete.*

*Sources of information may include published, unpublished and/or internally generated scientific reports on health, safety and environmental effects and exposures. Generally, the types of information could cover animal or human toxicity, ecotoxicity and chemical and physical properties that affect exposure or the environmental impact. In many cases, exposure information is not directly available but may be estimated with product use information.*

*Information on a product's handling, use and reasonably foreseeable exposures in research, development, manufacturing, transport, storage, packaging and disposal may be obtained by a number of means. These could include surveys of customers and other product*

*receivers, technical reviews or visits to customers, and/or observations reported by sales and marketing personnel.*

## Management Practice 5

**PRODUCT RISK CHARACTERIZATION: Characterizes new and existing products with respect to their risk using information about health, safety and environmental hazards and reasonably foreseeable exposures. Establishes a system that initiates re-evaluation.**

*This practice has two objectives. The first is to use the information gathered in Management Practice 4 to develop a thorough understanding of the product's risk. This characterization may be either quantitative or qualitative. The second objective is to establish a system that triggers re-evaluation, whether upon receipt of new information or upon periodic, scheduled review.*

*A product may be characterized as a single entity or it may be characterized in a group of products based on similar uses, compositions or physical properties. Product risks may vary with different uses or exposures.*

*The time frame for re-evaluation may vary from product to product. Triggers for such re-evaluations might include significant new hazard or exposure data, significant new use or misuse information as it becomes known or a substantial increase in sales volume, suggesting new uses or markets.*

## Management Practice 6

**RISK-MANAGEMENT SYSTEM: Establishes a system to identify, document and implement health, safety and environmental risk-management actions appropriate to the product risk.**

*The objective of Management Practice 6 is to establish a system for identifying and implementing risk-management actions. Risks involved in the production and use of chemicals can be managed and controlled if each company takes the basic information on a product's risk (Management Practice 4), characterizes it (Management Practice 5) and then implements a series of risk management actions (Management Practice 7 through 12). These risk management actions are a result of a conscious weighing of technical, ethical, societal and business issues surrounding a product. Actions taken as a result can range from no action, to providing MSDSs and labels, to product reformulation or repackaging, to removal of the product from a market.*

*The management practices that follow, Management Practices 7 through 12, are specific areas of company operations that warrant discussion and special emphasis.*

## Management Practice 7

**PRODUCT and PROCESS DESIGN and IMPROVEMENT: Establishes and maintains a system that makes health, safety and environmental impacts--including the use of energy and natural resources--key considerations in designing, developing and improving products and processes.**

*Designing products and processes (or redesigning existing products and processes) with a system to identify health, safety and environmental impacts throughout the product lifecycle is one of the most effective ways of managing the product risks identified in Management Practice #5. One objective of this Practice is attainment of the preferred environmental hierarchy: source reduction; reuse; recycling; and disposal. Source reduction includes equipment or technology modifications, process or procedure changes, product reformulation or design, substitution of raw materials, and improvements in housekeeping, maintenance, training or inventory control.*

*This Practice also addresses the need for proper energy and natural resource utilization--important considerations for reducing potential adverse environmental impacts and achieving sustainable development.*

*The health, safety and environmental attributes of the product throughout its entire life cycle should be addressed at the beginning, during the concept and design (or redesign) phases. Re-evaluation should occur on a periodic basis or whenever changes to the product or process are contemplated.*

*Insights and contributions from employees in all functional areas that may affect health, safety and the environment should be incorporated into the review. These functional areas include research and development, manufacturing, distribution, sales and marketing and regulatory personnel.*

## Management Practice 8

**EMPLOYEE EDUCATION and PRODUCT USE FEEDBACK: Educates and trains employees, based on job function, on the proper handling, recycling, use and disposal of products and known product uses. Implements a system that encourages employees to feed back information on new uses, identified misuses or adverse effects for use in product risk characterization.**

*This practice has two parts. The first is to ensure that all employees who are involved with products have the training and education necessary to understand product (and packaging) hazards, proper use, handling, reuse, recycling and disposal procedures. The*

*second is to help ensure that any new information that may alter the way risk is being managed is factored into the risk characterization process on a timely basis (Management Practice 5).*

*The training and education of employees should be tailored to specific job functions. For example, marketing and sales personnel are in a unique position to know how customers are using products and must be aware of product hazards, reasonably foreseeable exposures, appropriate uses and proper handling procedures. They should be able to identify product deviations and to recognize adverse health or environmental effects. These personnel should be alert to the customer's and the public's comments or perceptions.*

*It is essential that there be timely feedback of this safety, health or environmental information or concerns into the risk characterization process (Management Practices 4 and 5). This feedback may change the risk management actions (Management Practice 6).*

## Management Practice 9

**CONTRACT MANUFACTURERS: Selects contract manufacturers who employ appropriate practices for health, safety and environmental protection for the operations under contract, or works with contract manufacturers to help them implement such practices. Provides information and guidance appropriate to the product and process risk to foster proper handling, use, recycling and disposal. Periodically reviews performance of contract manufacturers.**

*The objective of this Management Practice is to encourage the use of contract manufacturers who have sound health, safety and environmental practices for the specific operations under contract.*

*Companies are responsible for assessing the capabilities of each contract manufacturer and for supplementing their expertise with enough guidance to foster proper handling (including storage), use and disposal. If contract manufacturers are unwilling to implement appropriate controls, a company may decide to cease doing business with them. While companies are committed to working with contract manufacturers to help them improve performance, improvement to meet appropriate H,S&E standards should occur within a reasonable time frame.*

*The level of a company product's involvement and review will vary according to the degree of product risk. "Working with" may include providing detailed H,S and E product information, providing technical assistance on product handling techniques and waste minimization and management, and possibly visiting the contract manufacturer's facilities. These actions will vary according to the individual contract manufacturer and operation. Because of the greater degree of company control, much closer interaction will be appropriate with contract manufacturers than compared to distributors and customers.*

*All contract manufacturers should be subject to periodic performance reviews.*

*Along with Management Practices 10 and 11, this management practice constitutes an important outreach component of the product stewardship code. The long-term result of implementing this practice, like the other outreach management practices, should be better health, safety and environmental performance -- not just for CMA companies but for the entire chemical industry.*

## Management Practice 10

**SUPPLIERS: Requires suppliers to provide appropriate health, safety and environmental information and guidance on their products. Factors adherence to sound health, safety and environmental principles, such as those contained in Responsible Care®, into procurement decisions.**

*The objective of this management practice is to extend product stewardship practices to suppliers. Where appropriate, health, safety and environmental factors should be an integral part of the procurement process, including product exchange. For some companies, this management practice may mean close cooperation within the purchasing, manufacturing, health and loss prevention functions to determine how the supplier can contribute to a safer environment. Other companies may opt to make these health, safety and environmental considerations part of their supplier quality reviews or to factor them into contractual decisions. Suppliers should describe health, safety and environmental programs and goals.*

*Along with Management Practices 9 and 11, this management practice constitutes an important outreach component of the product stewardship code. The long-term result of implementing this practice, like the other outreach management practices, should be better health, safety and environmental performance -- not just for CMA companies but for the entire chemical industry.*

*As with customers, reviews of suppliers will be commensurate with product risk. However, it is appropriate to expect companies to make a continuous effort to extend the principles of product stewardship beyond the CMA membership and Responsible Care® partners.*

## Management Practice 11

**DISTRIBUTORS: Provides health, safety and environmental information to distributors. Commensurate with product risk, selects, works with and periodically reviews distributors to foster proper use, handling, recycling, disposal, and transmittal of appropriate information to downstream users. When a company identifies improper practices**

involving a product, it will work with the distributor to improve those practices. If, in the company's independent judgment, improvement is not evident, then the company should take further measures--up to and including termination of the business relationship. This Management Practice should be implemented in conjunction with the Distribution Code of Management Practices.

*The objective of this management practice is to encourage distributors to establish and implement proper health, safety and environmental practices involving our products. It should be implemented in conjunction with Management Practice 4.6 of the* ***Distribution Code****, which focuses on the inbound/outbound and storage aspects of distributor operations. The emphasis in the* ***Product Stewardship Code*** *is on working with distributors to help them achieve an appropriate level of performance on other aspects of their operations, such as recycling, handling, storage, use, disposal, waste minimization and management and the transmittal of information to downstream users. As with customers and other direct product receivers, a company may decide to terminate the business relationship with those unwilling to implement corrective actions appropriate for limiting risks and otherwise achieving the health, safety and environmental objectives of Product Stewardship.*

*The level of involvement with a distributor will vary according to the product's risk. That risk should also trigger the frequency of the periodic performance reviews mandated in the* ***Distribution Code****. These reviews may be used as a forum to share accumulated knowledge that will elevate health, safety and environmental performance -- and product stewardship practices.*

*It is recognized that distributors perform a broad range of functions, from repackaging the original product to reformulating it into a new product with new health, safety and environmental characteristics. The "transmittal of appropriate" information acknowledges that while we expect distributors to pass along H,S&E information, product changes made by the distributor may mean that the information originally supplied with the product no longer applies. In these cases, the distributor needs to issue information that reflects the current H,S&E information.*

*As with customers and suppliers, reviews of distributors will be commensurate with product risk. It is appropriate to expect companies to make a continuous effort to extend the principles of product stewardship beyond the CMA membership and Responsible Care® partners.*

## Management Practice 12

CUSTOMERS AND OTHER DIRECT PRODUCT RECEIVERS: Provides health, safety and environmental information to direct product

receivers. Commensurate with product risk, works with them to foster proper use, handling, recycling, disposal, and transmittal of appropriate information to downstream users. When a company identifies improper practices involving a product, it will work with the product receiver to improve those practices. If, in the company's independent judgment, improvement is not evident, then the company should take further measures--up to and including termination of product sale. .

*The objective of this management practice is to encourage customers to establish proper health, safety and environmental practices involving our products. While the emphasis is on providing information to customers, other assistance may be appropriate where the product risk requires it. This management practice recognizes that if those efforts are unsuccessful, a company has a range of actions that it can take. Possible actions include, in the exercise of the company's independent judgement, not selling a given product to the customer.*

*The level of involvement will vary according to the product's risk. Activities could include reinforcement of previously provided health, safety and environmental information, additional training, etc. At a minimum, both parties should share any accumulated knowledge that would enhance health, safety and environmental protection.*

*The "transmittal of appropriate information" acknowledges that while we want customers to pass along H,S&E information, product changes made by the customer may mean that the information originally supplied with the product no longer applies. In these cases, the customer needs to issue information that reflects the current H,S&E information.*

*Along with Management Practices 9, 10 and 11, this management practice constitutes an important outreach component of the Product Stewardship Code. The long-term result of implementing this practice, like the other outreach management practices, should result in improved health, safety and environmental performance -- not just for CMA member companies but the entire chemical industry.*

*As with distributors and suppliers, reviews of customers will be commensurate with product risk. However, it is appropriate to expect companies to extend the principles of product stewardship beyond the CMA membership and Responsible Care® partners.*

CMA
BD-4/14/92

# Product Stewardship Question and Answer Document

*The following questions and answers are intended to provide brief explanations of the Product Stewardship Code of Management Practices.*

## (1) How is product stewardship different from "traditional" health, safety and environmental practices?

Today's concept of Product Stewardship is a natural outgrowth of various programs that have developed in the U.S. chemical industry. These practices and programs go by many different names, including product safety, product integrity and product responsibility.

Many of the more "traditional" health, safety and environmental (H,S&E) programs or practices tended to focus on regulatory compliance issues. Product stewardship strengthens and broadens the focus to include such concepts as customer interaction and dialogue on how to foster proper use, handling, recycling and disposal of products. It is a comprehensive integration of health, safety and environmental considerations into each aspect of a company's operations, from design and initial manufacture to distribution, sale and ultimate disposal. This code will affect nearly every segment of a company's operations.

## (2) How do we know when we've achieved an adequate level of implementation or, in other words, how much improvement is needed?

These issues are similar. Both imply a clearly defined end point in the implementation process...which is not the case.

The Product Stewardship Code, along with the other codes of Responsible Care®, are based on a continuous improvement process. Each company will need to establish a base-line -- where you are today -- and then determine what steps are necessary to move towards "code-in-place." Once you are at "code-in-place," the management practice should be reviewed annually to determine if there are any additional activities that might contribute to continuous improvement.

There will be a number of examples of activities in the Product Stewardship Resource Guide.

## (3) Why are distributors discussed in the Distribution Code and the Product Stewardship Code?

The Distribution Code was developed prior to the Product Stewardship Code and focuses on the "transportation, storage and handling" of products as they move from manufacturer to end user. The Product Stewardship Code goes beyond these activities. It focuses on additional aspects of the distributors' operation, such as transmission of H,S&E information to downstream users, recycling and disposal practices and how distributors interface with customers. Together, the two codes provide a comprehensive structure for the manufacturer and distributor relationship.

## (4) Does the Product Stewardship Code apply to international operations? How does it apply to suppliers from other countries?

The CMA Product Stewardship Code "officially" applies only to the member company operations and locations in the United States. Because their materials are used domestically, foreign suppliers should be treated the same as U.S. suppliers.

However, there are two practical factors that should be kept in mind. First, major efforts are underway to implement either the Responsible Care® initiative or similar programs worldwide. As of January 1992, close to two dozen countries have either adopted, or are proposing to adopt the principles which are the foundation for Responsible Care®. Secondly, many multi-national companies are implementing the Responsible Care® initiative throughout their worldwide operations on a voluntary basis.

## (5) What type of information should be provided to customers, distributors and other third parties? How can this information be provided?

Information that would help protect health, safety, and the environment should be provided. In addition to MSDSs and label information, a company may choose to provide additional information through bulletins, videos, instructional workshops or seminars, training programs or site visits. The appropriate actions and communication media will vary with each company and with the product risk.

## (6) How does the Product Stewardship Code relate to the other Responsible Care® codes?

The Product Stewardship Code is the most comprehensive of all the codes. As with the Distribution Code, Product Stewardship addresses third parties. A major portion of the code is focused on a company's interactions with suppliers, distributors, contract manufacturers and customers. Another portion addresses the

gathering and characterization of H,S&E information. These practices overlap with both the Employee Health & Safety and the Distribution Code. Another practice, Contract Manufacturers, overlaps the Pollution Prevention Code.

## (7) Will I be required to carry out a customer audit?

Audits of customers are not required. The need for audits or other appropriate risk management actions will be determined by the company.

## (8) What is meant by the term "work with?"

Although responsibility for proper manufacture, handling, use, recycling and disposal rests with each party in the chain, the concept of product stewardship includes a willingness to assist where requested or where a need is apparent.

"Working with" may include providing detailed health, safety and environmental product information, or technical assistance on product handling techniques or visiting facilities.

The risk associated with a product will help determine the appropriate response in each individual case. In addition, certain parties may require more assistance than others. The response remains a judgment call in each individual case by the company involved.

## (9) What is the appropriate unit of measurement for evaluation (i.e., by business unit, product line, plant site)?

The Product Stewardship Code presents a challenge because the code focuses on activities involving a company's products rather than a company's facilities. The traditional measurement units used by other codes may not apply. In addition, no uniform measurement is recommended for every company in conducting self-evaluations against the management practices. Each company will determine what works best for its particular circumstances. Some companies may choose to evaluate each individual product, while others may choose product lines or business units.

The most important point is that each company must establish some unit of measurement and remain consistent year-to-year. Since the self-evaluation process aims to measure each member company's annual progress against the code practices, and since results are not absolute, the scores are relevant only to the company's progress measured in subsequent years. The focus is on continuous improvement, regardless of the unit of measurement.

## (10) How far down the chain of commerce does the code apply? Does it apply through the first point-of-sale or beyond?

The Product Stewardship Code covers all stages of a product's life. It is intended to cover as much of the chain of commerce as necessary to help prevent misuse, mishandling or other activities that might result in harm to people or the environment from our products. The word "help" is key because it acknowledges that to be successful, product stewardship must be a cooperative effort.

The main focus of the management practices is on distributors, customers and other direct product receivers, or those with whom there is a close business relationship. Responsibility lies with the next party in the chain to practice product stewardship and encourage its downstream users to do the same.

CMA
BD-4/14/92

# PRODUCT STEWARDSHIP CODE OF MANAGEMENT PRACTICES

## DRAFT MEMBER SELF-EVALUATION FORM

Member Company

Name: _____

Responsible Care® Coordinator

Name: _____

Address: _____

_____

_____

_____

Telephone: (  ) _____

# PRODUCT STEWARDSHIP
# CODE OF MANAGEMENT PRACTICES

| Management Practices | Categories | | | | | |
|---|---|---|---|---|---|---|
| | NA | EV | DP | IA | PP | RI |
| 1. LEADERSHIP: Demonstrate senior management leadership through written policy, active participation and communication.<br><br>Comments on Category NA:_____ | | | | | | |
| 2. ACCOUNTABILITY and PERFORMANCE MEASUREMENT: Establish goals and responsibilities for implementing product stewardship throughout the organization. Measures performance against these goals.<br><br>Comments on Category NA:_____ | | | | | | |
| 3. RESOURCES: Commit resources necessary to implement and maintain product stewardship practices.<br><br>Comments on Category NA:_____ | | | | | | |
| 4. HEALTH, SAFETY, and ENVIRONMENTAL INFORMATION: Establishes and maintains information on health, safety and environmental hazards and reasonably foreseeable exposures from new and existing products.<br><br>Comments on Category NA:_____ | | | | | | |

Category NA - No action. If no action taken because the management practice is not applicable, please explain.
Category EV - Evaluating existing company practices against the Management Practice.
Category DP - Developing plan to implement Management Practice.
Category IA - Implementing action plan
Category PP - Management Practice in place.
Category RI - Reassessing Management Practice implementation.

| | Categories | | | | | |
|---|---|---|---|---|---|---|
| | NA | EV | DP | IA | PP | RI |
| 5. PRODUCT RISK CHARACTERIZATION: Characterizes new and existing products with respect to their risk using information about health, safety and environmental hazards and reasonably foreseeable exposures. Establishes a system that initiates re-evaluation.<br><br>Comments on Category NA:_____ | | | | | | |
| 6. RISK-MANAGEMENT SYSTEM: Establishes a system to identify, document and implement health, safety and environmental risk-management actions appropriate to the product risk.<br><br>Comments on Category NA:_____ | | | | | | |
| 7. PRODUCT and PROCESS DESIGN and IMPROVEMENT: Establishes and maintains a system that makes health, safety and environmental impacts—including the use of energy and natural resources—key considerations in designing, developing and improving products and processes.<br><br>Comments on Category NA:_____ | | | | | | |
| 8. EMPLOYEE EDUCATION and PRODUCT USE FEEDBACK: Educates and trains employees, based on job function, on the proper handling, recycling, use and disposal of products and known product uses. Implements a system that encourages employees to feed back information on new uses, identified misuses or adverse effects for use in product risk characterization.<br><br>Comments on Category NA:_____ | | | | | | |

**Category NA** - **No action. If no action taken because the management practice is not applicable, please explain.**
**Category EV** - **Evaluating existing company practices against the Management Practice.**
**Category DP** - **Developing plan to implement Management Practice.**
**Category IA** - **Implementing action plan**
**Category PP** - **Management Practice in place.**
**Category RI** - **Reassessing Management Practice implementation.**

| | Categories | | | | | |
|---|---|---|---|---|---|---|
| | NA | EV | DP | IA | PP | |
| 9. CONTRACT MANUFACTURERS: Selects contract manufacturers who employ appropriate practices for health, safety and environmental protection for the operations under contract, or works with contract manufacturers to help them implement such practices. Provides information and guidance appropriate to the product and process risk to foster proper handling, use, recycling and disposal. Periodically reviews performance of contract manufacturers.<br><br>Comments on Category NA:_____ | | | | | | |
| 10. SUPPLIERS: Requires suppliers to provide appropriate health, safety and environmental information and guidance on their products. Factors adherence to sound health, safety and environmental principles, such as those contained in Responsible Care®, into procurement decisions.<br><br>Comments on Category NA:_____ | | | | | | |
| 11. DISTRIBUTORS: Provides health, safety and environmental information to distributors. Commensurate with product risk, selects, works with and periodically reviews distributors to foster proper use, handling, recycling, disposal and transmittal of appropriate information to downstream users. When a company identifies improper practices involving a product, it will work with the distributor to improve those practices. If, in the company's independent judgment, improvement is not evident, then the company should take further measures – up to and including termination of the business relationship. This Management Practice should be implemented in conjunction with the Distribution Code of Management Practices.<br><br>Comments on Category NA:_____ | | | | | | |

**Category NA** - **No action. If no action taken because the management practice is not applicable, please explain.**
**Category EV** - **Evaluating existing company practices against the Management Practice.**
**Category DP** - **Developing plan to implement Management Practice.**
**Category IA** - **Implementing action plan**
**Category PP** - **Management Practice in place.**
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| | Categories | | | | | |
|---|---|---|---|---|---|---|
| | NA | EV | DP | IA | PP | RI |
| 12. CUSTOMERS AND OTHER DIRECT PRODUCT RECEIVERS: Provides health, safety and environmental information to direct product receivers. Commensurate with product risk, works with them to foster proper use, handling, recycling, disposal and transmittal of appropriate information to downstream users. When a company identifies improper practices involving a product, it will work with the product receiver to improve those practices. If, in the company's independent judgment, improvement is not evident, then the company should take further measures -- up to and including termination of product sales.<br><br>Comments on Category NA:_____<br>_____<br>_____ | | | | | | |

Category NA - No action. If no action taken because the management practice is not applicable, please explain.
Category EV - Evaluating existing company practices against the Management Practice.
Category DP - Developing plan to implement Management Practice.
Category IA - Implementing action plan
Category PP - Management Practice in place.
Category RI - Reassessing Management Practice implementation.

# Product Stewardship Code

## Definitions

### Contract Manufacturer (Toll Manufacturer):

A contract manufacturer is an independent party that produces a product (or intermediate) or supplies a process for production of a product using materials or methods proprietary to the contracting company. Title to products remain with the contracting company throughout the process. The definition also encompasses operations such as repackaging and structural alteration. Disposition of produced materials, surplus materials, by products, co-products and wastes from the operation are at the direction of the contracting company. Confidentiality agreements between the contracting parties are the norm. Payment for the service may take many forms, i.e., currency, product exchange, or services. The contract manufacturer should not be confused with a supplier who furnishes a good or service in a much looser arrangement.

### Direct Product Receiver:

An entity (not an individual) to whom we transfer product.

This definition is included to capture categories of product receivers (such as brokers) who may not fall into the traditional customer category.

### Product:

Chemical substances and mixtures, materials and equipment, articles, licensed technology and services related to product use that are sold, distributed in commerce or otherwise provided.

### Product Life Cycle:

The Life Cycle of a product embraces those stages through which it retains its product identity. Typically, the Life Cycle would include:

- Product concept and development (even though a commercial product does not yet exist)
- Manufacture
- Transport and handling in the chain of commerce
- Use
- Disposition (reuse, recycle, disposal)

Product Life Cycle should not be confused with Life Cycle Assessment (LCA), which is an evolving science/methodology for assessing the various environment impacts of a product. LCA attempts to focus almost exclusively on environmental impacts, with little attention paid to health and safety impacts.

### Risk:

Risk refers to the probability that harm will occur from exposure.

## Risk Characterization:

The qualitative or quantitative process of estimating the potential for adverse effects to occur under various product use and exposure situations. It is performed by combining the product hazard information with potential exposures. Because hazard and potential exposure data along with public perceptions can change with time, the risk must be routinely reevaluated.

## Risk Management:

Risk management is action taken to reduce potential risk. This may range from no action to providing health, safety and environmental information to reformulation, repackaging, market restriction, etc., based on the risk characterization.