United States
Environmental Protection
Agency

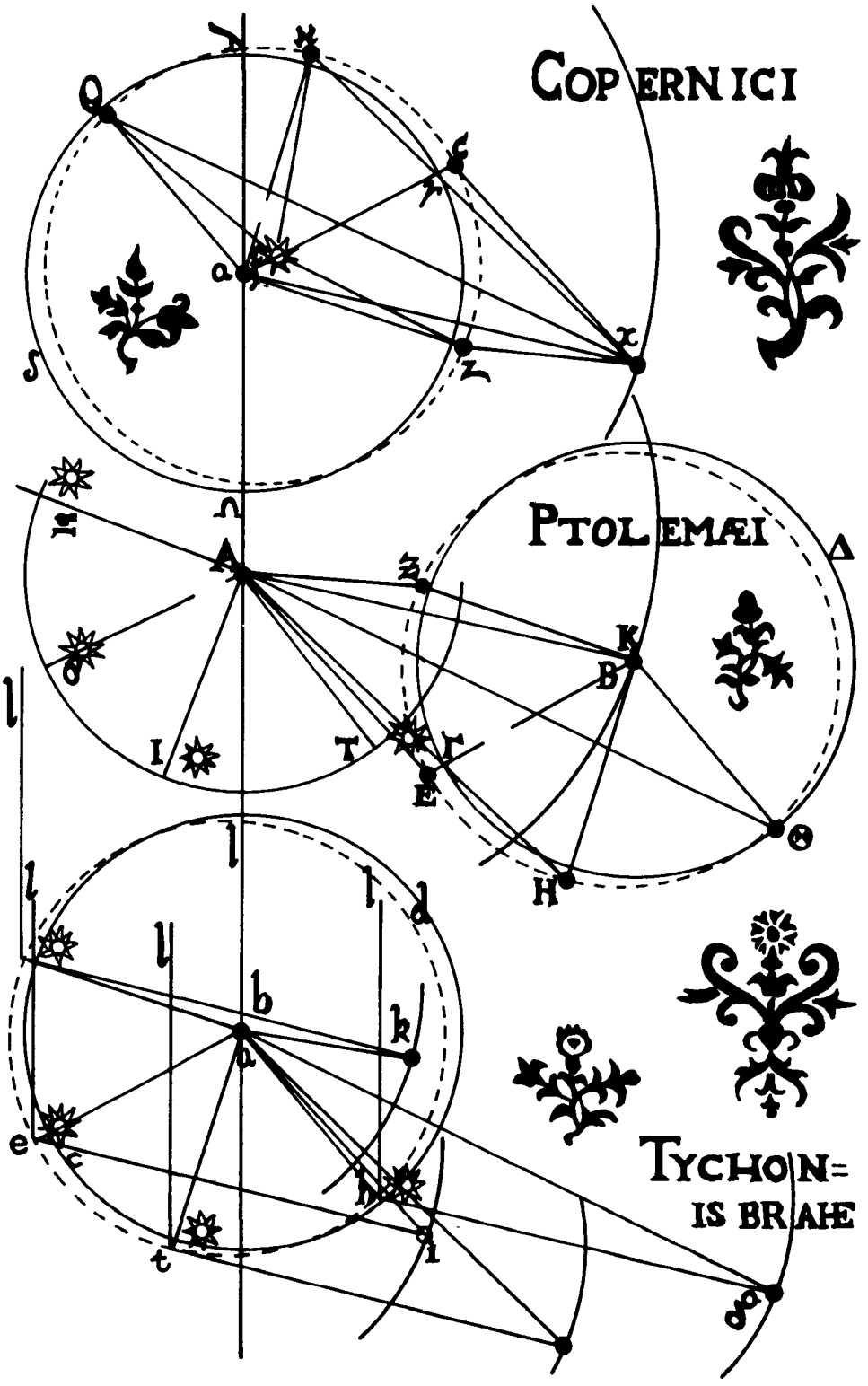
March 1980

5798

C. 2

Research and Development

# ORD Technical Information Policy and Guide



March 1980

# ORD Technical Information Policy and Guide

Office of Research Program Management
Office of Research and Development
U S Environmental Protection Agency
Washington, D C. 20460

U.S. Environmental Protection Agency

# Table of Contents


Introduction ..... iv
Technical Information Policy ..... 1
Abbreviations Used in This Guide ..... 5
Technical Information Guide ..... 7
- Introduction ..... 7
- Management and Implementation ..... 10
- Project Documentation ..... 13
  - Journal Articles ..... 14
  - EPA Research Reports ..... 14
  - Project Reports ..... 15
  - Unpublished Reports ..... 16
  - Project Summaries ..... 16
  - Achievements (highlights/bullets) ..... 17
- Meetings and Selected Publications ..... 19
  - Seminars/Reports ..... 20
  - Workshops/Reports ..... 21
  - Technical Conferences and Proceedings ..... 22
  - Non-technical or General Conferences ..... 23
  - Speeches/Papers ..... 24
  - Technical Newsletters ..... 24
  - Published Papers/Book Articles ..... 25
  - User Group Publications ..... 26
  - Special Products ..... 26
- Applications Guides ..... 28
  - User's Guides ..... 28
  - Design Manuals ..... 29
  - Handbooks ..... 30
- Summaries/Syntheses ..... 31
  - Research Summaries ..... 32
  - Decision Series ..... 32
  - Bulletins ..... 33
  - Program Summaries/Plans ..... 34
  - Technology Transfer Reports ..... 34
  - Outlook/Highlights ..... 35
  - Organizational Descriptions ..... 36
- Response Reports ..... 37
  - Problem-oriented Reports ..... 37
  - Criteria/Assessment Documents ..... 38
- Audio-Visual ..... 39
  - Films and Videotapes ..... 39

# Introduction

Our primary mission in ORD is to produce technical information. It is not only our most important product It is, in fact, the output—the pay-off—of our entire effort The information we generate is key to the development and support of regulations to protect human health and environmental quality Our information also provides important input into the process of developing national environmental policy

In this context, the way in which we track, package and distribute our technical information is as important as the way in which we develop that information. Good research that is not effectively communicated to the people who need to know about it is scarcely better than no research at all

The ORD Technical Information Policy and Guide is the foundation upon which we will build our technical information program The descriptions and procedures set forth in the guide go as far as we can to create a rational, flexible yet effective structure for all of ORD's technical products The benefits of implementing this new policy are multitude· we relieve our researchers and research managers of many of the burdens of report formatting and editing. We improve the credibility of ORD by increasing our emphasis on journal publications We improve our overall image by making our technical products both consistent and readily available from one location And, finally, we increase the impact and visibility of our program by focusing our efforts on reaching certain key audiences

The best aspect of this Policy and Guide is that it is workable It is directly relevant to the needs of each laboratory and office because each laboratory and office had the opportunity to participate in the development of the guide. The guide is not only ORD policy, it is your policy It is up to you to make it work

# *Technical Information Policy*

Our primary mission as the research arm of the Environmental Protection Agency is to provide the scientific information which the regulatory offices need to develop and enforce regulations Those regulations protect both the quality of our environment and the health of our citizens.

Part of this mission is *direct*—the production of criteria documents, expert testimony and other direct input into EPA's regulatory process. Another part of this mission is achieved by *indirect* means. Such means include journal articles, the production of scientific data to advance the state of knowledge, and the provision of manuals and guides for environmental managers Perhaps the most important indirect means whereby our research supports environmental protection efforts is through the communication of what we know—and of what we don't know—to the decision-making community (government, industry and interest group officials, and their advisors) and to the interested public

The responsibility for communicating our research information does not lie within any particular office or organization, it rests ultimately with each and every EPA researcher and project officer. This cannot be stated with enough emphasis Where we fail to communicate the progress and results of our projects to all appropriate audiences, then these audiences assume we are doing nothing to address their needs In this case, both sides suffer Our client audiences fail to get key information necessary to carry out their functions or to make effective policy. We fail to gain their interest and support.

This is not to say that every EPA researcher and project officer must become an expert in communications theory and design. There are specialists within the organization whose role is to package our information effectively It is, however, the researcher's and project officer's responsibility to bring important findings to the attention of those whose charter it is to sift, package and distribute that information. This responsibility equals in importance the need to publish research information in the accepted professional manner

To this end, every EPA researcher and project officer should have a clear idea of what types of information will result from his/her project and should plan ahead to have this information communicated to the people who need it in the most effective manner possible. Determination of the use and disposition of the data from each and every project should be an integral part of the planning for that project. After all, if we don't know what we're going to do with the information, why spend millions of dollars obtaining it? With this kind of planning we will be better able to respond with effective communications packages in a timely manner.

***The Technical Information Guide*** has been developed to provide key audiences with as much useful information as possible within our resource constraints The *Guide* presents specific information, on a product-by-product basis, for each of our information products The *Guide* itself is a reflection of our overall policy toward technical information.

It is the policy of the EPA's Office of Research and Development (ORD) that:

***Technical communications be managed as a major ORD program:*** Technical communications activities consume nearly as much of our resources as do several of our laboratories. The technical information program is to be managed with no less coherence and responsiveness than is expected from any other ORD program, and those who are answerable for our technical information activities will have the authority and resources necessary to carry out that responsibility.

***The products of our research—technical information—be tied closely to ORD's management reporting and program planning processes:*** The products described in the Technical Information Plans will, with few exceptions, be a comprehensive listing of all of the output agreed to via our planning process. These information products fulfill ORD's obligations incurred via the planning process, and complete the research cycle from planning through implementation to preliminary and final product. The weekly alert reports provide a mechanism for bringing technical information opportunities to the attention of ORD management. In addition, the quarterly achievement reports (highlights and bullets) provide the source of both the ORD quarterly reports to the Research Committees and our annual Research Highlights report

***Every research project be documented in an accepted professional manner:*** It is a legal requirement that our expenditures of public funds be documented. This should be done in one or more of the following ways: (1) through the publication of exceptionally important research results as an *EPA Research Report,* (2) through publication in a peer-reviewed journal, (3) through the submission of research *Project Reports* to the National Technical Information Service (NTIS) and publication of summaries of these reports as *EPA Project Summaries,* or (4) through the filing of an unpublished report, with written justification, at the Center for Environmental Research Information (CERI). In all cases, projects must be documented in some fashion with adequate background data to survive rigorous scientific challenge Projects may be explicitly assigned so as to produce other technical information products as described in the following guide, but all must comply with the provisions of this policy and guide.

***Documentation of research be tailored to specific audience needs:*** When a major effort is being planned, and before it is initiated, a specific audience or audiences should be targeted. The means for reaching these audiences should be planned for and budgeted. The sum total of all of an organization's technical information activities will constitute that organization's Technical Information Plan. While mechanisms will be provided for these plans to be changed as the project evolves, it is essential that there be adequate advance planning to allow the most effective use of the information being developed.

***Every information product be centrally filed:*** Every product published by ORD and every written presentation to any major non-ORD audience is to be provided to a central ORD-wide filing system. This requirement allows ORD to get the most utility out of all of our information transfer resources. The Center for Environmental Research Information (CERI) will maintain these files.

***There exist one point for access to information on all research products:*** As a service to the entire EPA research operation, and more importantly, as a service to all of our key audiences, CERI will expand its current central information access service. This reference service will maintain files of all of ORD's products and

provide requestors either with copies of the documents or with explicit references to NTIS when copies are no longer available from ORD This facility will be the only formal report distributing operation within ORD

***An audience-oriented ORD-wide mailing list be developed, maintained, and used by all ORD operating elements:*** In order to assure that all appropriate audiences, and all members of those audiences, are provided with the information packages we develop, a centralized mailing list will be developed by CERI for all of ORD This list will include all laboratory mailing lists and may, eventually, operate via the same system as does the EPA agency list. All major mailings will, thus, be coordinated out of a single location

***There be a designated Technical Information Manager within each major operating unit:*** The most appropriate individuals to monitor the development of sources of research information are within the laboratories and major operating units. They are to be responsible for initiating most information products and for assuring adequate review of the scientific content of all of those technical information packages related to their program area. One individual is to be designated within each laboratory and major ORD organization, with authority to propose, negotiate, review and approve all technical communications products within the purview of that laboratory or operating unit. In addition, each Deputy Assistant Administrator shall name one Technical Information Program Manager to provide oversight for technical information activities within that DAA's purview

***Communications and information transfer support be made available to all operating units:*** Just as it is the responsibility of the researchers to identify information for dissemination and to assure the technical accuracy of all technical information products, it is the responsibility of the communications group (TIO/CERI) within the Office of Research Program Management (ORPM) to provide support for developing various information products. This group will also provide quality control of technical information products Responsibility for technical content of ORD products will remain with the appropriate laboratory and office personnel

***The emphasis of most of our research communications activities be on issues, problems and solutions:*** We are a research and development office which supports a regulatory agency We gain in stature and support, and our audiences gain in insight and appreciation, when we address the problems and concerns of our times We gain little if anything through the aggrandisement of any organization Based upon cost-effectiveness criteria, very few organizationally oriented information packages are justifiable

***Existing information activities be exploited or be abolished:*** All technical information activities, especially recurring activities such as annual conferences or newsletters, will be periodically reviewed by the responsible ORD official (as defined in the Guide) to determine if they are cost-effective If they are not, they will be cancelled If an alternate mechanism would be more appropriate for meeting the stated objective, that mechanism should be substituted

***All printing of technical information documents be processed through a central location:*** More than two million ORD dollars are spent printing research information documents each year. To assure high quality service, all printing will be processed through CERI. The only exceptions to this policy will be certain technical newsletters, news releases, and document duplication as defined in Government Printing Office (GPO) regulations

***Printing be held to a minimum, and all GPO regulations adhered to:*** Maximum use will be made of the peer journals and NTIS, where appropriate, to document our research and distribute its results. The most paper- and energy-conservative course will be chosen commensurate with the effective provision of the information for our key audiences.

***Maximum appropriate use be made of the ORD Public Information Officers:*** Wherever a technical information product is to be distributed which may be of interest to the general public, it will be done in coordination with ORD's Public Information Officers who will, in turn, coordinate as necessary with the Office of Public Awareness and the EPA Press Office. Like all other research information activities, such actions must receive appropriate policy clearance and be coordinated with ORPM.

***All technical information products convey a consistent image:*** EPA's research program is, for all practical purposes, judged by what we produce. The information packages and services provided to each of our key audiences should be carefully developed and monitored so that each conveys an image of consistent high quality and relevance. In addition, means must be established for measuring the effectiveness of our information products in reaching our intended audience(s). This is the responsibility of ORPM.

***Only those technical information products described in the Guide be produced by ORD:*** Where a technical information product is desired and it cannot be equated with any of the products listed in the guide, specific authorization is required from ORPM for that product to be *initiated.* Should a large number of similar exceptions be required, the Guide will be modified by ORPM to reflect changing needs.

***Finally, and most importantly, nothing in the Guide be interpreted to impede the effective and timely flow of technical information:*** The essence of ORD's *Technical Information Guide* is that it provide the structure for adequate quality control and, at the same time, be flexible in its implementation. Wherever the specifications in the Guide tend to disrupt effective information transfer, this fact should be brought to the attention of the Director, ORPM An appropriate resolution will be worked out.

These are the major technical communications policies of the Office of Research and Development. They are intended to achieve an optimal balance between individual creativity and expression, on the one hand, and the need for consistent, effective presentation of our research results, on the other. The implementation of these policies will be carefully monitored to assure that this is the case.

# Abbreviations Used in This Guide

***AA***—The *Assistant Administrator for Research and Development* is the final authority on both ORD's technical information policy and the policy content of technical information products.

***DAA***—The *Deputy Assistant Administrators* review and approve the technical information plans of their laboratories and headquarters offices. They assure proper balance, adequacy of effort and sensitivity to policy matters of the total technical information program.

***ORPM***—The *Office of Research Program Management* at ORD headquarters develops overall ORD policy with regard to technical information. It is ORPM's responsibility to assure that this policy and guide is kept responsive to the needs of both ORD and its key constituencies (audiences).

***CERI***—The *Center for Environmental Research Information,* located in Cincinnati, is responsible for almost all printing and distribution of ORD reports and for providing support services for ORD conferences, seminars and workshops. CERI plays a control role in the production of user applications guides and in the quality control of most ORD publications.

***TIO***—The *Technical Information Office* is part of ORPM in headquarters and acts as the headquarters counterpart to CERI. TIO handles the production and quality control of ORD publications targeted at the decision-making community and the interested public, and of those technical information activities which have a large component of policy sensitivity.

***TIM***—Each laboratory and office will have a *Technical Information Manager* who is responsible for developing and coordinating his or her organization's technical information program The TIM will serve as the main link between the organization and CERI, and may be delegated by the laboratory director principal authority to review and approve resources for major technical information activities.

***TIPM***—Each ORD Deputy Assistant Administrator will appoint a *Technical Information Program Manager* to review, monitor and advise the DAA on the technical information programs of the laboratories under that DAA's purview. The TIPM will review all technical information plans and all major modifications (added or deleted activities or major schedule changes) to these plans.

***TIP***—Every laboratory and office will, working through their TIM and in cooperation with CERI and TIO, develop an annual *Technical Information Plan.* This plan will define the specific output committed to by their organization in earlier resource planning activities. The TIP will inform the DAA's and the Research Committees of the timing and content of specific "deliverables" alluded to in resource planning documents. Prior to the beginning of each fiscal year, a TIP will be submitted by each laboratory to its DAA for review and approval Any major changes (added or deleted activities or significant schedule changes) to the TIP must be reviewed by the DAA and/or headquarters TIPM.

# *Technical Information Guide*

## Introduction

This guide has four main goals:

1. To improve how technical information is moved in ORD.

2. To remove some of the burden of information packaging from the researchers.

3. To tie our research information products directly to ORD's management and program planning processes.

4. To better reach the key audiences which need ORD information.

Whether or not the Guide accomplishes the first three goals will be determined by time and the implementation process. The fourth goal—improving the way we reach our key audiences—deserves some further discussion.

For purposes of illustration, we break the key audiences for the information developed by EPA researchers into five groups:

Environmental regulators
Scientific and technical peer groups
Technical applications community
Environmental decision-makers
Interested publics

Our information is necessary for these people to do their jobs and to formulate national environmental policies. If we fail to communicate with any of these audiences in a form which they can understand and use, we greatly diminish the value of our entire research and development effort. Communicating our results, no less than planning, implementation and management, is an integral, essential part of research in EPA. Information is our product.

It is difficult to say that any of these five audiences is more important than any other to our mission, our program or even our continued existence. Each, for different reasons, is an important and highly valued client who needs to share the results of our research efforts. And each needs a different type of information presented in a different way.

As communications packages are evolved, they should focus on one or several of ORD's key audiences. Each audience is different. Each speaks a different language, from sophisticated science to equally sophisticated political economics, with straightforward English in between. Each has a different use for the information, from the precision of legally enforceable science to the generalized world of social influence. Each invests a different amount of time in absorbing information, from the methodical approach of a control systems engineer to the frenetic pace of an industrial executive. And each has a different level of motivation to seek our data in the first place.

Each audience is different, and each requires of us a differing and appropriate response. A short description of each of these audiences, along with an indication of the type of information needed by each audience, follows.

## *Environmental Regulators*

Perhaps the most diverse, and certainly the most directly concerned client of EPA's research program is the environmental regulatory community. This community includes individuals within EPA's regulatory offices who must propose, monitor and/or recommend revisions to standards. It also includes the front-line regulators in the EPA Regions, the states, cities and other local governments.

The environmental regulatory community is the primary *raison d'etre* of EPA's research and development program. Their needs shape our research program. Their decisions and actions are shaped by our research information. These are the people charged with protecting the health of this and future generations from environmental assault. We are the people they look to for the information necessary for them to succeed.

These individuals need various types of information but, above all, they need accurate and legally defensible scientific data. They also need specifically targeted information ranging from the state-of-the-art overviews (the pollutant criteria documents which are the cornerstone of exposure standards) to more tailored information products such as expert witness testimony and technical support. Most of all, these people need to know who knows what—they need easy access to the latest data and to the experts who can interpret this data in the regulatory milieu.

## *Scientific and Technical Peer Groups*

The research scientist's work is done under the continuing scrutiny of his or her peers. The peers, in this case, are highly qualified scientists who are either trained in or familiar with the details being investigated by EPA's researchers and, at the same time, are willing to put their professional reputations on the line by judging the quality of another's work. This group includes bench scientists, academicians, and research project managers throughout the industrial, governmental and university research community. To gain professional acknowledgement, therefore, our researchers' work must not only be well executed, it must also be original and contribute significantly to the general fund of human knowledge.

In research there is a self-checking system which contributes greatly to improving both the quality and the utility of the effort. This self-checking process requires a very high level of communication among scientists in the same discipline and among scientists in different disciplines but working on the same problem. These groups rely on the unfettered exchange of information on research results to confirm and enhance the results of their own efforts. It is this process of investigation and interaction which produces reliable technical data.

The scientific and technical community needs information that is specialized and detailed. This information is normally produced through the peer review journal publication process, through personal interchange and through presentations at various technical convocations. In addition, this community needs to know not only what we have done but also what we plan to do. By providing the scientific community with a forewarning of our future priorities and research directions we not only augment our impact by allowing others to respond to our lead, but we also gain from the feedback they provide on our plans.

## *Technical Applications Community*

In any technologically advanced society there exists a significant time gap between the point at which a fact is proven or a technology is developed and the point at which that fact or that technology becomes part of everyday life. The individuals responsible for implementation of environmental pollution control regulations are dependent on the rapid closing of these time gaps in order to carry out their mission in the most cost-effective manner.

These individuals are often highly trained in their profession, be it treatment plant construction engineer, industrial air pollution control designer or environmental monitoring technician. However, they work within one of the most dynamic professions in the country. Yesterday's experimental techniques rapidly become today's technology of choice. And, just as rapidly, today's technology becomes outdated by tomorrow's research developments. Similarly, new laws and regulations require the adoption of new techniques and equipment.

It is the task of these individuals to turn environmental regulations into real gains in environmental protection. To do so, they must keep abreast of the latest developments. If EPA's regulations are to be effectively implemented, this community must be provided with all of the technical information necessary to do the job. This communications process takes many forms, from regional seminars and workshops to design manuals, handbooks and user's guides. These mechanisms provide detailed "how to" information and training. Other sources such as magazine articles, professional society publications, technical summaries, films and special publications provide additional background and educational material.

While there are several non-governmental mechanisms available to carry part of this information transfer burden, they are by no means sufficient to assure the rapid and effective implementation of environmental regulations. The enforceability and degree of compliance with our regulations depends to a great extent upon the effective transfer of our research information to the implementation community.

## *Environmental Decision-Makers*

Environmental legislation, budgets, personnel resource constraints and overall trends in environmental research are strongly influenced by a relatively small group of key advisors, executives, political representatives, communications professionals, and bureaucrats. On any particular issue, these individuals will strongly influence both public opinion and the behind-the-scenes power brokering which shapes the resolution of the issue.

Only a few of the members of the environmental decision-making community are environmental experts. Most are far more adept at the political process than at scientific research. They are intimately involved in the give and take of balancing interests and priorities. In this process, information is a tool and facts are weapons. The opinions of these decision-makers shape our environment. These opinions are influenced by many forces—dedication, self-interest, knowledge and prejudice. But their opinions are also influenced by research information presented in a form and format which they can absorb.

These individuals have little or no time to spend pouring through the technical or scientific details of an issue in order to discover for themselves "the truth." Their information comes from magazines, newspapers, briefings, special reports and

personal contacts. We need to get our information to these individuals so that their opinions, when formed, will at least be formed with the best possible information. To do so requires a special effort to produce the type of summary information products which will communicate to these audiences, and to provide these products *before* the decision-makers have become set in their opinions. Such efforts require the highest degree of communications expertise and sensitivity to policy matters.

### *Interested Publics*

In our society, issues mature and resolutions evolve within a complex milieu of competing interest groups. What makes our system of resolving these issues so different from most others is that much of this process takes place in a public or semi-public setting. This is especially true of environmental issues. Such issues are, quite literally, personal issues of survival, health and/or employment to millions of Americans. Industrial associations, unions, public interest groups, regional planning organizations and conservation advocacy associations all participate vigorously in the debate on various environmental issues. Such debate is crucial to the balancing of conflicting priorities and to the development of a reasonable consensus—it is the foundation of the democratic process which has characterized our government for two centuries.

The better informed that environmental interest groups are, the more reasonable their consensus will be. Participants in these interest groups are seldom specialists in environmental matters. They are simply highly concerned and highly motivated citizens. The information they need must be presented in a form which, while understandable to the nonspecialist, also presents enough substantive data to allow them to draw their own opinions and to participate in the debate.

Better information for these environmental interest groups benefits everyone. It benefits the interest groups by enabling them to participate more fully in the debate. It benefits the government in general by demonstrating that the key issues of public concern are being addressed. It benefits the conflicting parties in the issue by raising the level of information in the debate and by dispelling false arguments on both sides. And it benefits the regulatory community by helping to develop a workable consensus which will simplify and support the enforcement process.

Keeping one or more of these audiences in mind as a technical information product is developed will improve both the quality of the product and its usefulness to its recipient.

# Management and Implementation

The management approach to our technical information activities divides the development of the *technical information* from the development of the *format and presentation* of the technical information products It is the intent of this policy to assure that qualified persons in each area, researchers and research managers in the former and technical communications specialists in the latter, be clearly responsible for their area of expertise.

Technical communications support is to be made available equally to all parts of the Office of Research and Development. It will be provided, in the main, through level-of-effort support contracts managed by the Center for Environmental Research Information (CERI) and by the headquarters Technical Information Office (TIO). Technical communications tasks will be initiated at the appropriate level of ORD management. A plan will be developed by the appropriate laboratory personnel under the guidance of the laboratory Technical Information Manager The Technical Information Manager will be the key managerial link between the scientists and their research in the laboratories and the information specialists of the CERI/TIO staff and/or its contractors The initiator of the project (Laboratory or headquarters organization) will fund each product on an at-cost basis. With the exception of journal articles, news releases, and most products intended for intra-laboratory or peer group distribution, CERI will be responsible for maintaining the quality of the product and for its printing and distribution

The amount of involvement of CERI and/or TIO in the development of any given technical communications product depends upon two basic factors: the amount of professional communications expertise required to produce the product and the breadth of the intended audience For example, in those cases where the amount of professional communications processing is low and the audience is a narrow technical one (journal articles, in-house newsletters, highly technical conferences) the laboratories will handle most if not all of the activities themselves and be required only to submit copies and summaries to CERI.

On the other end of the spectrum, where the amount of communications skill required is high and/or the product is intended for a broader audience, CERI and TIO are responsible for providing the communications support necessary to produce the product, and are ultimately responsible for providing quality control over the process and for assuring that the final product is appropriate for, and distributed to, the intended audience.

In general, responsibilities will be divided as follows *Researchers and project officers* will be responsible for producing journal articles and the drafts of the new EPA Research Reports and other technical communications. They will propose conferences and other information activities and will provide technical input and review of all information packages relating to their area of expertise. They will also, and very importantly, alert management to important research developments through the current management reporting system In addition, the researcher or project officer is solely responsible for obtaining and submitting all necessary permission letters, courtesy notes, and clearances for copyrighted material

The laboratory *Technical Information Manager* is responsible for working with laboratory researchers and project officers to develop the organization's annual

technical information plan to assure that the plan is kept updated. In addition, the Technical Information Manager develops information product plans and negotiates with CERI, where appropriate, to develop optimum information products This individual will also monitor the development of technical information products and provide or coordinate appropriate technical review of, and/or final laboratory signoff on, technical information plans, products, and resource transfers

The *Laboratory Director* reviews the laboratory's technical information plan and approves most of that laboratory's technical information publications and conferences. He or she recommends those projects which are to be specially treated in the new EPA Research Report series of publications, approves technical conferences and recommends for DAA approval conferences intended for broader audiences. The Laboratory Director also approves the use of the laboratory resources to support each technical communications product and appoints the Technical Information Manager for the laboratory.

The *Technical Information Program Manager*, appointed by the Deputy Assistant Administrator, provides oversight of the entire technical information program within the DAA's office This individual reviews, in detail, the laboratory's technical information plans and all major modifications to those plans The Technical Information Program Manager coordinates the policy-level review of those products which require such a review and makes recommendations to the DAA on all aspects of the technical information program.

The *Deputy Assistant Administrator* reviews and approves the technical information plans of his or her organization to assure an appropriate balance and specifically approves those conferences which are aimed at a broad audience. The DAA also provides or assigns someone to provide policy-level review and approval for those technical communications products which require policy review and/or are aimed at broad audiences on subjects within that DAA's purview. Finally, the DAA appoints a Technical Information Program Manager to monitor, review, coordinate and make recommendations on the entire range of that office's technical information activities.

The responsibility of *TIO/CERI* is to provide technical communications support to all of ORD and to process all printing of products aimed at audiences beyond the technical peer group or laboratory personnel. CERI will develop an ORD-wide mailing list and handle most distribution. TIO/CERI will work with Laboratory Technical Information Managers and the DAA's Technical Information Program Managers to develop technical information plans and to provide quality control over most ORD research information products. They will also provide and/or coordinate most support activities for conferences and technical communications products aimed at broad audiences. This will be accomplished through TIO and CERI-managed level-of-effort contracts to be provided to the rest of ORD on a cost-reimbursable basis

# Project Documentation

Every EPA research contract, grant, or comparable in-house research project must be properly documented. Such documentation has a three-fold purpose. First, it assures that all useful information and data are made available to the scientific and regulatory communities through appropriate channels. Second, it assures the availability of all relevant data, in accessible form, in case of serious legal or scientific challenge. Third, it accounts for the expenditure of public funds and assures that EPA researchers get credit for their work.

Permissible documentation of research projects—projects not exclusively designed to produce one of the other products described in this guide—must take one or more of the following forms:

***Journal Article(s)*** are encouraged. The peer-review mechanism is an excellent way of establishing the quality of our work.

***EPA Research Reports***—specially formatted technical reports distributed by EPA—will be reserved for only the very best and most important ORD research outputs.

***Project Reports,*** in flexible format, will fill in the gaps not adequately covered by either Journal Articles or EPA Research Reports. These reports will *not* be printed by EPA and will be made available only through the NTIS system.

***Unpublished Reports:*** In exceptional cases where none of the above are appropriate an unpublished report, along with justification for nondistribution, is required to be centrally filed with CERI.

The production of a ***Project Summary*** is required for every Project Report. This summary will be printed and distributed as appropriate to gain visibility for, and widespread use of, the information generated in a Project Report.

The quarterly ***Achievement (highlights/bullets) Reports*** required by the ORD Management Guide will be reformatted to focus on the Research Committees and distributed to them.

The following matrix shows the *primary* audience(s) for each product in the Project Documentation category. Virtually any product may, of course, also have one or more secondary audiences.

| | Audience | | | | |
|---|---|---|---|---|---|
| **Information Products** | **Regulatory** | **Scientific & Technical** | **Technical Applications** | **Interested Public** | **Policy/Decision Makers** |
| Journal Articles | | X | | | |
| EPA Research Reports | X | X | X | | |
| Project Reports | | X | X | | |
| Unpublished Reports | | | | | |
| Project Summaries | | X | X | | |
| Highlights/ Accomplishments | X | | | X | X |

## *Journal Articles*

### *Description*

**Journal articles are the major means by which ORD scientific information reaches the research community. They afford researchers the experience of presenting their results in compliance with the often rigorous requirements of the journals for substance, style, and format. Also, articles accepted by peer-reviewed journals enhance ORD's credibility and reputation with peer audiences in all fields.**

**Another benefit of good journal articles, often taken for granted, is that they provide references for the development of criteria documents and for the defense of proposed and existing standards. From the standpoint of the regulatory audience, and in terms of EPA's primary mission, this is an objective which every journal article author must keep in mind.**

***Initiation***—Anyone in ORD may initiate a journal article. He or she may initiate it through whatever channels are appropriate in his or her laboratory or office.

***Review/Approval***—It is the responsibility of the Laboratory Director or DAA (whichever is the more immediate supervisor) to give final review and approval if the article was produced on EPA time or is based on EPA-supported research. This responsibility may be delegated to the Technical Information Manager. Private articles done on a researcher's own time, in private facilities and not based on EPA work require no approvals. Journal articles are the ultimate responsibility of the Laboratory Directors or DAA's and do not involve the Office of Research Program Management (ORPM) except for distribution and documentation.

***Preparation***—The initiator will write the journal article. He or she may request graphics or editorial assistance from CERI

***Quality Control***—Articles to be submitted to peer-reviewed journals do not require additional prior EPA peer reviews, except in those cases deemed highly sensitive by the Laboratory Director. Refusal by any level of management to approve of a submission to a peer-reviewed journal may be appealed to the next higher level of management

***Reporting/Distribution/Documentation***—Once the responsible Laboratory Director or DAA has approved the submission of a journal article, a copy of the article, along with an abstract, is to be submitted to CERI simultaneously with submission to the intended journal CERI will negotiate with the journal to obtain sufficient numbers of preprints to satisfy internal demand and the author's request CERI will also handle submitting the article to NTIS after publication CERI will develop mechanisms whereby the abstracts and NTIS submissions can be effectively publicized to the Research Committees and EPA program offices. Finally, it will be the responsibility of the project officer to assure that copies of all journal articles supported by EPA and authored by EPA contractors and grantees are also submitted to CERI

## *EPA Research Reports*

### *Description*

**These reports represent the best of EPA's research in an attractive, high-quality format. Normally 100 to 200 pages in length, these reports may be the result of a single major research project, a synthesis of the results of several related research projects, the product of a very important conference, or a**

**special technical report generated from scratch to meet an overriding information need. EPA Research Reports will present only the finest products of our research. They normally will contain information not appropriate for or not published in peer-reviewed journals, but they will not normally contain large volumes of back-up data. This data will normally be submitted to NTIS and merely referenced in the EPA Research Report.**

***Initiation***—Any researcher or project manager may propose an EPA Research Report. This proposal, comprised of an abstract, justification and expected cost (production costs obtained from CERI), will be submitted through his or her supervisor and the Technical Information Manager, to the Laboratory Director, DAA or Office Director. Any one of the latter three individuals may initiate the project by authorizing the requisite resources.

***Review/Approval***—The appropriate DAA, Laboratory or Office Director will have final approval authority. This authority may be delegated to the appropriate Technical Information Manager. Review procedures will be determined by the approving official consistent with ORD peer review policies.

***Preparation***—Once approved, the EPA Research Report will be prepared by the initiator (or contractor or grantee). CERI will be available to provide editorial support, at cost, if so requested by the project initiator. When the final draft of the report is approved it will be submitted to CERI for typesetting and graphics, with CERI's extramural production and printing costs to be reimbursed by the initiator's organization.

***Quality Control***—All control over the content of the report will be the responsibility of the initiator, subject to the review/approval procedures stipulated above CERI will be responsible for style, format, layout and graphics. The initiator will approve the final product prior to printing.

***Reporting/Distribution/Documentation***—CERI will have the report printed and submitted to NTIS. CERI will also provide widespread notice of the report's availability and handle distribution of the report to a special list of key libraries, to those stipulated by the project initiator, and to other recipients on request.

## *Project Reports*

### *Description*

**Project Reports provide the means by which most EPA research is documented and made available to the research community. Project Reports are required when (1) neither a journal article nor an EPA Research Report is produced, or (2) the journal article or EPA Research Report published is incomplete in terms of fully documenting the project or would require additional background data to survive rigorous scientific challenge. A Project Report is published and distributed by NTIS only; it is not printed by EPA. For every Project Report produced, a Project Summary must also be produced (see the procedures under "Project Summary" in this section).**

***Initiation***—Creation of a Project Report is the responsibility of the EPA project officer or researcher.

***Review/Approval***—The project officer or researcher is responsible for obtaining any required peer review of Project Reports. The Laboratory Director determines whether or not the Project Report is to be submitted to NTIS for public distribution.

If the report is not submitted to NTIS, see the procedures under "Unpublished Reports," in this section.

***Preparation***—The contractor, grantee or EPA researcher is responsible for preparation of Project Reports under the guidance of the project officer (if extramural). The project officer or researcher is urged to adhere to "Handbook for Preparing Office of Research and Development Reports." This specification may, however, be waived by the project officer or researcher. Minimum acceptable documentation is camera-ready manuscript (image area and reproducibility conforming to NTIS requirements).

***Quality Control***—Technical content is the responsibility of the project officer.

***Reporting/Distribution/Documentation***—CERI is responsible, with the approval of the Laboratory Director, for submitting the report to NTIS for public distribution

## *Unpublished Reports*

### *Description*

**Unpublished reports are those for which a decision has been made that publication would not be in the public interest for one or more of the following reasons: (1) The quality of the work was substandard, misleading, or so inconclusive as to have no scientific value; (2) the results are highly redundant of a prior investigation; (3) the results are to be incorporated in subsequent reports (definitely planned) and early dissemination of partial results would not prove cost-effective; or 4) the results are to be published by another Government agency in cooperation with EPA.**

***Initiation***—Any researcher may propose that a report not be published through whatever channels are appropriate in his or her office.

***Review/Approval***—It is the responsibility of the Laboratory Director to decide whether a report will remain unpublished This responsibility may be delegated to the Technical Information Manager.

***Preparation***—The initiator prepares the final draft of the report together with a short justification of why the report should not be published, and forwards these through appropriate channels (including the Technical Information Manager) to the Laboratory Director.

***Quality Control***—Technical quality control is the responsibility of the initiator.

***Reporting/Distribution/Documenting***—If the Laboratory Director gives approval *not* to publish a report, the initiator forwards a copy of the report plus justification for non-publication to CERI for cataloguing. When a report has been deemed unfit for publication, is should not be referenced or distributed.

## *Project Summaries*

### *Description*

**A Project Summary is a short synopsis of the key findings of a research project which are otherwise published and recorded only as a Project Report via NTIS. These summaries should be written in terms technical enough to convey the essence of the project, but not so technical as to be comprehensible only to a narrow technical peer group. The summary should be as short as possible,**

**ideally less than four pages in length, but up to 16 typed pages may be necessary on exceptional reports. Project Summaries are key means for gaining wider appreciation for ORD's research. Project Summaries, unlike thier parent Project Reports, are printed and distributed by EPA.**

***Initiation***—Researchers who document a research project with a Project Report must produce a Project Summary.

***Review/Approval***—The project officer or researcher is responsible for obtaining any peer review required by ORD/Laboratory policy. This review will be obtained simultaneously with the review of the Project Report upon which the Project Summary is based. The Laboratory Director approves the Project Summary for publication and distribution. Such approval authority may be delegated to the Technical Information Manager.

***Preparation***—Production of a Project Summary is the responsibility of the individual who produced the parent Project Report. The draft of the summary will be sent to CERI along with the Project Report. If the draft is not acceptable for publication, CERI will return it to the Project Officer for revision or, at the researcher or Project Officer's option and expense, provide a contractor to rewrite the Project Summary. If no acceptable Project Summary is produced within three months of the time the parent Project Report is submitted to CERI, CERI will have a summary produced at the laboratory's expense. CERI will also be responsible for typesetting and graphics, with any extramural costs reimbursed by the organization which submits the report.

***Quality Control***—Technical content of the Project Summary is the responsibility of the EPA researcher or project officer. The Technical Information Manager is responsible for monitoring the quality and effectiveness of the summary itself. CERI will handle any typesetting or graphics required, or will delegate this responsibility in cooperation with the Technical Information Manager.

***Reporting/Distribution/Documentation***—CERI will distribute the Project Summaries to the audiences specified by the initiator and to any other audiences as appropriate. Project Summaries will contain clear reference to NTIS for the full report.

## *Achievements (highlights/ bullets)*

### *Description*

**Achievements (highlights/bullets) are quarterly, project-level reports required under the ORD Management Report Guide. They describe the *major* scientific and technical advances realized, or support activities conducted, by ORD during the immediately preceding quarter. Bullets are short summaries; Highlights are longer, more detailed explanations including some background information.**

***Initiation***—Achievement reports are initiated by each laboratory and major office on a quarterly basis. In most cases, the initiator will be the individual researcher or project officer whose project is featured. Every Highlights and Bullet report must be accompanied by the name and telephone number of the most appropriate contact(s) for further information.

***Review and Aproval***—These reports are submitted through the Laboratory Director, reviewed by the Deputy Assistant Administrator and forwarded to ORPM's Planning Staff.

***Preparation***—Anyone in ORD may submit either or both of these reports for approval and transmission through appropriate management channels. Whenever a longer "highlights" report is submitted, it should be accompanied by a short "bullet" report summarizing the salient aspects of the former. The Technical Information Office will reformat the reports (arranging them according to Research Committee) and, without changing the content, circulate an EPA Research Quarterly report to a limited audience.

***Quality Control***—The Laboratory Directors, Office Directors and Deputy Assistant Administrators who submit Highlights and Bullet reports will be responsible for their accuracy, consistency with agency policy and the appropriateness of their distribution beyond ORD. The Technical Information Office will be responsible for assuring that distortion or error is not introduced during the reformatting process.

***Reporting/Distribution/Documentation***—Distribution of quarterly Highlights and Bullet reports will focus on the Research Committees and associated EPA offices. The reports will be filed by CERI and will *not* be made available to NTIS.

# Meetings and Selected Publications

**On a per-person-reached basis, conferences, seminars and workshops are by far the most expensive means of transferring our technical information. At times, however, they may be cost-effective, especially when it can be clearly justified that face-to-face contact with a particular community provides the most efficient means of transmitting the information. Technical Newsletters, Published Papers and Book Articles, and User Group Publications may be appropriate alternative media for transferring information to specific communities.**

***Seminars*** are means of rapidly transferring the latest technological developments from ORD researchers to the technical applications, enforcement and scientific communities. Seminars are tutorial in format.

***Workshops*** are highly interactive, often free-ranging discussions among experts on a particular scientific issue. The product of a workshop is improved communication among scientists working in similar areas and a better understanding of the topic under discussion.

***Technical Conferences and Proceedings*** address narrow scientific or technical issues in a speech presentation rather than an interactive format. They differ from seminars in having more rigorous formal presentations, a broader scope of concerns and lower level of audience involvement. Such conferences employ a rigid format including prepared papers and proceedings.

***Non-technical or General Conferences,*** designed to transfer the latest information beyond a narrow scientific or technical audience, are both highly visible and relatively costly. They are appropriate only for exceptionally important issues or broad program areas. They, too, employ a strict format of prepared papers and proceedings.

***Speeches*** refer to formal presentations made before groups which include a large portion of non-EPA individuals.

***Technical Newsletters*** keep the research or technical community informed of the current status of research, and of meetings and publications in particular subject areas.

***Published Papers/Book Articles*** allow researchers to communicate at a peer-group level

***User Group Publications*** are specialty publications produced outside the Agency and designed to reach specific users of environmental information.

***Special Products*** include such publications as bibliographies, the EPA Research Program Guide and solicitation brochures. Production of these reports is normally a prerogative of the highest ORD management level.

The following matrix presents the above information products in the context of their primary audience(s). Each product may, of course, have one or more additional secondary audiences.

| Information Products | Audience | | | | |
|---|---|---|---|---|---|
| | Regulatory | Scientific Technical | Technical Applications | Interested Public | Policy/Decision Makers |
| Seminars/Reports | X | | X | | |
| Workshops/Reports | X | X | | | |
| Technical Conferences and Proceedings | | X | X | | |
| Non-Technical or General Conferences | | | X | X | X |
| Speeches/Papers | | X | | | |
| Technical Newsletters | | X | X | | |
| Published Papers/ Book Articles | | X | X | | |
| User Group Publications | | X | X | | |

## *Seminars/ Reports*

### *Description*

**Seminars are an effective means of rapidly transferring technological developments from ORD Laboratories to a specific audience. Seminars are aimed at the user community—the regulatory side of EPA and the technical applications community. They often approach conferences in audience size, but their approach is more instructional and the subject matter is focused more on a specific development of interest to the audience. Seminars are most appropriate when research and development results need to be communicated more rapidly than would be possible in a completely developed handbook or report and when a live exchange of views is essential to foster such communication.**

***Initiation***—Any individual or group in ORD may propose a seminar. The initiator will prepare a proposed agenda, list of speakers and attendees, seminar objectives, and all anticipated costs for holding the seminar and producing the documenting report. Estimated support costs are obtained from CERI. Seminars may also be initiated through requests from the regions or program offices. The proposal will then be submitted to the appropriate Laboratory Director or DAA.

***Review/Approval***—It is ORD policy that all seminars be reviewed and approved by the appropriate Laboratory Director or DAA.

***Preparation***—Once a proposed seminar has been approved, the substantive development (defining the scope, securing the best available speakers, etc.) is the responsibility of the initiator, with CERI available in a consulting role. The support aspects of the meeting (site selection, displays, audio-visual, recording and preparation, etc.) will be accomplished with CERI or CERI-managed contractor support. Every seminar must result in the production of a report of some sort, and funding must be set aside for this purpose. Format for report preparation and production will be established by the Technical Information Manager in

consultation with CERI. CERI will be reimbursed for any extramural expenses incurred.

***Quality Control***—Technical quality control is the responsibility of the initiator. CERI provides quality control over the selection of the most effective site for the seminar, the best displays and graphic presentations, the best audio-visual support, etc. CERI will provide support contractors, where necessary, on an at-cost basis. CERI's role may be delegated by CERI to the Technical Information Manager on a case-by-case basis. In all cases, however, CERI approval of the detailed support arrangements is required before any public announcement of the seminar is made.

***Reporting/Distribution/Documentation***—CERI will maintain a calendar of all seminars held by ORD. This information will be catalogued and filed for future reference at CERI. Once a seminar is completed, CERI will work with the seminar organizers to produce a documenting report. This document will either be developed into a Project Report or left as a short summary—as determined by the Technical Information Manager in consultation with CERI.

## *Workshops/ Reports*

### *Description*

**Workshops are less formal versions of seminars intended to foster a high level of interaction, on a particular scientific issue, among the participants. The report which results from a workshop may be a highly condensed synopsis of workshop activities or, if the issues and activities warrant it, a detailed technical report.**

***Initiation***—Any researcher may propose a workshop. The initiator will prepare a proposed agenda, list of speakers and attendees, workshop objectives and all anticipated costs for holding the workshop and producing the documenting report. Workshops may also be initiated through requests from the regions or program offices. The proposal will then be submitted to the appropriate Laboratory Director and Technical Information Manager.

***Review/Approval***—It is ORD policy that all workshops be reviewed and approved by the appropriate Laboratory Director or DAA. He or she must ensure that the workshop is justified. This responsibility may be delegated to the Technical Information Manager. Once the workshop is approved, the TIM will inform CERI within one week.

***Preparation***—Once a proposed workshop has been approved by the Laboratory Director or DAA, the substantive development (defining the scope, securing the best available speakers, etc.) is the responsibility of the initiator, with CERI available in a consulting role. Every workshop must result in the production of a report, and funding must be set aside for this purpose. Format for preparation and production will be developed by CERI in coordination with the Technical Information Manager.

***Quality Control***—Technical quality control and all other aspects of the workshop are the responsibility of the initiator CERI will provide support contractors, where requested by the TIM, on an at-cost basis. The Technical Information Manager monitors the project and assures that the various responsibilities are smoothly integrated. Where several ORD Laboratories are involved in producing a workshop, either a lead Technical Information Manager or lead EPA scientist will be selected or CERI will coordinate the project

***Reporting/Distribution/Documentation***—CERI will maintain a calendar of all workshops sponsored by ORD. This information will be catalogued and filed for future reference at CERI. Once a workshop is completed, CERI will work with the workshop organizers to produce a documenting report.

## *Technical Conferences and Proceedings*

### *Description*

**Conferences are the most costly form of communication for ORD, so a great deal of thought must go into the decision as to whether a conference is the best way to reach the targeted audience. Despite their high cost, they have the advantage of live presentation of the most recent results and findings and face-to-face interchange among the experts in a particular field of specialization.**

**Two items of ORD policy are relevant here concerning conferences. First, because of the cost and high visibility, CERI will be notified as soon as a conference is proposed, and either CERI staff or a CERI support contractor will assist in handling the detailed support activities associated with the conference. Other support arrangements may be developed, but these must be negotiated on a case-by-case basis with CERI. A review of the final support plan should, however, be conducted by the CERI conference specialist(s). Secondly, proceedings will be produced from every ORD conference and submitted to ORPM so that the information produced will be available. These proceedings will, in most cases, include all of the papers presented at the conference plus a short summary of conference discussions.**

***Review/Approval***—Proposed technical conferences are to be reviewed by the Laboratory Director or DAA. This individual must ensure that the conference is justified on its technical merit as the most cost-effective means of transferring key scientific data to the proposed audience. Authority to approve such conferences may be delegated to the Technical Information Manager or Technical Information Program Manager

***Initiation***—Any researcher or group of researchers may initate a proposed conference when that particular medium seems to be the most cost-effective means of reaching the appropriate technical community. The initiator will prepare a proposed agenda, list of speakers and attendees, conference objectives and all anticipated costs for holding the conference and producing the proceedings, including cost of speakers, editing and preparation of camera copy, as well as printing. The latter support costs may be obtained from CERI through the Technical Information Manager The proposal will then be submitted to the Laboratory Director or DAA, whichever is the most immediate level of supervision.

***Preparation***—Once a proposed conference has been approved by the Laboratory Director or DAA, the substantive development (defining the scope, securing the best available outside ORD speakers, etc.) is the responsibility of the initiator, with CERI available in a consulting role The support requirements (site selection, displays, audio-visual, proceedings recording and preparation, etc.) will in all cases be accomplished with CERI or CERI contractor support. Every conference must result in the production of a proceedings, and funding must be set aside for this purpose Format for preparation and production will be provided by CERI.

***Quality Control***—Technical quality control is the responsibility of the initiator. CERI is involved with the presentation of every conference sponsored by an ORD unit. This means that CERI will assist in selection of the most effective site for the conference, the best displays and graphic presentations, the best audio-visual support, etc. CERI will provide support contractors, where necessary, on an at-cost basis.

***Reporting/Distribution/Documentation***—CERI will be notified of the agenda, dates, and other appropriate information once a conference is approved. This information will be catalogued and filed for future reference at CERI. Once a conference is completed, CERI staff or a CERI contractor will work with the conference organizers and the Technical Information Manager to produce the proceedings, which will become the permanent record. The proper documentation of a conference is ultimately the responsibility of the initiator. Copies of the proceedings will be made available through NTIS

## *Non-technical or General Conferences*

### *Description*

**General conferences cover broad environmental issues rather than specialized technical subsets of environmental research and development. An example is the annual Energy/Environment conferences. On the other hand, an example of a conference which normally would not fit this category is one addressing the latest techniques for remote sensing of water pollution.**

**A conference which has broad scope and is likely to attract the attention of policy/decision makers or the interested public should advertise to inform that audience of the forthcoming event. Announcements should be placed in wide-audience magazine/journals, and flyers should be sent to the policy/decision makers' mailing list maintained by CERI. Such conferences will normally entail the presentation of prepared papers in a formal and highly structured context. They will produce a proceedings that includes all of the presentations, papers and a summary of conference discussions. The proceedings will be published by EPA through CERI and will be made available through NTIS.**

***Initiation***—Any researcher or group of researchers may propose a general conference when that particular medium seems to be the most cost-effective means of reaching the target community The initiator will prepare a proposed agenda, list of speakers and attendees, identify conference objectives and estimate costs for holding the conference and producing the proceedings, including cost of speakers, editing and preparation of proceedings, as well as printing Estimated costs for the latter support activities will be obtained from CERI through the Technical Information Manager The proposal will then be submitted to the appropriate DAA through the Laboratory Director

***Review/Approval***—It is ORD policy that all general conferences be reviewed and approved by the appropriate DAA The DAA must ensure that the conference is justified in terms of scientific substance, appropriateness with regard to other communications media, proper audience coverage, appropriateness in terms of desired visibility, and overall effectiveness. This authority may be delegated to the DAA's Technical Information Program Manager.

***Preparation***—Once a proposed conference has been approved by the DAA, the substantive development (defining the scope, securing the best available outside

ORD speakers, etc.) is the responsibility of the initiator, with CERI and TIO available in a consulting role. The support aspects of the conference (site selection displays, audio-visual, proceedings, recording and preparation, etc.) will be accomplished with CERI or CERI contractor support Every conference must result in the production of a proceedings and funding must be set aside for this purpose. Format for preparation and production will be provided by CERI or TIO. Because of the sensitivity of some of these issues, close coordination will be required between the Technical Information Manager and TIO/CERI.

***Quality Control***—Technical quality control is the responsiblity of the initiator. CERI is involved with the presentation of every conference sponsored by an ORD unit. This means that CERI will assist in selection of the most effective site for the conference, the best displays and graphic presentations, the best audio-visual support, etc CERI will provide support contractors, where necessary, on an at-cost basis.

***Reporting/Distribution/Documentation***—CERI will be notified of the agenda, dates, and other appropriate information once a conference is approved. This information will be filed at CERI. Once a conference is completed, TIO/CERI staff or a TIO/CERI contractor will work with the conference organizers to produce the proceedings, which will become the permanent record. Copies of the proceedings will be made available through NTIS and will be published by EPA through CERI.

## *Speeches/ Papers*

***Description***

**The term "speech" is used here to refer only to *formal* presentations made before scientific/technical peer groups or other major organizations, normally by invitation. Speeches, as they relate to ORD's technical information guidelines, include only those formal presentations which are presented from a written text.**

***Initiation***—Anyone in ORD may present a speech.

***Review/Approval***—Prior approval must be obtained from the initiator's first-line supervisor and the Technical Information Manager must be informed, in writing, of the planned speech topic once it is approved.

***Preparation***—The speaker is responsible for preparation of his or her own speech. The Technical Information Manager should provide whatever assistance possible.

***Quality Control***—The speaker will be solely responsible for the content of his or her speech. The first-line supervisor and the Technical Information Manager must be provided with copies of the text before it is presented.

***Reporting/Distribution/Documentation***—The Technical Information Manager will forward a copy of the speech to CERI, where it will be catalogued for future reference.

## *Technical Newsletters*

***Description***

**Newsletters are designed to keep the research and technical community abreast of current research status, results, meetings, and publications, on a**

**routine basis, normally either monthly or quarterly, depending on the volume of significant activity at the laboratory or office. They will range from one to no more than eight pages 8-1/2" by 11", in one color with basic graphics, where appropriate.**

***Initiation***—Each office and laboratory may produce a newsletter. All researchers may contribute information to the newsletter. If distribution of the newsletter is to exceed 500 copies per issue, production must be coordinated with CERI

***Review/Approval***—The Laboratory Director or DAA has final review and approval authority for newsletters. The Laboratory Director will, on an annual basis, conduct a review of all newsletters produced by his/her organization and cancel those which are not deemed to be cost-effective. Approved newsletters will become part of that organization's annual technical information plan to be reviewed by the DAA These authorities may be delegated to the Technical Information Manager or Technical Information Program Manager, respectively.

***Preparation***—The Laboratory Director or DAA will appoint one or more researchers to serve as editors. The editors will solicit information and articles from the staff and prepare the newsletter in a specified ORD newsletter format. CERI will be available to assist in the newsletter preparation on request.

***Quality Control***—CERI may assist in preparation, style, and format review if distribution exceeds 500 copies. In addition the organization's Technical Information Manager or Technical Information Program Manager will review each newsletter for accuracy prior to distribution.

***Reporting/Distribution/Documentation***—Copies of all research newsletters will be sent to CERI for cataloguing Should the distribution exceed 500 copies per issue, responsibility for printing and distribuiton will lie with CERI or with a CERI-approved local laboratory mechanism The originating office will pay all printing costs.

## *Published Papers/Book Articles*

### *Description*

**Published papers/book articles allow researchers to communicate at the peer level and attain visibility and credibility for EPA.**

**As part of ORD policy, abstracts and copies of papers are to be sent to CERI when a paper or a book article is submitted, and reprints of the paper are to be sent when the paper has been delivered and published. In this way the information will be available for reference for ORD's use and publicity.**

***Initiation***—Anyone in ORD may initiate a paper or article to be published externally to EPA.

***Review/Approval***—Laboratory Directors, DAA's or their delegees give final review and approval. Normally this review and approval will involve only the initiator's first line supervisor and the Technical Information Manager.

***Preparation***—On approval of the supervisor, the initiator may produce the paper.

***Quality Control***—The draft will be reviewed for technical content, consistent with Laboratory or ORD peer-review policy, then forwarded, together with any comments, to the Laboratory Director, DAA or his or her delegee as described above for review of content, compatibility with current policy and programs, and final approval.

***Reporting/Distribution/Documentation***—When a draft published paper has been approved for external publication, it will be sent to CERI by the Technical Information Manager for reference, pending publication. When reprints are available, one should be submitted to CERI.

## *User Group Publications*

### *Description*

**User Group Publications are intended to reach specific users of environmental information (designers, engineeers, industrial pollution specialists) by exploiting the existing publications upon which these groups rely for technical information. Via special arrangements with the appropriate professional societies and specialty publications, ORD-generated information will be distributed via existing periodicals, newsletters, etc. in their normal formats.**

***Initiation***—Anyone in ORD may propose the production of information aimed at a specific user group. Approval must be obtained from the individual's supervisor and the appropriate Technical Information Manager.

***Review/Approval***—Normal organizational project clearance mechanisms apply, including peer-review mechanisms if the proposed publication is of a highly technical nature. The project initiator will ultimately be responsible for assuring the accuracy and completeness of the document, and the appropriate Laboratory Director must approve its final submission/distribution. This authority may be delegated to the Technical Information Manager.

***Preparation***—The initiator is responsible for preparation. CERI/TIO will provide any support (to be reimbursed for any extramural expenses) required by the initiator to produce the report. CERI/TIO will also encourage this type of activity by developing contacts within the user group publishing community and actively soliciting authors from within ORD.

***Quality Control***—The initiator is responsible for all phases of quality control. CERI/TIO may provide support to the extent possible and necessary

***Reporting/Distribution/Documentation***—The final approved version of the report will be submitted to the appropriate user group(s)

## *Special Products*

### *Description*

**The special products category includes all technical reports not otherwise covered within this Policy and Guide. At present, only the bibliography and EPA Program Guide are included in this category.**

***Initiation***—Laboratory or office directors, Deputy Assistant Administrators or the directors of TIO or CERI may propose the production of special products. All such products must be approved, in writing, by the Director of ORPM before work may begin

***Review/Approval***—The initiator is fully responsible for the content of the special product. The Director of ORPM must approve of the document prior to publication.

***Preparation***—The initiator will provide a draft of the content of the special product to TIO/CERI. After reviewing the draft to assure its adequacy, TIO/CERI will edit, format and publish the product. Any extramural expenses plus appropriate internal charges will be levied against the initiator

***Quality Control***—The initiator is fully responsible for the content of the product TIO/CERI is responsible for its format, presentation and publication.

***Reporting/Distribution/Documentation***—The final distribution of the product will be agreed upon by the initiator and TIO/CERI The Director of ORPM will approve this distribution.

# Applications Guides

As a group, these publications are the most practical of our information tools. They are directly useful at the most operational level in environmental research or pollution control work. They may be instructional guides which detail proper monitoring techniques or sampling methodologies, or they may be inclusive descriptions of new and applicable technologies, models, or processes.

***User's Guides*** explain or describe how to employ an ORD-developed model or process and assist the reader in exploiting existing products or techniques.

***Design Manuals*** are inclusive descriptions of new technologies or methodologies and are used by the reader in creating, constructing, or maintaining a product or process.

***Handbooks*** are particular references, containing a wide range of information on a particular subject area, for use at either the desk or the bench.

The following matrix indicates the primary audiences of application guides.

| | Audience | | | | |
|---|---|---|---|---|---|
| Information Products | Regulatory | Scientific & Technical | Technical Applications | Interested Public | Policy/Decision Makers |
| User's Guides | X | | X | | |
| Design Manuals | X | | X | | |
| Handbooks | X | X | X | | |

## *User's Guides*

### *Definition*

**The User's Guide explains and describes an ORD-developed model or process. It is often a dynamic document, requiring periodic updates to incorporate new developments or to correct old errors. It is necessary if potential users are to be able to exploit off-the-shelf products.**

***Initiation***—User's Guides will be initiated in response to DAA recommendations or to the recommendations of research committees, regions, program officers or researchers. The major responsibility for following through on a proposed User's Guide is shared by CERI and the appropriate laboratory Technical Information Manager.

***Review/Approval***—Once the technical experts and CERI have approved the User's Guide the final review and signoff approval is the responsibility of the Laboratory Director. This responsibility may be delegated to the laboratory's Technical Information Manager.

***Preparation***—In all cases, once the funding for the proposed User's Guide has been approved by the requesting/sponsoring organization(s), the technically expert researchers will coordinate all phases of preparation with CERI. CERI will provide or coordinate technical writing and editing, graphics, photography, typesetting and layout.

***Quality Control***—The Laboratory Director will designate the technical experts in the subject matter of the guide to perform technical review of the final draft. It is very important that the most expert researchers in ORD perform this task, since the completed guide will, in effect, be the Agency's final word on the subject. CERI will review the style and format of the guide.

***Reporting/Distribution/Documentation***—Camera-ready copy will normally be produced by a CERI contractor. CERI will arrange for printing and distribution in accordance with the laboratory's and requesting/sponsoring office's recommendations. CERI also will arrange for the guide to be sent to NTIS and will arrange for whatever publicity is needed to assure the saturation of the intended audience(s).

## *Design Manuals*

### *Description*

**Design Manuals are comprehensive, specific descriptions of new technology or methodology applicable to a particular environmental problem. Design manuals are intended to guide the user through major steps of the process of creating, constructing and/or maintaining a particular technology or technique. In most cases, these works will require input from several laboratories, other ORD offices and EPA program offices. As such, they will normally require central management by CERI to ensure timely and accurate production.**

***Initiation***—Manuals will be initiated in response to DAA recommendations, or to recommendations of research committees, regions, program officers or researchers. The major responsibility for following through on a proposed manual is shared by CERI and the appropriate laboratory Technical Information Manager.

***Review/Approval***—Once the technical experts have completed their work, CERI will obtain technical approval from the cognizant Laboratory Directors or their Technical Information Managers.

***Preparation***—In all cases, once the funding for the proposed manual has been approved by the requesting/sponsoring organization(s), the technically expert researchers will coordinate all phases of preparation with CERI. CERI will provide or coordinate technical writing and editing, graphics, photography, typesetting and layout.

***Quality Control***—The Laboratory Director(s), DAA(s) and Program Offices will designate the technical experts in the subject matter of the manual to perform technical review of the final draft. It is crucial that the most expert research engineers in ORD perform this task since the completed manual will, in effect, be the Agency's final word on the subject. CERI will review the style and format of the manual.

***Reporting/Distribution/Documentation***—Camera-ready copy of the manual will normally be produced by a CERI contractor. CERI will arrange for printing and distribution in accordance with the laboratory's and requesting/sponsoring office's recommendations. CERI also will arrange for the manual to be sent to

NTIS and will arrange for whatever publicity is needed to assure the saturation of the intended audience(s).

## Handbooks

### *Description*

**Handbooks are reference tools which may be used either at the desk or the bench level. They are broad collections of information, statistics, data and techniques which are proven both accurate and highly relevant to the subject area. Handbooks require a great deal of assistance and review to be comprehensive, and are intended to retain both their relevance and utility during years of use.**

***Initiation***—Handbooks will be initiated in response to DAA recommendations, or to recommendations of research committees, regions, program officers or researchers The major responsibility for following through on a proposed handbook is shared by CERI and the appropriate laboratory Technical Information Manager

***Review/Approval***—Once the technical experts and CERI have approved the handbook, the final review and signoff approval is the responsibility of the Laboratory Director. This responsibility may be delegated to the Laboratory's Technical Information Manager.

***Preparation***—In all cases, once the funding for the proposed handbook has been approved by the requesting/sponsoring organization(s), the technically expert researchers will coordinate all phases of preparation with CERI. CERI will provide or coordinate technical writing and editing, graphics, photography, typesetting and layout.

***Quality Control***—The Laboratory Director will designate the technical experts in the subject matter of the handbook to perform technical review of the final draft. It is very important that the most expert researchers in ORD perform this task since the completed manual will, in effect, be the Agency's final word on the subject. CERI will review the style and format of the handbook.

***Reporting/Distribution/Documentation***—Camera-ready copy of the handbook will normally be produced by a CERI contractor. CERI will arrange for printing and distribution in accordance with the laboratory's and requesting/sponsoring office's recommendations CERI also will arrange for the handbook to be sent to NTIS and will provide whatever publicity is necessary to assure the saturation of the intended audience(s).

# Summaries/ Syntheses

Reaching beyond our narrow scientific and technical audiences requires media such as those presented in this section. Carefully edited and formatted for efficient information transfer, summaries/syntheses are the most broadly distributed and highly visible documents produced by ORD.

***Research Summaries*** are introductions to ORD's on-going research. They address specific environmental issues or problems.

***Decision Series*** documents are sophisticated, policy-oriented summaries of the latest information available to us on a particular environmental research issue or problem.

***Bulletins*** are short technical summaries of major advances in ORD research produced on a very timely basis

***Program Summaries/Plans*** present a specific program, its mission, mandate, organization and plans, in a condensed format for both internal management and external review.

***Technology Transfer Reports*** are short, attractive and effective presentations of scientific advances for communication with the technical applications (user) community

***Outlook/Highlights*** reports are EPA's five-year research plan (Outlook) as required by Congress and the summary of the major research accomplishments of the previous year (Highlights).

***Organizational Descriptions*** present the roles, capabilities and key activity areas of major organizational or programmatic subsets of ORD.

| | Audience | | | | |
|---|---|---|---|---|---|
| Information Products | Regulatory | Scientific & Technical | Technical Applications | Interested Public | Policy/Decision Makers |
| Research Summaries | | | | X | X |
| Decision Series | | | | X | X |
| Bulletins | X | | | | |
| Program Summaries/ Plans | | | | X | X |
| Technology Transfer Reports | | | X | | |
| Outlook/Highlights | | | | X | X |
| Organizational Descriptions | | | | X | |

## Research Summaries

### Description

**Research Summaries explain, in semi-technical terms, ORD's responses to a major area of environmental concern. They are issue- or problem-oriented rather than program-oriented and contain some information on the background of the problems or issue addressed. Their main focus, however, is on the major projects that ORD is conducting to address the topic. The emphasis is on what is happening now, not on what was accomplished in the past or is planned for the future. Ranging from 16 to 32 pages in length, Research Summaries are of a fixed, small-sized format and are intended to be easily updated as necessary.**

***Initiation***—Research Summary topics may be proposed by anyone in ORD All reports, however, are initiated and carried to completion by the Technical Information Office (TIO) at headquarters.

***Review/Approval***—The main organization responsible for ORD's Research into the proposed topic (normally DAA's, Laboratory Directors and/or Research Committees) provides the required resources. Final review and approval prior to distribution of a Research Summary lies with the highest appropriate policy level—normally the AA, Office Director and/or DAA.

***Preparation***—Each draft of a Reseach Summary will be produced by TIO with contractual support as necessary. TIO will manage the review process. The report will be produced under the continuing review of, and with consultation from, all ORD individuals who are expert in and/or responsible for the various facets of the issue or problem being addressed.

***Quality Control***—Research Summary reports will be reviewed for technical accuracy by all appropriate ORD personnel. The Technical Information Office will be responsible for style, format layout, graphic artwork and photography.

***Reporting/Distribution/Documentation***—Research Summaries will be among the most broadly distributed ORD reports, and their use by the EPA Regions, the regulatory offices and EPA's Office of Public Awareness will be strongly encouraged. They will be printed, published and distributed by CERI and will be made available via NTIS and the GPO.

## Decision Series

### Description

**Decision Series reports are the most carefully produced, edited and reviewed of ORD's semi-technical reports. They address major environmental issues and concerns, presenting a concise and easily understood statement of the facts as ORD knows them. These documents normally are very important, from a policy perspective, and often serve as companion pieces to Research Summaries and/or Program Summaries/Plans. The Decision Series documents are normally 16 to 32 pages in length, and include graphically sophisticated presentations of information. These documents may be printed in full color if this is absolutely essential for communicating complex concepts.**

***Initiation***—Topics (issues or problems) for Decision Series documents may be proposed by anyone in ORD. The reports are initiated by the Technical Information Office (TIO) within ORPM.

***Review/Approval***—The major organizations responsible for investigating the issue addressed by the proposed Decision Series document will be provided by TIO with an outline and estimate of costs. If these organization(s) (normally Deputy Assistant Administrators, Laboratory or Office Directors and/or Research Committees) provide the required resources, the Decision Series report will be produced. Final review and approval prior to distribution of a Decision Series report lies with the highest appropriate policy level—normally the AA, office Director and/or DAA.

***Preparation***—Each draft of the document will be produced, from materials supplied by the appropriate ORD individuals, by TIO with contractual support as necessary. TIO will manage the review *process.* The report will be produced under the continuing reviews of, and in consultation with, all ORD personnel responsible for, and/or expert in, the various aspects of the problem or issue being addressed.

***Quality Control***—Decision Series reports will be reviewed for technical accuracy by all appropriate ORD personnel and other EPA personnel. In addition, most of these reports will be reviewed by a nationally or internationally recognized expert in the field. The ORPM Technical Information Office will be responsible for style, format, layout, graphics and photography.

***Reporting/Distribution/Documentation***—Decision Series documents will be among the most broadly distributed of ORD reports, and their use by the EPA Regions, regulatory offices and Office of Public Awareness will be strongly encouraged. They will be printed, published and distributed by CERI, and will be made available through NTIS and GPO

## *Bulletins*

### *Description*

**There are occasions when it is desirable to convey information rapidly to personnel in either the headquarters or regional offices. The traditional method used in this situation is the internal memorandum. Although this is still the preferred approach when large quantities of information must be conveyed, it is recommended that a bulletin be employed whenever a concise summary and follow-up reference are more desirable. The only bulletin currently in use is the Technigram. Technigrams function as EPA's *only* technical research press release.**

***Initiation***—Anyone in ORD may initiate a bulletin. The initiator should prepare a draft of the proposed bulletin and forward it to CERI through whatever internal lab or office channels his or her organization may have and through the Technical Information Manager.

***Review/Approval***—All bulletins will be approved by the Laboratory Director or DAA This approval may be delegated to the Technical Information Manager or Technical Information Program Manager, respectively.

***Preparation***—Preparation of the initial draft is the responsibility of the initiator. CERI will provide editorial, production, and distribution support.

***Quality Control***—Technical quality control is the responsibility of the initiator. CERI is responsible for production.

***Reporting/Disbribution/Documentation***—The initiator will provide a desired distribution list. Distribution will include internal EPA audiences as well as a list of

key contacts within the relevant media and business press communities. CERI will handle distribution and retain master copies.

## *Program Summaries/ Plans*

### *Description*

**Program Summaries/Plans are introductions to a particular major research program. For both internal use as a unifying document and for external use as a detailed introduction, these documents are normally 12 to 32 pages in length. Program Summaries/Plans may be produced as companion documents to Research Summaries or Decision Series documents, without the sophisticated presentations and graphics of the latter two documents. Program Summaries/Plans focus on organizational issues, mandate, roles, goals and plans with minimal discussion of the background or details of the environmental issues addressed by the program.**

***Initiation***—Any program manager may propose a program summary, but production will not begin until an outline is developed which is acceptable to the program manager, the Technical Information Manager and the Director of ORPM.

***Review/Approval***—A Program Summary/Plan will normally begin with a draft produced by the program manager and/or Technical Information Manager. All subsequent drafts will be developed under the review of, and in cooperation with, these individuals, who will ultimately be responsible for the content of the report. Final approval for distribution of the report must come from the next higher level of management

***Preparation***—All information required to prepare a Program Summary/Plan will be provided by the Program Manager and/or Technical Information Manager. CERI and TIO will normally handle all editing, layout, graphics and production, in close cooperation with the Technical Information Manager.

***Quality Control***—The quality and accuracy of the content of the reports are the responsibility of the Technical Information Manager. The quality of the design, layout, graphics, etc. is CERI/TIO's responsibility. CERI/TIO will be reimbursed by the subject program for any extramural expenses incurred, including printing

***Reporting/Distribution/Documentation***—CERI will handle printing and distribution of the report to the audience(s) specified by the Program Manager and Technical Information Manager. Copies will also be submitted to NTIS.

## *Technology Transfer Reports*

### *Description*

**Technology Transfer Reports have long been one of ORD's most popular forms of communication with the technical applications community. Generally, these reports are summaries of significant control technology developments which may be covered in far greater detail in handbooks and manuals. These reports are especially suited for providing their audience with a succinct, accurate overview of a complex subject.**

***Initiation***—Technology Transfer Reports are initiated on the recommendation of the staff at CERI. Individuals within a laboratory or DAA's office, and especially the

Technical Information Managers, are responsible for notifying the CERI staff when there is a technology development that merits reporting in the technology transfer series

***Review/Approval***—The final review and signoff approval is the responsibility of the Director of CERI This responsibility will not be delegated

***Preparation***—CERI is responsible for the preparation of all Technology Transfer reports. The Director of CERI will arrange for his staff to work closely with the cognizant personnel in the laboratories and offices as the text of the report is drafted and appropriate artwork and photography is developed

***Quality Control***—In addition to review by CERI staff, drafts of capsule reports will be reviewed by at least two technical experts in the laboratories or offices The Director of CERI will make arrangements for this review. CERI will have an internal quality control review of both the technical quality and the style and format

***Reporting/Distribution/Documentation***—CERI will print and distribute the reports according to the mailing list for the subject matter of the report. Copies will also be sent to NTIS, and the report will be published by CERI to assure that it reaches the intended audience

## *Outlook/ Highlights*

### *Description*

**The *Research Outlook* is a yearly report required by Congress. It sets forth, in some detail, EPA's future plans over approximately a 5-year horizon. The *Research Highlights* is the companion document to the *Research Outlook.* It presents, in summary form, the major achievements of EPA's research program over the preceding year, and is the only such summary produced by ORD.**

***Initiation***—Both reports are initiated by ORD Headquarters Information for the *Research Highlights* is solicited by the Technical Information Office from throughout ORD A major source of information for this report is the quarterly Achievement (highlights/ bullets) reports required by the ORD Management Report Guide

***Review/Approval***—Review and approval of these reports is by the Assistant Administrator for Research and Development.

***Preparation***—While ORPM and the Research Committees are the focus of the *Research Outlook* preparation, virtually all program managers in ORD provide inputs. Each year a specific lead author is assigned by ORPM to assimilate the inputs and prepare the text for the *Research Outlook.* Graphics, photography, layout and other production functions, as well as the editing of the Research Highlights, are the responsibility of the Technical Information Office.

***Quality Control***—Each program manager will review the draft of his or her section of the Outlook/Highlights reports for technical accuracy. TIO is responsible for the production of these reports

***Reporting/Distribution/Documentation***—Outlook/Highlights reports will be printed through CERI. Copies will be distributed to the interested public and policy/decision makers. CERI will forward copies to NTIS, and the reports will be widely publicized.

## *Organizational Descriptions*

### *Description*

**Organizational Descriptions are short (16 pages or less) summaries of the major goals, activities, plans and/or accomplishments of a particular organizational or programmatic subset of ORD. They are written in less technical language than any other ORD report with the possible exception of the** *Research Highlights.* **In appearance, these pamphlets are attractive, usually with one or two colors of ink employed in printing. Their main purpose is to help clarify, for both internal and external audiences, the mission and role of a particular organization or program.**

***Initiation***—Organization descriptions may be proposed by the head of any major ORD organization (office, laboratory or committee) Because production of such reports is to be limited as a matter of ORD policy, all projects to produce organizational descriptions require the prior approval of the next higher managerial level before they are proposed to ORPM Approval by the Director of ORPM is also required If the project is approved by all appropriate management, TIO/CERI will prepare an outline of the proposed report and a resource estimate When funding is provided by the subject organization, the project will be initiated

***Review/Approval***—In most cases, the subject organization or program will produce an initial draft of the report and will provide review and approval (via appropriate Technical Information Manager and Public Information Officer) of any subsequent drafts. The head of the subject organization (laboratory, office, committee or program) has final review/approval authority for organizational description documents.

***Preparation***—TIO/CERI is responsible for producing subsequent drafts from the initial draft submitted by the subject organization. The head of the subject organization, or his or her delegee, will be required to provide continuing review and consultation for the duration of the project In some cases, subsequent drafts may be produced by the subject organization, with TIO/CERI 's concurrence and consultation.

***Quality Control***—Organizational descriptions will be reviewed for accuracy and adequacy by the head of the subject organization or his or her delegee. TIO/CERI will be responsible for style, format, layout, graphic artwork and photography

***Reporting/Distribution/Documentation***—Organizational descriptions will be printed and published by CERI but will *not* be made available to NTIS Their distribution will generally be handled by the subject organization and its parent group

## Response Reports

These reports answer requests for highly particularized technical information. Their audience is often small and clearly defined, and their formats are specifically tailored so that the information is easily assimilated by the audience. Although the technical information contained in these reports is narrowly focused, the reports themselves often have strong policy as well as scientific implications. As such, they must contain the most considered scientific and technical positions of researchers in the pertinent field of study The subject matter of these reports ranges from evaluations of control techniques to assessments of the potential effects of pollutants

***Problem-oriented Reports*** are responses to immediate needs for highly focused scientific or technical information in response to a particular problem

***Criteria/Assessment Documents*** distill out all that is known or unknown about a specific pollutant so as to provide a scientific foundation for standard setting

| | Audience | | | | |
|---|---|---|---|---|---|
| Information Products | Regulatory | Scientific & Technical | Technical Applications | Interested Public | Policy/Decision Makers |
| Problem-oriented Reports | X | | X | | X |
| Criteria/Assessment Documents | X | X | | | |

## *Problem-oriented Reports*

### *Description*

**Problem-oriented reports are produced when there is an immediate need for a written report in response to an environmental emergency or a politically sensitive issue for the Agency. They are normally produced under very severe time constraints, and require a good deal of teamwork and cooperation to be successful. Such reports are often published in small numbers and may be reworked at a more leisurely pace into a report more suitable for broad distribution.**

***Initiation***—Problem-oriented Reports will be initiated either through the appropriate DAA or through the AA

***Review/Approval***—Review/Approval will take place at the DAA level, in cases where technical clearance alone will suffice, or at the AA level, when broad issues of Agency policy are involved

***Preparation***—The Laboratory Director will designate technical experts in subject matter to perform all writing and/or technical review. It is critical that the best qualified researchers in ORD be designated, since the completed report will, in effect, be the Agency's most up-to-date word on the subject. CERI will provide editing and final production, in close cooperation with the Technical Information Manager(s).

***Quality Control***—The Laboratory Director will appoint a panel of experts to review the final draft. CERI will review the style and format

***Reporting/Distribution/Documentation***—CERI will arrange for printing and distribution in accordance with the requesting/sponsoring office's instructions. CERI will also arrange to have the report sent to NTIS.

## *Criteria/ Assessment Documents*

### *Description*

**Criteria/Assessment Documents are certainly one of ORD's principal products. They directly support the primary mission of the Agency. These documents contain a distillation of all that is currently known and unknown about a particular pollutant. It is partially on the basis of this information that the Administrator decides at what level to set standards for regulating a pollutant.**

**In ORD, special groups—the Environmental Criteria and Assessment Offices (ECAO's)—have been established to prepare these reports. In addition, the ECAO's are able to call upon the expertise of other ORD researchers and on the scientific community at large.**

***Initiation***—Criteria/Assessment Documents are initiated when the determination has been made that a specific contaminant is a criteria pollutant

***Review/Approval***—Final review and sign-off approval for Criteria/Assessment Documents is the responsibility of the Assistant Administrator of ORD

***Preparation***—The ECAO's are responsible for preparation of Criteria/Assessment Documents with the support of the laboratories and offices. CERI will support the production of the final document

***Quality Control***—Technical quality control includes technical review by experts within and outside of EPA as arranged by the directors of the ECAO's. The document production staff at CERI will review the camera-ready copy for style, format, graphics, and layout, or will accept the draft of the document in paper or typeset-compatible form and will provide all design, typesetting, layout and production support. Extramural costs, if any, will be reimbursed by the appropriate ECAO

***Reporting/Distribution/Documentation***—Camera-ready copy of the document will either be sent to or produced by CERI for printing, distribution, cataloguing and forwarding of copies to NTIS.

# Audio-Visual

## *Films and Videotapes*

On some occasions, films and videotapes are a cost-effective way of communicating with an audience. While the film and videotape media are not recommended for widespread use in ORD, they are useful in some limited applications where it can be shown that they are superior to other forms of communications. All use of films and videotapes will be coordinated through CERI for quality control

***Initiation***—Any researcher may initiate a proposed film or videotape when that particular medium seems to be the most effective means of reaching the audience. The initiator will prepare a justification which includes expected audience and estimated cost. Estimated cost may be obtained from CERI. The justification will then be submitted to the Laboratory Director through the Technical Information Manager

***Review/Approval***—The Laboratory Director will review and approve all justifications and will have final authority to review and approve release. The laboratory will provide the necessary funding

***Preparation***—Once approved, a film or videotape is to be prepared, in most cases, through CERI CERI will assist in acquiring either in-house EPA or contractor support, and will advise the initiator on the presentation aspects of the production

***Quality Control***—It is the responsibility of the initiator to verify the technical accuracy of the material presented CERI information specialists will review the film or videotape for style, format, and rhetorical effectiveness

***Reporting/Distribution/Documentation***—The researchers will prepare a description of the film or videotape and will catalogue it with CERI for future reference. Distribution of the film will be in accordance with plans developed by the initiator, the TIM, CERI and, if appropriate, the Public Affairs Officer

| | Audience | | | | |
|---|---|---|---|---|---|
| Information Products | Regulatory | Scientific & Technical | Technical Applications | Interested Public | Policy/Decision Makers |
| Films | | | X | X | X |
| Videotapes | | | X | X | X |



U S GOVERNMENT PRINTING OFFICE 1980-657-146/0501 Region No. 5-11