DOE Uniform Contractor Reporting System

Volume II:
Grants and Cooperative Agreements

MASTER

U.S. DEPARTMENT OF ENERGY
Office of the Controller
Office of Program Management Support

Preliminary Release
October 1979

Guidelines

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**U.S. DEPARTMENT OF ENERGY
Office of the Controller
Office of Program Management Support
Washington, D.C. 20585**

MASTER

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October 1979

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Part I. Introduction

A. Purpose/Scope

Volume II of the Uniform Contractor Reporting System (UCRS) is designed to help those who receive and administer Federal assistance to acquire useful performance information. The objective is to provide the recipients with a standard means of communicating their progress and results to the Department of Energy (DOE) so that DOE program managers can determine the effectiveness of Federal programs.

An allowance for flexibility has been built into the system so that the amount of performance information acquired is proportional to the activity performed. This system includes some standardized planning and reporting forms intended for selective application, depending on the nature of the effort. The selection of the appropriate forms, the frequency of their use, and the amount of detail requested will vary in consideration of program objectives, amount of funding, the intended recipients, and the type of contractual arrangement. Discretion should be used by DOE program managers in report selection to keep administrative burdens to a minimum.

For purposes of illustration, Volume II presents a hypothetical program making use of the planning and reporting forms. Appendix C contains additional examples of the planning and performance reporting forms.

B. Key Definitions

Appendix A contains a more complete set of definitions.

1. *Cooperative agreements*: The legal instrument between the Federal Government and a state government, university, or other recipient whereby the Federal government provides money, property, services or anything of value to the recipient to accomplish a public purpose. This instrument permits substantial involvement between DOE and the recipient during the performance of the effort.

2. *Grants*: The legal instrument between the Federal government and a state government, university, or other recipient whereby the Federal government provides money, property, services, or anything of value to the recipient in order to accomplish a public purpose authorized by Federal statute. A grant is characterized by a lack of substantial involvement between DOE and the recipient during the performance of the effort.

3. *Federal Assistance*: A general term used in the Volume II Guidelines to describe both grants and cooperative agreements.

C. Procedures Not Covered by Volume II

This volume contains information only on performance reporting. Federal assistance preapplication, application, and payment procedures are not discussed. Information concerning the forms used by recipients during the application and payment processes can be found in Federal circulars. The matrix shown in Appendix D lists DOE assistance programs (as of 12/1/78) and references related Federal regulations.

HOW THE UCRS VOLUME II GUIDELINES WORK

FIGURE 1

D. How the UCRS Volume II Guidelines Work

1. Volume II contains the instructions for completing performance planning and reporting forms. Examples of all forms are also provided.

2. The Federal Assistance Reporting Checklist specifies the particular plans and reports to be used for the effort. Any special reporting requirements specified in program legislation, DOE regulations, and/or DOE guidance will also be identified on the Checklist.

3. The planning phase usually begins with a Management Plan which describes how the program or project will be performed. The Management Plan often includes a schedule, schedule detail, and a budget plan.

4. The performance phase usually involves periodic reporting on schedule and budget status. Status is reported to the DOE program manager on preselected forms which present actual progress and accrued cost information.

5. The Guidelines also describe technical reports needed during or after the performance phase. Reporting technical information serves to keep the Department of Energy current with energy technology and systems in research, development and demonstration phases.

E. Application of Volume II Guidelines

These Guidelines are designed to apply to DOE grants and cooperative agreements. Any recipient of DOE assistance may be requested to provide some performance information.

F. Award Clause for UCRS

Appendix B contains a sample clause which DOE can use in the assistance award to refer to the performance information it would like to receive from the recipients.

G. Forms

There are two types of forms: baseline plans and performance reports. Specific plans and reports needed for each effort will be identified on a Federal Assistance Reporting Checklist. (See paragraph I. of this part for explanation of the checklist.) A brief description of each plan and report follows. Part II of the Guidelines provides more detailed explanation of the planning documents, and Part III provides further explanation of the report forms.

1. This system uses the baseline method of management reporting. Baseline plans, developed prior to beginning the work, serve as the standards against which progress is measured after the work begins. The plans show how the recipient intends to accomplish the objective(s), and how much time and money it will take. Plans can be developed on the basis of a work breakdown structure, which is described in paragraph B of Part II.

The *Federal Assistance Management Plan* provides a description of how the work will be performed. The description is a narrative which varies in length according to the complexity of the program. To shorten the narrative, the following planning forms can be included.

The *Federal Assistance Milestone Plan* presents a schedule for accomplishing the work.

The *Federal Assistance Intermediate Event and Milestone Log* elaborates the schedule shown on the Federal Assistance Milestone Plan.

The *Federal Assistance Cost Plan* shows a time-phased baseline of accrued costs.

The *Federal Assistance Management Summary Report* can be used as a planning form to present a summary of planned costs and schedule information. It serves as an alternative to using the Milestone Plan and the Cost Plan. This form is also used to report on the status of the effort.

2. Performance reports provide information needed to monitor and evaluate the program.

The *Federal Assistance Management Summary Report*, used as a performance report, summarizes cost and schedule information. This form provides the performance information necessary to monitor the status of an on-going effort. Planned cost and schedule information is summarized and transposed from the planning forms to this summary report form to indicate the baseline. Then, as work is performed, actual progress and accrued costs are entered in the summarized format and measured by comparison with the baseline.

The *Federal Assistance Program/Project Status Report* is a narrative concerning the status of the effort. The report highlights significant variances, problems, and achievements.

The *Financial Status Report* provides information on the status of funds expended in the effort. This is an OMB form, also known as Standard Form 269.

The *Technical Report* provides DOE with scientific, technical, and practical information resulting from the performed work.

The *Notice of Energy RD&D Project* identifies the performance objectives, the technical approach and the expected results of research, development, and demonstration (RD&D) efforts for assimilation into the DOE Information System and the Smithsonian Scientific Information Exchange (SSIE).

H. How to Select Plan and Reports

In the context of program legislation and Federal regulation, the DOE program manager makes a selection of planning and reporting forms needed for program monitoring purposes. DOE program managers should request *only* those plans and reports necessary for effective monitoring. The Guidelines are not intended to impose extraneous reporting requirements on assistance recipients.

Reports cannot be requested more frequently than once every quarter. Quarterly figures rather than monthly figures, therefore, should be requested on cost plans and reports. However, monthly figures will be accepted if the recipient prefers to report monthly data.

To determine what planning and reporting documents are necessary, the DOE Program manager should consider the following criteria:

1. Type, value, and duration of the assistance instrument.
2. Significance, scope and complexity of the effort.
3. Requirements of Congress and other Federal agencies, e.g., the Department of Housing and Urban Development.
4. Information requirements of other DOE offices, e.g., the Technical Information Center.
5. Recipient's reporting burden, determined by the number of required reports, their level of detail, and frequency of submission.

I. Federal Assistance Reporting Checklist

1. The DOE program manager will complete a Federal Assistance Reporting Checklist after determining a minimum of plans and reports needed for effective program monitoring. The Checklist will identify for the recipient when and what reports are due. In addition, the DOE program manager will provide the full addresses for recipients of reports on the back of the form. Any special reporting instructions specified by the program legislation, the program office, or by the government technical representatives, will be noted in item 4—"Special Instructions." When follow-on program years are planned, the DOE program manager will include information on submitting subsequent year plans in Item 4. A sample Federal Assistance Reporting Checklist follows (Figure 2) on pages 5 and 6.

FEDERAL ASSISTANCE REPORTING CHECKLIST

1. Identification Number <div style="text-align: center;">1234</div>	2. Program/Project Title <div style="text-align: center;">ENERGY AUDIT PROGRAM</div>																								
3. Reporting Requirements																									
<div style="border-bottom: 1px solid black; padding-bottom: 5px;"> Project Management Reporting </div> <div style="padding-bottom: 5px;"> ☒ Federal Assistance Management Plan </div> <div style="padding-bottom: 5px;"> ☒ Federal Assistance Milestone Plan </div> <div style="padding-bottom: 5px;"> ☒ Federal Assistance Intermediate Event & Milestone Log </div> <div style="padding-bottom: 5px;"> ☒ Federal Assistance Cost Plan </div> <div style="padding-bottom: 5px;"> ☒ Federal Assistance Management Summary Report </div> <div style="padding-bottom: 5px;"> ☒ Federal Assistance Program/Project Status Report </div> <div style="padding-bottom: 5px;"> ☒ Financial Status Report, OMB Form 269 </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> Technical Information Reporting </div> <div style="padding-bottom: 5px;"> ☐ Technical Report </div> <div style="padding-bottom: 5px;"> ☐ Notice of Energy RD&D </div>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">FREQUENCY</th> <th style="text-align: center;">NO OF COPIES</th> <th style="text-align: center;">ADDRESSEES</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;">1,3</td> <td style="text-align: center;">A,B</td> </tr> <tr> <td style="text-align: center;">XY</td> <td style="text-align: center;">3</td> <td style="text-align: center;">B</td> </tr> <tr> <td style="text-align: center;">XY</td> <td style="text-align: center;">3</td> <td style="text-align: center;">B</td> </tr> <tr> <td style="text-align: center;">XY</td> <td style="text-align: center;">3</td> <td style="text-align: center;">B</td> </tr> <tr> <td style="text-align: center;">Q</td> <td style="text-align: center;">1</td> <td style="text-align: center;">B</td> </tr> <tr> <td style="text-align: center;">Q</td> <td style="text-align: center;">1</td> <td style="text-align: center;">B</td> </tr> <tr> <td style="text-align: center;">Q</td> <td style="text-align: center;">1,1</td> <td style="text-align: center;">B,C</td> </tr> </tbody> </table>	FREQUENCY	NO OF COPIES	ADDRESSEES	X	1,3	A,B	XY	3	B	XY	3	B	XY	3	B	Q	1	B	Q	1	B	Q	1,1	B,C
FREQUENCY	NO OF COPIES	ADDRESSEES																							
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XY	3	B																							
XY	3	B																							
XY	3	B																							
Q	1	B																							
Q	1	B																							
Q	1,1	B,C																							
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Q — Quarterly; within 30 days after end of calendar quarter or portion thereof	X — Required with proposals or with the application or with significant planning changes																								
4. SPECIAL INSTRUCTIONS <div style="margin-left: 20px;"> A. No technical Report required for program. B. Plan for second budget year should be submitted to the Project Manager 60 days prior to the beginning of the budget year. </div>																									
PREPARED BY: <div style="margin-left: 20px;">T.J. NOTEWORTHY <i>T.J. Noteworthy</i></div>	6. REVIEWED BY: <div style="margin-left: 20px;">YOO TOO BUD <i>-Yoo Too Bud</i></div>																								

FIGURE 2

FEDERAL ASSISTANCE REPORTING CHECKLIST

PURPOSE

A checklist to identify plans and reports selected by DOE.

INSTRUCTIONS

- Item 1 — Enter the program/project identification number as it appears in the official award.
- Item 2 — Enter the program/project description as it appears in the official award.
- Item 3 — Check spaces to indicate plans and reports selected. For each report checked, indicate frequency of delivery in column provided using one of the frequency codes shown, as well as the number of copies requested and to whom they should be sent.

Federal Assistance Management Plan — The plan to manage and perform the effort described in the statement of work.

Federal Assistance Milestone Plan — The time scheduled for achieving the project's objectives.

Federal Assistance Intermediate Events and Milestone Log — A listing of scheduled events to supplement the milestone plan.

Federal Assistance Cost Plan — A plan for budgeting and to measure progress in terms of cost; update and forecast fund requirements; and to plan funding changes. A plan to develop fund requirements and budget estimates.

Federal Assistance Management Summary Report — A graphic presentation of cost and milestones.

Federal Assistance Project Status Report — A periodic report to communicate to DOE an assessment of project status, to explain variances and problems, and to discuss any other areas of concern or achievements.

Federal Assistance Notice of Energy R&D Project — A formatted, two-page report to provide information on unclassified DOE R&D projects for dissemination to the scientific, technical, and industrial communities and to the public. Also provides information to the Smithsonian Information Exchange and to the DOE Technical Information Center.

Federal Assistance Technical Report — A periodic report of progress and/or results of DOE supported RD&D and scientific projects.

FREQUENCY CODES

Each code must have an identified time period, (such as quarterly) which also has a specific date of receipt by DOE. These time periods are suggested in the solicitation and negotiated at the time of the award.

- Item 4 — Identify any special reporting requirements or instructions not indicated in item 3. (Use additional sheets as necessary.)
- Item 5 — Signature of person or persons preparing the checklist and the date prepared. Preparation is by person or persons responsible for program solicitation.
- Item 6 — Signature of the person reviewing the checklist and date reviewed.

REPORTS DISTRIBUTION LIST

A. Yoo Too Bud Program Manager Office of Conversation Department of Energy, MS 129 Washington, D.C. 20545	B. T. J. Noteworthy Project Manager Dept. of Energy, Regional Office 14 Capitol St. Yon, Alexandria 45000	C. Ad D. Beans Financial Officer Dept. of Energy, Regional Office 14 Capitol St. Yon, Alexandria 45000
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2. *Selection Guide for Plans and Performance Reports.* Table 1 on page 8 suggests upper limits to the variety of plans and reports DOE monitors would need. Rigid reporting stipulations have not been made because of the acknowledged differences among assistance recipients and their objectives. This table can be considered a guide to the kinds of reporting forms that would be useful and appropriate since the reports meet planning and performance reporting requirements outlined in OMB Circulars A-102, A-110, and A-111.

However, DOE program managers are expected to apply their specific knowledge of the assistance award to make selections. Table 1 is provided only as an initial reference for DOE program managers monitoring Federal assistance awards. DOE program managers should be able to make more tailored selections based on their understanding of all program factors.

1. *Limited Efforts* usually have a dollar value up to \$25,000 and/or a limited time frame of less than 12 months.

2. *Moderate Efforts* usually have a dollar value between \$25,000 and \$75,000 annually and/or a time frame of less than 2 years.

3. *Mid-Range Efforts* usually have a dollar value between \$75,000 and \$150,000 annually and/or a time frame between 2 and 3 years.

4. *Large, Long-Range Efforts* usually have a dollar value over \$150,000 annually and/or a time frame in excess of 3 years.

FREQUENCY	DATE OF RECIPIENT BY GOVERNMENT
A (As necessary).....	Within 5 calendar days after event
F (Final).....	Within 90 days of the end of performance on the Federal Assistance effort
M (Monthly).....	Within 30 days after the end of the month
X (With proposals, Application..... or planning change)	Accompanying proposals, applications, or with significant planning changes
O (One time).....	Within 30 days after award
Q (Quarterly).....	Within 30 days after the end of a calendar quarter
S (Semiannually).....	Within 30 days after end of program half year
Y (Yearly).....	Within 30 days after end of the program year

**TABLE 1—
GUIDE FOR SELECTION OF PLANS AND REPORTS**

Plans and Reports for Recipients of Grants and Cooperative Agreements		LIMITED EFFORTS ¹	MODERATE EFFORTS ²	MID-RANGE EFFORTS ³	LARGE/LONG-RANGE EFFORTS ⁴
MANAGEMENT PERFORMANCE	Fed. Assistance Management Plan		X	X	X
	Fed. Assistance Milestone Plan			XY	XY
	Fed. Assistance Intermediate Event & Milestone Log			XY	XY
	Fed. Assistance Cost Plan			XY	XY
	Fed. Assistance Management Summary Report		XF	S	Q
	Fed. Assistance Program/Project Status Report		F	S	Q
	Financial Status Report, OMB Form 269	F	F	SF	QF
TECHNICAL	Technical Report*	F	F	YF	YF
	Notice of Energy RD&D, DOE Form 538	F	O	OY	OY

1. **Limited Efforts** usually have a dollar value up to \$25,000 and/or a limited time frame of less than 12 months.
2. **Moderate Efforts** usually have a dollar value between \$25,000 and \$75,000 annually and/or a time frame of less than 2 years.
3. **Mid-Range Efforts** usually have a dollar value between \$75,000 and \$150,000 annually and/or a time frame between 2 and 3 years.
4. **Large, Long-Range Efforts** usually have a dollar value over \$150,000 annually and/or a time frame in excess of 3 years.

* The Reporting Level indicated is the DOE minimum Reporting for all Research, Development, and Demonstration Projects. Additional Technical Reporting may be needed for large/long range efforts. Publication in Peer Reviewed Journals may be encouraged by the Program Manager.

Part II. Planning

A. General

The Uniform Contractors Reporting System (UCRS) uses a baseline method of management reporting. Work is divided into discrete units and planned in terms of schedule and costs. The schedule and cost plans prepared at the outset are then adopted as standards for managing the project and reporting on its status to DOE. The cost and schedule plans should be developed for the entire period of performance; however, near-term efforts would be planned in more detail than longer term work. The initial budget and schedule plans submitted to DOE usually detail one year's performance. Annual updates of the baseline plans are usually requested by the DOE program manager 60 days prior to the beginning of the next budget year.

Deviations from the plans can frequently be shown on the original plans. When plans have significant changes, such as when tasks are added or deleted, it may be necessary to revise the original plans. Some changes can be made by notifying the DOE program manager; other changes will need DOE approval. The Federal assistance instrument will identify the latitude of changes that can be introduced without DOE concurrence.

B. The Work Breakdown Structure (WBS)

Purpose

A major facet of management is identifying and organizing the project's objectives and planning for the budget and the time to accomplish them. At the outset of each effort, the objectives must be clearly defined so that they can be translated into units of manageable work. The component parts of the work effort can be presented in a work breakdown structure (WBS) format.

General Instructions

The WBS defines, organizes, and identifies the work involved in accomplishing the objectives. Discrete units of work, representing the separate parts of the effort on a number of levels, are arranged in a hierarchical format. Federal assistance recipients may find that the more levels and work units they define, the easier it is to plan and monitor their projects. However, if DOE requests reporting by WBS elements, information is usually collected only to the third level of the hierarchy. Frequently the DOE program manager will provide guidance concerning what work units to include in the WBS.

The Work Breakdown Structure

Discussion of the Example, Figure 3

Level 1 (in Figure 3) refers to the program or project objective. For some programs, DOE will define level 1 and level 2 elements on the Federal Assistance Reporting Checklist. In the example, level 1 corresponds to "establish an energy audit program," and is numbered 1.0.

Level 2 consists of the component tasks essential to fulfillment of the objective. In the example, there are five tasks which must be accomplished in order to establish the energy audit program. These level 2 components are commonly called milestones and numbered progressively 1.1, 1.2, 1.3, 1.4, and 1.5.

Level 3 outlines the steps — intermediate events — necessary to complete level 2 tasks. The last intermediate event shown on level 3 is one definitive step before completion of the milestone. For example, there are three intermediate steps before completion of Milestone 1.3—"Conduct Auditor Training." The last intermediate event, 1.3C—"Prepare Trainers," is the last step before the milestone is completed by conducting auditor training. Intermediate events are identified as 1.1.1, 1.1.2, 1.1.3, or 1.1A, 1.1B, 1.1C, etc.

EXAMPLE OF WORK BREAKDOWN STRUCTURE FOR
ESTABLISHING AN ENERGY AUDIT PROGRAM

FIGURE 3

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C. The Federal Assistance Management Plan

Purpose

The Management Plan describes how the program or project will be conducted in order to perform the work. It is a concise narrative discussing the project's purpose, methods, administration, schedule, and budget. The Management Plan can include baseline forms (Milestone Plan, Cost Plan, or Management Summary Report) and thereby reduce some of the narrative.

General Instructions

A Management Plan should provide sufficient information, in proportion to the effort, to describe how the effort will be conducted. The content and the length of the Management Plan will vary, of course, with the nature and complexity of the effort. For example, a small effort involving only one or two individuals for a period of three months would not generate a formal organizational structure, nor usually, formal methods of performance control and progress reviews.

In some cases, a Management Plan has been incorporated into the original technical proposal or application package. Many times a narrative of this type is required as part of the preapplication and application for Federal assistance, (i.e., Preapplication for Federal Assistance, OMB #80 R0187, Application for Federal Assistance-Nonconstruction Programs, Part IV—Program Narrative). If the original package contained an adequate explanation of the objectives, methodology, budget, schedule, and administration of the effort, this narrative can be used instead of the Management Plan format shown here. The DOE program manager should be able to indicate on the Federal Assistance Reporting Checklist whether a Management Plan is needed.

The discussion of a sample Federal Assistance Management Plan outline follows.

Federal Assistance Management Plan

Discussion of the Outline

I. Objective

This section of the narrative should state the goals and objectives of the program. A reference to economic, social, financial, institutional, or physical problems should be stated whenever the objectives address their solution. This section should include discussion of the benefits or results expected from the planned activity, especially when the activity fulfills public needs or accomplishes a public purpose authorized by Federal statute. For example, a research effort could include a reference to new knowledge expected from the investigation and its relation to present knowledge or comparable work in progress elsewhere.

II. Work Plan

This section should describe the plan of action or approach the proposed effort will be taking to accomplish the objectives. A description of work elements and subelements should be included. The Work Breakdown Structure could be used as a format to present these work elements. Research efforts could include, as work elements/subelements, the experiments and procedures to be followed.

The schedule should provide a timetable for accomplishing major milestones and completing the element/subelement activities. A Milestone Plan and the Intermediate Event/Milestone Log (discussed on pages 17 thru 24) could be included in this section to present the proposed timetable.

The budget section should disclose the annual resource requirements in some detail. The requirements should relate to the program by cost categories (i.e., personnel, supplies, equipment, travel) or by work elements/subelements (from a Work Breakdown Structure). Most budgets detail expected cost items ("object cost categories") for each year,¹ although, some projects may lend themselves more readily to budgeting costs by work elements. Both methods are illustrated in this volume. (Please refer to Appendix C for an example of budgeting by WBS elements.) The budget should show planned costs on an accrual basis for total planned costs although DOE may be providing only part of the funds. When total funds are shown and DOE is only providing a portion, the DOE portion should be clearly identified. The Cost Plan (described on pages 25 thru 28) can be used as a format for presenting the planned budget. As an alternative, schedule and budget projections can both be presented in less detail on a Management Summary Report (discussed on pages 29 thru 32).

¹ The DOE award instrument may provide complete information on allowable costs and cost categories. For more information concerning allowable costs and cost categories, refer to *FMC 73-8: Cost Principles for Educational Institutions*; or *FMC 74-4: Cost Principles Applicable to Grants and Contracts with State and Local Governments*.

III. Program Factors

Key Personnel. This section allows the recipient to list the names of the project directors, managers, and other key staff members. Scientists and researchers would be included in this section for planned research activities.

Organizations, Cooperators, Consultants, or other Key Individuals. This section provides more information concerning how the activity will be accomplished. Organizations may include civic associations and community groups, cooperators may refer to students or faculty members participating in studies, and other key individuals may include elected or appointed officials providing information or support.

Facilities, Premises, Equipment, and Materials. A reference to state or institutional facilities, materials, equipment, etc., can be inserted in this section to reflect significant items which bear upon the method of accomplishment. A discussion of Government-Owned-Property, and the procedures for its control, protection, operation, and maintenance can also be included in this section.

Federal Assistance Management Plan

Sample Outline

- I. Program Objectives
- II. Work Plan
 - A. Elements and subelements (Work Breakdown Structure, in lieu of narrative).
 - B. Schedule (Milestone Plan, in lieu of narrative).
 - C. Budget (Cost Plan, in lieu of narrative).
 - D. Management Summary Report (in lieu of separate Milestone Plan and Cost Plan or narrative).
- III. Program Factors
 - A. Key Personnel Assigned to the Effort.
 - B. Organizations, Cooperators, Consultants, or Other Key Individuals Contributing to the Effort.
 - C. Facilities, Premises, Equipment, and Materials to be Furnished by the Recipient, DOE or Other Sources.

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D. Federal Assistance Milestone Plan

Purpose

The Federal Assistance Milestone Plan establishes the program schedule. The Milestone Plan and the Log are often submitted together in the Management Plan to show the order of planned progress. When the Milestone Plan is accompanied by the Intermediate Event and Milestone Log, the DOE reviewer is provided with a complete schedule of events.

General Instructions

A Federal Assistance Milestone Plan features a schedule for twelve months' effort. Each Milestone Plan represents one budget year, starting with the first month of planned activity or the budget year specified by the DOE program manager. If the project is expected to continue for two or more years, a Milestone Plan is usually submitted for each year 60 days prior to the beginning of the budget year.

The Milestone Plan can be prepared based on the Work Breakdown Structure because the discrete units of work shown in the WBS can be scheduled over a period of time (WBS discussed on pages 9 thru 11). The interval of time required to complete each activity is determined by the recipient and represented graphically on the Milestone Plan. Level 2 of the Work Breakdown Structure (major tasks—milestones) is the level of detail normally represented on the form with "milestone bars." Intermediate events (level 3 elements in the WBS) are indicated by inverted triangles along the milestone bars.

Instructions for preparing the Federal Assistance Milestone Plan are printed on the reverse side of each form. Discussion of a sample Milestone Plan follows on pages 18 and 19.

Federal Assistance Milestone Plan

Discussion of the Example, Figure 4

Item 3 — Planning Period. The dates entered in this block identify the planning period represented on this form. The form provides enough space in Item 9 to schedule one budget period of twelve months or four quarters. If the effort spans two years, a separate Milestone Plan should be submitted for the subsequent year. In this example, the planning period covers the first twelve months of the project, starting with the first day of activity, 4/1/80 and ending with 3/31/81.

Item 5 — Program/Project Start Date. The date entered in this space (4/1/80) is the date the effort begins. In the example, the project start date is the same as the first day of the planning period because this Milestone Plan covers the first year of the project. (If this form represented the planning period for the second year, the date shown in this space would remain the same and precede the planning period start date shown in Item 3 by one year.)

Item 6 — Program/Project Completion Date. The date entered in this space indicates the date the project ends. The date shown on this example is one year after the completion date of the planning period in Item 3 because the Energy Audit Program shown here is expected to continue for another year, ending 3/31/82.

Item 7 — Identification Number. The identification number is a milestone reference number given to the task by the recipient or taken from the Work Breakdown Structure. In this example, the milestone identification numbers correspond to the numbers given to the Work Breakdown Structure elements.

Item 8 — Planning Category (Work Breakdown Structure Tasks). A short descriptive title is entered for each milestone activity. In the example, "Determine Performance Requirements" is a short title for the milestone task which results in the establishment of audit data requirements and audit performance procedures.

Item 9 — Budget Period in Months or Quarters. The budget period is divided into months and quarters to accommodate the planning process. In this example, the first month of planned activity is April, identified by an "A" in the first block.

Item 10 — Comments. This column is provided only for the convenience of the planner and allows the addition of any comments, notes, or names of performers, sub-grantees, etc. The name of the printer who will be producing the printed audit material for milestone 1.2 is noted here. The "C-2/82" entered here indicates to the planner that milestone 1.4 will be completed in February 1982. This note is also referenced in *Item 11 — Remarks*.

Task 1.1 — Determine Performance Requirements. The milestone bar indicates this activity is planned to begin April 1, 1980 and end June 16, 1980. Five intermediate events (indicated by the inverted triangles above the milestone bar) are scheduled for completion before the task is finished. The first and second intermediate events (A+B) are scheduled for completion at the same time (4/18/80) and are indicated on the activity bar by one inverted triangle.

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FIGURE 4

FEDERAL ASSISTANCE MILESTONE PLAN

PURPOSE

The Milestone Plan is used as a planning tool, establishing the time schedule for accomplishing the planned work. Usually, it is accompanied by the Intermediate Event and Milestone Log.

INSTRUCTIONS

- Item 1 — Enter the Federal grant or agreement identification number for the current year as it appears in the official award, if known.
- Item 2 — Enter the identifying name or description of the program/project, and, if applicable, the project identification number.
- Item 3* — Enter the start and completion dates for the budget period of this report.
- Item 4* — Enter the name and address of the performer responsible for managing the task.
- Item 5* — Enter the original start date of the program/project.
- Item 6* — Enter the official completion date as of the latest modification.
- Item 7 — Enter the milestones' identification numbers from the work breakdown structure or as assigned by the DOE program office or managing office.
- Item 8 — Enter a brief, identifying description of the milestones.
- Item 9 — Enter the first letter of each month of the budget period in the 12 blocks. If reporting by quarters, use the three column spaces separated by the heavy vertical lines and identify the quarters such as first quarter and so on.
- Item 10 — Enter the name of the organization responsible for performing the work if different than in Item 4 or any note for clarification of line entries.
- Item 11 — Enter any explanatory notes. If more space is required, attach additional sheets and so indicate in this block.
- Item 12 — Enter the signature of the Federal Assistance Recipient and the date signed to verify that the information is reasonable based on knowledge of the project.
- Item 13 — Signature of the DOE reviewer and the date signed, which indicates that the information on the plan has been reviewed and appears reasonable.

*It is only necessary to enter these items on the first page of multi-page reports.

SYMBOLS

Milestone

Intermediate Event
(Deliverable,
Supporting Event,
or Decision Point)

Activity Bar

CHARTING INFORMATION

A.

B.

EXAMPLES

Milestone with an activity bar

Activity which continues beyond the time period shown

CONVENTIONS

- 1 — Under no condition should more than one milestone be shown on a single horizontal line.
- 2 — Intermediate events may be shown only in association with an activity bar. These event symbols are placed above the bar or line and each is labeled for identification. A description of each intermediate event should be provided in an attachment to the Milestone Plan (Intermediate Event and Milestone Log).
- 3 — The Milestone and Intermediate Event Symbols are placed to show completion dates.

E. Federal Assistance Intermediate Event and Milestone Log

Purpose

Intermediate events and milestones are identified, along with their start and completion dates, on the Intermediate Event and Milestone Log to supplement the schedule information depicted on the Milestone Plan.

General Instructions

The Log should be filled out at the same time as the Milestone Plan and submitted with the Milestone Plan. The events listed in alphanumeric order are intermediate events (WBS Level 3 elements) and milestones (WBS Level 2 elements). The log should start with the first intermediate event (1.1.A) and end with the last milestone (1.5) of the year.

Instructions for preparing the Federal Assistance Intermediate Event and Milestone Log are printed on the reverse side of each form. Discussion of a sample Log follows.

Federal Assistance Intermediate Event and Milestone Log

Discussion of the Example, Figure 5

Item 2 — Program/Project Title. This block provides space for the project title and for the planning period dates. (Same as Items 2 and 3 on the Milestone Plan).

Item 3 — Event Code. The numeric or alphanumeric code given to each activity on the Milestone Plan should be entered for easy reference. The first entry in this column is 1.1.A, identifying the first intermediate event in the first milestone task (1.1).

Item 4 — Milestone and Intermediate Event. The entries in this column relate to the milestone and the intermediate events shown on the Milestone Plan. For example, the 6th entry in this column, "1.1 Establish Performance Requirements," is a short title identifying the first milestone task.

Item 5 — Planned Start Date. The start date for each intermediate event and milestone activity is entered in this column. In the example, 10/31/80 is the planned start date for intermediate event 1.5.A, the date 10/31/80 will also appear as the planned start date for the milestone 1.5.

Item 6 — Planned Completion Date. In the example, most intermediate events and milestone activities are scheduled for completion during the planning period 4/1/80 - 3/31/81. However, some activities, as shown on the Milestone Plan, will continue into the next year. Even for those cases, the planned completion dates are shown. For further clarification, many entries include the year of completion.

Item 7 — Comments/Planned Units to be Completed. Comments, explanations, and other items can be entered in this column. In the example, the completion dates which extended beyond the planning period completion date (3/31/81) are tagged and so noted for milestone 1.4. When quantitative goals are established, they can also be entered, as for milestone/events 1.2, 1.3, 1.3B, and 1.4F.

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FEDERAL ASSISTANCE INTERMEDIATE EVENT AND MILESTONE LOG

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1. Program/Project Identification No.		2A. Program/Project Title		2B. Planning Period	
I 234		Energy Audit Program		4/1/80 through 3/31/81	
3. Event Code	4. Milestone/Intermediate Event	5. Planned Start Date	6. Planned Completion Date	7. Comments/Planned Units to be Completed	
1.1.A	Determine Data Requirements	4/1/80	4/18/80		
1.1.B	Calculate No., Type Recipients	4/1	4/18		
1.1.C	Draft Procedures & Forms	4/18	5/15		
1.1.D	Review Drafts	5/16	5/30		
1.1.E	Incorporate Comments	6/2	6/10		
1.1	Establish Performance Rqmts.	4/1	6/16		
1.2.A	Develop Workbooks & Report Forms	5/15	6/30		
1.2.B	Develop Training Manual	5/15	7/15		
1.2.C	Cycle for Approval	7/15	7/31		
1.2.D	Prepare Materials for Printing	8/1	8/7		
1.2	Produce Audit Materials	5/15	8/20	250 Workbooks & 1000 Report Forms	
1.3.A	Develop Training Format	6/2	7/15		
1.3.B	Advertise Training	7/1	8/15	Announcements in 8 local newspapers	
1.3.C	Prepare Trainers	7/15	8/29		
1.3	Conduct Training	6/2	10/17	6 Training Sessions	
1.4.A	Contract Target Audience for Audits	8/1	9/1		
1.4.B	Select Audit Recipients	9/2	10/1		
1.4.C	Schedule Audits	9/2	10/1		
1.4.D	Establish Monitoring Effort	8/15	10/24		
1.4.E	Monitor Performance of Audits	10/27/80	3/2/81		
1.4.F	Complete Scheduled Audits	10/2/80	3/2/81	200 Audits	
1.4	Conduct Audits	8/1/80	2/28/82	This Activity will be completed in the next Budget Period.	
1.5.A	Establish Sampling Procedures	10/31/80	12/1/80		
1.5.B	Analyze Data & Make Recom'ds to Audit Participants	10/3/80	1/20/81		
1.5.C	Sample Participants	2/1/81	2/28/81		
1.5.D	Analyze Sample to Evaluate Program	3/2/81	3/16/81		
1.5	Provide Analysis of Audit Program to Date	10/31/80	3/31/81		

FIGURE 5

FEDERAL ASSISTANCE INTERMEDIATE EVENT AND MILESTONE LOG

PURPOSE

Provide a key to understanding the intermediate events and milestone listed on the Milestone Plan.

INSTRUCTIONS

- Item 1 — Enter the Federal assistance identification number for the current year as it appears in the official award document, if known.
- Item 2 — Enter the program or project title as shown in Item 2 on the Milestone Plan and the dates shown in Item 3 on the Milestone Plan.
- Item 3 — Enter the task identification number as it appears in the work breakdown structure, or as assigned by DOE.
- Item 4 — Enter the task identification/description as it appears in the work breakdown structure.
- Item 5 — Enter the planned start date of the event or milestone.
- Item 6 — Enter the planned completion date for each activity.
- Item 7 — Enter explanatory notes and comments. Enter an estimate of work units which are planned for completion by the date shown in Item 6, when qualification is possible. If more space is required, attach additional sheets and so indicate in the block.

F. Federal Assistance Cost Plan

Purpose

The Cost Plan shows the planned rate of accrued project costs for the same twelve month period shown on the Milestone Plan. The Cost Plan should assist recipients plan annual budgets and forecast future funding requirements.

General Instructions

To benefit the planning process, the Cost Plan should be prepared on the basis of total annual funds, although the Federal government may be providing only part of the funds. When total funds are shown, the DOE portion should be identified by DOE source (i.e., by program or B&R code).

The plan should show all financial requirements broken down to an appropriate level of detail. This volume contains three examples of a Cost Plan to illustrate alternative methods of planning budgets. Each Cost Plan details costs for one twelve month budget period. Although annual costs for three follow-on years can be entered on the plan, a detailed Cost Plan for each follow-on year is usually submitted 60 days before the beginning of that budget period.

Instructions for preparing the Cost Plan are printed on the reverse side of each form. Discussion of one example follows; two more examples are described in Appendix C.

Federal Assistance Cost Plan

Discussion of the Example, Figure 6

Item 3 — Planning Period. The dates in this space correspond to the twelve month planning period shown on the Milestone Plan, 4/1/80 through 3/31/81. The dates in *Item 5 — Program/Project Start Date* and *Item 6 — Program/Project Completion Date* correspond to Items 5 and 6 on the Milestone Plan.

Item 7 and Item 8 — Function ID Number and Description. The only activity identified is Establish Energy Audit Program. As clarified in *Item 16 — Remarks*, the figures entered in *Item 12* are estimated costs by cost elements. This method of budgeting shows costs for the entire effort, broken out by type of cost. In the example, personnel costs for all five milestone efforts for the first quarter are estimated at 112 hundred dollars.

Item 9 — Cost Category. Allowable cost categories are entered in this column. The Federal assistance instrument should provide information concerning allowable costs¹. Please note the DOE portion of the planned costs is identified and entered on one line at the bottom; *this line of figures is not added into the column totals*. Column totals are identified before entering the DOE portion. In the example, the totals are shown on the 11th line.

Item 12 — Planned Current Budget Period. This example provides quarterly figures for planned costs per cost category. Again, the twelve months of the budget period have been identified with a letter and the quarterly periods have been identified as "1st," "2nd," "3rd," and "4th." Note the quarters are true calendar quarters although the "1st" here identifies the 1st quarter of the program year, not the 1st calendar quarter. This method of preparing a Cost Plan allows the planner to calculate costs by categories for the entire program and would be especially useful when planning very small efforts. The dollar unit used for all dollar figures is noted in this block at the top "Dollars Expressed in Hundreds."

Item 13 — Planned Future Budget Period. The estimated costs for the next year are entered in column a by cost category and in the same unit (hundreds) as the costs entered in *Item 12*. If the program was planned as a four year effort, annual costs for the three follow-on years would be entered in columns a, b, and c.

Items 10, 11, 12, 13, and 14 — Totals. All five columns should show a total after the last line item entered and before the DOE portion is identified at the bottom.

Item 17 — Signature of Recipient and Date. The recipient's activity manager responsible for the program or project should sign and date the form so that, if questions arise, the appropriate individual can be contacted.

Item 18 — Signature of Reviewing DOE Representative and Date. The DOE program manager responsible for monitoring the program should sign and date the plan, signifying that the plan has been reviewed and appears reasonable.

¹ For more information concerning allowable costs and cost categories, refer to *FMC 73-8: Cost Principles for Educational Institutions*, or *FMS 74-4: Cost Principles Applicable to Grants and Contracts with State and Local Governments*.

FEDERAL ASSISTANCE COST PLAN

PURPOSE

A base plan to allocate costs to each reporting category identified in the Federal Assistance instrument.

INSTRUCTIONS

- Item 1 — Enter the Federal grant or agreement identification number for the current year as it appears in the official award, if known.
- Item 2 — Enter the Program/project official title as it appears in the award.
- Item 3 — Enter the start and completion dates of the budget period for which the plan is applicable.
- Item 4* — Enter name and address of the agency or office responsible for coordination and administration of the program/project.
- Item 5* — Enter the official start date.
- Item 6* — Enter the official completion date as of the latest official modification.
- Item 7 — Enter the identification numbers associated with the function or activity described in Item 8.
- Item 8 — Enter the function or activity descriptions (such as Conducting Public Hearings, Preparing the Report).
- Item 9 — Enter Cost categories for each function or activity listed in Item 8. Cost categories can include the following: Personnel, Indirect Expense, Supplies, Travel, Contractual, Equipment, Fringe Benefits, Other.
- Item 10 — Enter total planned costs for the previous budget periods. Enter total for column after all line entries.
- Item 11 — Enter total actual costs for all the previous budget periods. Enter total for column after all line entries.
- Item 12 — Enter the unit of measure for dollar amounts shown (such as exact, hundreds or thousands). In the blocks heading each column, enter the first letter of each month of the budget period. Enter amounts per line item and totals for each column.
- Item 13 — a through c — Enter budget period (such as 79, 80) for future budget years of assistance. Enter planned costs by future budget period for each category listed in Items 8 and 9. Enter the total after all line entries.

Item 14 — Enter the total planned costs for each reporting category listed in Item 8 and 9 (summation). Total the column after all line entries.

Enter the DOE share for each column in items 10, 11, 12, 13, and 14.

Item 15 — Enter explanatory and brief comments. If more space is required, attach additional sheets and so indicate in this block.

Item 16 — Signature of responsible recipient and date signed for reference.

Item 17 — Signature of DOE reviewing Representative and date signed, signifying the plan has been reviewed and appears reasonable.

*These items need only be entered on the first page of a multi-page Cost Plan.

G. Federal Assistance Management Summary Report

Purpose

The Management Summary Report can be used as a planning document as well as a status report providing summary budget and schedule information. This form presents costs versus benefits and progress on one page. As a planning form, it could be submitted as part of the Management Plan in lieu of the Milestone Plan and the Cost Plan. DOE program managers may approve the use of this summary form in situations requiring only limited information.

General Instructions

The cost graph, on the top half of the page, allows the recipient to plot planned costs on an accrual basis. Under the graph, blocks are provided for the recipient to enter total planned costs by month or by quarter. This summary format does not breakout costs by milestone nor by cost category. The milestone portion of the form, on the bottom half on the page, allows the recipient to plan the work schedule by milestones. Discussion of the form as a planning document follows.

Federal Assistance Management Summary Report

Discussion of the Example, Figure 7

Item 3 — Reporting Period. This block identifies the interval of time shown on the form. The dates that follow are the first and last day of the plan, 4/1/80 through 3/31/81.

Item 8 — Months or Quarters. The time schedule can be identified by months or quarters. In the example, the first quarter of the budget period is identified in the first three blocks with "1st". Please note the quarters are true calendar quarters. The months are also indicated with the first initial of the month.

Item 9 — Cost Status. The dollar scale is expressed in units of a hundred, as noted. A total dollar value for the fiscal year is represented by a solid line at the planned dollar ceiling of 789 hundred. Planned cost figures should be entered at the base of the graph in the blocks provided. In the example, the costs are shown as quarterly sums and entered in the last block for each quarter. On the graph, the quarterly points are plotted at the end of each quarter. "144" for the first quarter is entered in the "June" column to indicate total planned costs up to the end of the first quarter. A broken line joining the points depicts planned accrued costs over time.

Item 10 — Cost Chart. This section allows the recipient to show the breakout of funds among two to four possible fund sources. Blocks are provided for total planned and actual costs for each quarter, cumulative to date, and the fiscal year. A block is provided to identify the variance between the total planned and total actual per quarter. A block is also provided for total planned costs for all project years.

Item 11 — Major Milestone Status. The milestones are entered with an identification number and short descriptive title. Line entries should show an estimated number of units planned for completion in the column titled "Units Planned/Units Completed". When quantification of results is not possible, such as for the last milestone—"1.5—Provide Analysis and Evaluation," no unit measure should be entered. The milestone bar indicates the interval of time planned for performing the task, using the same schedule shown in Item 8 above.

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13 Signature of Recipient and Date SUSAN PRINT <i>Susan Print</i> 1/30/80	14 Signature of DOE Reviewing Representative and Date T. J. NOTEWORTHY <i>T. J. Noteworthy</i> 2/15/80
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FEDERAL ASSISTANCE MANAGEMENT SUMMARY REPORT

PURPOSE

A graphic presentation of costs and milestone status that provides rapid visual analysis and trend forecasting. The funding levels should represent all available resources.

INSTRUCTIONS

- Item 1 — Enter the Federal grant or agreement identification number for the current year as it appears in the official award.
- Item 2 — Enter the program/project official title as it appears in the award and, if applicable, the project identification number.
- Item 3 — Enter the start and completion dates for the current reporting period.
- Item 4 — Enter the name and address of the agency or office responsible for managing the project.
- Item 5 — Enter the official start date of the original agreement.
- Item 6 — Enter the official completion date as of the latest modification.
- Item 7 — Enter the current budget period, such as calendar year (CY 79) or the Federal government fiscal year (FY 79).
- Item 8 — Enter the first letter of each month of the budget period in the 12 blocks. If reporting by quarters, use the three column spaces separated by heavy vertical lines and identify the quarter, such as first quarter and so on.
- Item 9a — Show the unit of dollars used, such as "hundreds" or "thousands."
- b — Enter the appropriate dollar scale for the large grid.
- c — Enter the planned accrued costs for each month or quarter for the current budget period. Then,
- Or the grid, use a solid line extending horizontally to show the dollar ceiling. Then,
 - Enter the actual accrued costs for each month or quarter for the current reporting period. Then,
 - Subtract the planned cost from the actual costs for each month or quarter and show the difference (variance). Show the minus amounts in parentheses. Then,
 - On the grid, use a dashed line to plot the planned cumulative costs by the dollar scale and the month or quarter for the current budget period. Then,
 - Use a solid line to plot the actual cumulative costs for each month or quarter up to and including the month or quarter being reported. If any cost projection will vary from the planned cost for the remainder of the budget period, indicate this by a dotted line extending from the solid line.
- Item 10 — Show planned and actual costs by the source of funding, such as DOE, other Federal agencies (HUD, HEW), state, or other sources for each quarter, as well as the cumulative to date and the total for each funding source. Also show the total planned costs for the life of the program or project.
- Item 11 — Enter the current budget period milestone descriptions. Milestones are activities or tasks needed to be completed to accomplish the project's objectives. Milestones are measurable units of work and can be elements from the work breakdown structure. Then,
- In the column labeled Units Planned, Completed, show the appropriate figures for the current reporting period. Enter, when quantification is possible, the number of items to be produced, serviced, or acted upon.
 - Show the milestones graphically, using the charting information below.

- Item 12 — Enter any brief explanatory remarks regarding schedule deviations. (Include detailed explanations in a Project Status Report.)
- Item 13 — Enter the signature and date of the recipient's activity manager for reference.
- Item 14 — Enter the signature of the DOE program manager responsible for monitoring the program/project to verify the plan has been reviewed and appears responsible. The date of review should also be entered.

CERTAIN PROGRAMS MAY REQUIRE ADDITIONAL INSTRUCTIONS WHICH WILL BE ATTACHED TO THIS FORM.

CHARTING INFORMATION

SYMBOLS

- △ Major Milestone
- ▽ Intermediate Event (Deliverable, Supporting Milestone, or Decision Point)
- ▲ Intermediate Event completed early or late
- ◇ Proposed Scheduled Deviation (late or early) for a major milestone
- Activity Bar
- Dollar Ceiling
- ⋮ Time Now
- ⋮ Continues beyond Time frame shown

EXAMPLES

- A Major milestone with an activity bar
- B Time now and work done
- C Schedule Deviation (not yet approved)
- D First change approved (slippage)
- E Improvement, not contractually implemented
- F First change approved (improvement)
- G Activity ahead of schedule
- H Activity behind schedule
- I Late and on time completion of intermediate events A and B, respectively.
- J Same as Example I above except that here a time line is used in place of an activity bar
- K Original major milestone date and four subsequent approved changes (all slippages) to that date
- L Original major milestone data and two subsequent approved changes (one slippage, one improvement to that date)
- M Intermediate event schedule deviation

Part III. Performance Reporting

A. General

The report forms discussed in this section are used during the project's implementation phase. During this phase when work is being performed, actual progress is measured against the plans and reported to DOE. The reports provide useful information to DOE concerning program effectiveness.

B. Federal Assistance Management Summary Report

Purpose

The Management Summary Report is a concise summary sheet comparing current cost and schedule status to established baselines. This format allows program monitors to recognize realized progress against incurred costs. Planned versus actual costs and planned versus actual progress are juxtaposed in a graphic format to facilitate program review and to reveal those situations which require more attention.

General Instructions

The cost graph displays planned costs, actual costs, and future cost projections. In this format, cost variances and trends can be identified quickly.

The milestone status chart, on the bottom half of the page, compares planned and actual progress for the same interval of time as shown above.

Instructions for completing the Federal Assistance Management Summary Report are provided on the reverse side of each form. An example of the report is discussed on the following pages.

Federal Assistance Management Summary Report

Discussion of the Example, Figure 8

Item 3 — Reporting Period. The reporting period shown in this example is the second quarter—7/1/80 through 9/30/80.

Item 7 — Budget Period. The budget period (BP) is 4/1/80 to 3/31/81 and identified here by the recipient as BP 80.

Item 8 — Months or Quarters. The time schedule is identified by month, starting with the first month of the budget period, April. The schedule has also been identified by quarter.

Item 9 — Cost Status. The dollars are expressed in the same unit (hundreds) as on the cost plan. A total dollar line is drawn solidly across the chart to show the budget year's planned ceiling of \$789 hundred. The planned accrued cost line is represented by a dashed line from zero to the planned dollar ceiling. Actual accrued costs are plotted on the graph and shown as a solid line. In the example, actual accrued costs total 349 to date and the 349 point is plotted on the graph. Please note the planned accrued costs for the same period come to 373 on the graph. The graph illustrates a cost underrun, reversing an overrun experienced in the first quarter. The graph also shows a projected accrued costs line for future quarters based on the recipient's experience to date. The projected accrued costs line is shown as a dotted line joining the actual cost line at 9/30/80. The example shows that the recipient expects the variance to narrow in the next quarter and the disappear by the end of the budget period.

Item 10 — Cost Chart. This block allows the recipient to display a breakout of funds for the program indicating the contributing sources. If there is only one source of funds, the breakout of funds in item 10 need not be completed. In the example, funds are provided by DOE and the State of Alexandria. The planned amount from each source is entered for each quarter. Also the actual funds required from each fund source are shown to date. Totals (planned and actual) for each quarter and cumulative to date are entered at the bottom. Note the total cumulative to date figures (373 and 349) correspond to the points plotted on the graph. The variance for both quarters and cumulative to date is also identified.

Item 11 — Major Milestone Status. The milestones are entered on the following 17 lines. Progress is indicated by filling in the milestone bars with a solid tone to correspond with the progress achieved during the reporting period. The example shows two milestone activities completed and two milestones behind schedule. Milestone 1.3 shows a modified completion date using the standard symbology provided on the back of the form. The vertical dashed line is a "time-now" line which is an indication of the end of the reporting period. This line assists quick assessment of progress to date.

Item 12 — This space allows the recipient to offer any comments. In the example, there is a reference to the Federal Assistance Program/Project Status Report.

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FIGURE 8

FEDERAL ASSISTANCE MANAGEMENT SUMMARY REPORT

PURPOSE

A graphic presentation of costs and milestone status that provides rapid visual analysis and trend forecasting. The funding levels should represent all available resources.

INSTRUCTIONS

- Item 1 — Enter the Federal grant or agreement identification number for the current year as it appears in the official award.
- Item 2 — Enter the program/project official title as it appears in the award and, if applicable, the project identification number.
- Item 3 — Enter the start and completion dates for the current reporting period.
- Item 4 — Enter the name and address of the agency or office responsible for managing the project.
- Item 5 — Enter the official start date of the original agreement.
- Item 6 — Enter the official completion date as of the latest modification.
- Item 7 — Enter the current budget period, such as calendar year (CY 79) or the Federal government fiscal year (FY 79).
- Item 8 — Enter the first letter of each month of the budget period in the 12 blocks. If reporting by quarters, use the three column spaces separated by heavy vertical lines and identify the quarter, such as first quarter and so on.
- Item 9a — Show the unit of dollars used, such as "hundreds" or "thousands."
- b — Enter the appropriate dollar scale for the large grid.
- c — Enter the planned accrued costs for each month or quarter for the current budget period. Then,
- On the grid, use a solid line extending horizontally to show the dollar ceiling. Then,
 - Enter the actual accrued costs for each month or quarter for the current reporting period. Then,
 - Subtract the planned cost from the actual costs for each month or quarter and show the difference (variance). Show the minus amounts in parentheses. Then,
 - On the grid, use a dashed line to plot the planned cumulative costs by the dollar scale and the month or quarter for the current budget period. Then,
 - Use a solid line to plot the actual cumulative costs for each month or quarter up to and including the month or quarter being reported. If any cost projection will vary from the planned cost for the remainder of the budget period, indicate this by a dotted line extending from the solid line.
- Item 10 — Show planned and actual costs by the source of funding, such as DOE, other Federal agencies (HUD, HEW), state, or other sources for each quarter, as well as the cumulative to date and the total for each funding source. Also show the total planned costs for the life of the program or project.
- Item 11 — Enter the current budget period milestone descriptions. Milestones are activities or tasks needed to be completed to accomplish the project's objectives. Milestones are measurable units of work and can be elements from the work breakdown structure. Then,
- In the column labeled Units Planned, Completed, show the appropriate figures for the current reporting period. Enter, when quantification is possible, the number of items to be produced, serviced, or acted upon.
 - Show the milestones graphically, using the charting information below.

- Item 12 — Enter any brief explanatory remarks regarding schedule deviations. (Include detailed explanations in a Project Status Report.)
- Item 13 — Enter the signature and date of the recipient's activity manager for reference.
- Item 14 — Enter the signature of the DOE program manager responsible for monitoring the program/project to verify the plan has been reviewed and appears responsible. The date of review should also be entered.

CERTAIN PROGRAMS MAY REQUIRE ADDITIONAL INSTRUCTIONS WHICH WILL BE ATTACHED TO THIS FORM.

CHARTING INFORMATION

SYMBOLS

△ Major Milestone

▽ Intermediate Event (Deliverable, Supporting Milestone, or Decision Point)

▲ Intermediate Event completed early or late

◇ Proposed Scheduled Deviation (late or early) for a major milestone

□ Activity Bar

— Dollar Ceiling

--- Time Now

⋮ Continues beyond Time frame shown

EXAMPLES

C. Federal Assistance Program/Project Status Report

Purpose

The Program/Project Status Report is a concise narrative describing the status of the effort. The report allows the Federal assistance recipient to communicate any developments, changes, achievements, or problems to DOE.

General Instructions

The report focuses on variations from management baselines or the technical approach, accomplishments or problems, and actions taken or proposed to resolve problems or variances. Open items requiring action by the recipient or DOE are discussed and the director of the effort provides assessment of the present situation and a forecast of future progress.

A sample Federal Assistance Program/Project Status Report is discussed on the following pages.

Federal Assistance Program/Project Status Report

Discussion of the Example, Figure 9

Item 7 — Approach Changes. A brief description of any changes in the work effort should be provided in this section. This would include a description of any technical changes as well as programmatic changes. If more information is necessary, attach additional pages. In the example, the box is checked to indicate no changes.

Item 8 — Performance Variances, Accomplishments, or Problems. This section should include a discussion of problems and variances, their causes and the effects on the project. Any accomplishments during the reporting period should be noted. The example refers to receipt of audit materials, and a delay in the training activity which might impact on the number of audits conducted in the next quarter.

Item 10 — Status Assessment and Forecast. This section of the report allows the recipient to present an analysis of the situation. Proposed solutions and expectations of future progress can also be discussed. If more discussion is deemed necessary, the recipient can attach additional pages.

Item 11 — Description of Attachments. A list of attachments should be included. In the example, an Audit Workbook has been attached.

U.S. DEPARTMENT OF ENERGY
FEDERAL ASSISTANCE PROGRAM/PROJECT STATUS REPORT

1. Program/Project Identification No. 1234	2. Program/Project Title ENERGY AUDIT PROGRAM	3. Reporting Period 7/1/80 through 9/30/80
4. Name and Address ALEXANDRIA UNIVERSITY UTOPE, ALEXANDRIA		5. Program/Project Start Date 4/1/80
		6. Completion Date 3/31/82

7. Approach Changes

☒ None

8. Performance Variances, Accomplishments, or Problems

☐ None

Audit materials (copy of Workbook enclosed) were delivered from the printer and the training of potential energy auditors has begun. The overwhelming number of applicants responding to the announcement for the Training Program slowed up the registration process considerably, and the final arrangements for the training were completed late. The first training session was pushed back three weeks. This may reduce the number of planned audits next quarter.

9. Open Items

☐ None

The position of Program Statistician remains unfilled; qualified professionals do not appear interested in joining a program for such a short duration.

10. Status Assessment and Forecast

☐ No deviation from plan is expected

The number of audits which can be completed next quarter will provide enough of a sample for the annual program evaluation; however, the problem of hiring a temporary statistician may have to be solved by contracting with a consulting firm for such services. This may have an unfavorable impact on costs in the next quarter. Although costs may be higher, the audit analysis and program evaluation task will be completed on schedule.

11. Description of Attachments

☐ None ONE ENERGY AUDIT WORKBOOK

<p>12. Signature of Recipient and Date</p> <p><i>Susan Print</i> 10/15/80</p>	<p>13. Signature of DOE Reviewing Representative and Date</p> <p><i>T. J. Noteworthy</i> 10/30/80</p>
---	---

FIGURE 9

FEDERAL ASSISTANCE PROGRAM/PROJECT STATUS REPORT

PURPOSE

A concise narrative describing the current status of the effort. The report allows Federal assistance recipients to communicate developments, achievements, changes and problems to DOE.

INSTRUCTIONS

- Item 1 – Enter the Federal grant or agreement identification number for the current year as it appears in the official award.
- Item 2 – Enter the program/project official title as it appears in the award and, if applicable, the project identification number.
- Item 3 – Enter the start and completion dates for the current reporting period.
- Item 4 – Enter the name and address of the recipient office responsible for managing the project.
- Item 5 – Enter the official start date of the original agreement.
- Item 6 – Enter the official completion date as of the latest modification.
- Item 7 – Provide a description of any changes from the work plan, including technical changes, the explanation as to why these changes occurred, and what the impact on performance will be. If there were no changes during the reporting period, check the box for "none."
- Item 8 – Include a discussion of accomplishments, problems and/or variances, their causes and the effects on the effort. If no performance variances, accomplishments, nor problems occurred during the reporting period, check "none."
- Item 9 – Discuss any unresolved issues or items that require action by DOE or recipient. If there are no unresolved issues which require action or coordination, check "none."
- Item 10 – Present analysis of program/project status, proposed solutions to problems, and future expectations regarding the project. If no deviations from the plan are forecast, enter a check in the box provided.
- Item 11 – Provide a short list of program/project related attachments. If no attachments accompany the report, check "none."
- Item 12 – The recipient should sign and date the report so that, if questions arise, they can be directed to the appropriate individual.
- Item 13 – The DOE reviewing representative, usually the DOE program manager responsible for monitoring the program, signs and dates the form to indicate it has been reviewed and appears reasonable.

D. Financial Status Report, OMB Standard Form 269

Purpose

The Financial Status Report provides information on the status of the funds for all nonconstruction programs and projects. The report focuses on the Federal share of fund outlays.

General Instructions

Reported costs are requested on an accrual basis. If the recipient's accounting system does not provide costs on an accrual basis, then a best estimate of accrued cost is acceptable.

Specific instructions for completion of the Financial Status Report are provided on the forms. An example of the Financial Status Report follows.

Financial Status Report

Discussion of the Example, Figure 10

Item 7 — The "accrual" block should be marked in accordance with DOE policy on reporting accrued costs.

Item 8 — The dates entered in this space are the same as those entered in Item 5 and Item 6 in the Management Summary Report—4/1/80 to 3/31/81.

Item 9 — The dates entered in this space correspond to the dates shown in Item 3 on the Management Summary Report—7/1/80 to 9/30/80.

Item 10 — Total funds expended on all milestones for the program are reported in this column. The period covered by this report is the second quarter of program activity. First quarter outlays are entered in 10a; the costs for the second quarter are entered in 10b, the non-Federal share is entered in 10f, and the total Federal share to date is entered in 10g. Line items 10h through 10j are zero because no other financial commitments have been made to date. Unliquidated obligations refers to commitments made which will be manifested as incurred costs at a later date (such as orders placed, contracts awarded, or financial agreements which have been made but not acted upon as yet). Line item 10h should show the total amount of unliquidated obligations; 10j should be the difference between 10h and 10i. Line item 10L is the total amount of Federal funds authorized and 10m will be the difference between 10k and L. Since this report sums all milestone costs on a total program basis, column 10(g) is the same as 10(a).

Item 11 — The method of calculating indirect costs, as specified in the Federal assistance instrument, is indicated in this space.

Item 12 — This line allows the recipient to refer to other performance reports for more information.

FIGURE 10

FINANCIAL STATUS REPORT (Follow Instructions on the back)			1. Federal Agency and Organizational Element to which Report is Submitted Department of Energy		2. Federal Grant or Other Identifying Number GR9-0013-7901		OMB Approved No. 00-R0180		Page of 1 1 Pages	
3. Recipient Organization (Name and complete address, including ZIP code) Alexandria University Utope, Alexandria			4. Employer Identification Number DOE 79011		5. Recipient Account Number or Identifying Number 1234		6. Final Report ☐ Yes ☒ No		7. Basis ☐ Cash ☒ Accrual	
			8. Project/Grant Period (See Instructions) From (Month, day, year) 4/1/80 To (Month, day, year) 3/31/82				9. Period Covered by this Report From (Month, day, year) 7/1/80 To (Month, day, year) 9/30/80			
10			STATUS OF FUNDS							
Programs/Functions/Activities			(a) Energy Audit Program	(b)	(c)	(d)	(e)	(f)	TOTAL (g)	
a. Net Outlays previously reported			\$ 150	\$	\$	\$	\$	\$	\$ 150	
b. Total outlays this report period			199						199	
c. Less: Program income credits			0						0	
d. Net outlays this report period (Line b minus line c)			199						199	
e. Net outlays to date (Line a plus line d)			349						349	
f. Less: Non-Federal share of outlays			105						105	
g. Total Federal share of outlays (Line a minus line f)			244						244	
h. Total unliquidated obligations										
i. Less: Non-Federal share of unliquidated obligations shown on line h										
j. Federal share of unliquidated obligations										
k. Total Federal share of outlays and unliquidated obligations			244						244	
l. Total cumulative amount of Federal funds authorized			845						845	
m. Unobligated balance of Federal funds			601						601	
11. Indirect Expense			a. Type of Rate (Place "X" in appropriate box) ☐ Provisional ☒ Predetermined ☐ Final ☐ Fixed		13. Certification I certify to the best of my knowledge and belief that this report is correct and complete and that all outlays and unliquidated obligations are for the purpose set forth in the award documents.				Signature of Authorized Certifying Officer Susan Print Typed or Printed Name and Title Susan Print, Director	
			b. Rate 40% c. Base							
12. Remarks: Attach any explanation deemed necessary or information required by Federal operating agency in compliance with providing legislation. Refer to MSR for more information							Date Report Submitted 10/15/80 Telephone (Area code, number and extension) (044) 689-7970			

INSTRUCTIONS

Please type or print legibly. Items 1, 2, 3, 6, 7, 9, 10d, 10e, 10g, 10i, 10l, 11a, and 12 are self-explanatory, specific instructions for other items are as follows:

<i>Item</i>	<i>Entry</i>	<i>Item</i>	<i>Entry</i>
4	Enter the employer identification number assigned by the U.S. Internal Revenue Service or FICE (institution) code. If required by the Federal sponsoring agency.	10c	Enter the amount of all program income realized in this period that is required by the terms and conditions of the Federal award to be deducted from total project costs. For reports prepared on a cash basis, enter the amount of cash income received during the reporting period. For reports prepared on an accrual basis, enter the amount of income earned since the beginning of the reporting period. When the terms or conditions allow program income to be added to the total award, explain in remarks, the source, amount and disposition of the income.
5	This space is reserved for an account number or other identifying numbers that may be assigned by the recipient.	10f	Enter amount pertaining to the non-Federal share of program outlays included in the amount on line e.
9	Enter the month, day, and year of the beginning and ending of the project period. For formula grants that are not awarded on a project basis, show the grant period.	10h	Enter total amount of unliquidated obligations for the project or program, including unliquidated obligations to subgrantees and contractors. Unliquidated obligations are: Cash basis—obligations incurred but not paid; Accrued expenditure basis—obligations incurred but for which an outlay has not been recorded. Do not include any amounts that have been included on lines a through g. On the final report, line h should have a zero balance.
10•	The purpose of vertical columns (a) through (f) is to provide financial data for each program, function, and activity in the budget as approved by the Federal sponsoring agency. If additional columns are needed, use as many additional forms as needed and indicate page number in space provided in upper right, however, the totals of all programs, functions or activities should be shown in column (g) of the first page. For agreements pertaining to several Catalog of Federal Domestic Assistance programs that do not require a further functional or activity classification breakdown, enter under columns (a) through (f) the title of the program. For grants or other assistance agreements containing multiple programs where one or more programs require a further breakdown by function or activity, use a separate form for each program showing the applicable functions or activities in the separate columns. For grants or other assistance agreements containing several functions or activities which are funded from several programs, prepare a separate form for each activity or function when requested by the Federal sponsoring agency.	10j	Enter the Federal share of unliquidated obligations shown on line h. The amount shown on this line should be the difference between the amounts on lines h and i.
10a	Enter the net outlay. This amount should be the same as the amount reported in Line 10a of the last report. If there has been an adjustment to the amount shown previously, please attach explanation. Show zero if this is the initial report.	10k	Enter the sum of the amounts shown on lines g and j. If the report is final the report should not contain any unliquidated obligations.
10b	Enter the total gross program outlays (less rebates, refunds, and other discounts) for this report period, including disbursements of cash realized as program income. For reports that are prepared on a cash basis, outlays are the sum of actual cash disbursements for goods and services, the amount of indirect expense charged, the value of in-kind contributions applied, and the amount of cash advances and payments made to contractors and subgrantees. For reports prepared on an actual cash disbursements, the amount of indirect expense incurred, the value of in-kind contributions applied, and the net increase (or decrease) in the amounts owned by the recipient for goods and other property received and for services performed by employees, contractors, subgrantees, and other payees.	10m	Enter the unobligated balance of Federal funds. This amount should be the difference between lines k and i.
		11b	Enter rate in effect during the reporting period.
		11c	Enter amount of the base to which the rate was applied.
		11d	Enter total amount of indirect cost charged during the report period.
		11e	Enter amount of the Federal share charged during the report period. If more than one rate was applied during the project period, include a separate schedule showing bases against which the indirect cost rates were applied, the respective indirect rates the month, day, and year the indirect rates were in effect, amounts of indirect expense charged to the project and the Federal share of indirect expense charged to the project to date.

E. Technical Reports

Purpose

Technical engineering, and scientific knowledge acquired in the performance of DOE supported efforts is communicated to DOE in Technical Reports. Not all DOE assistance recipients generate technical reports. A number of grant programs do not solicit technical reports; generally, this requirement pertains to research and development activities. The Federal Assistance Reporting Checklist will include a schedule for technical reports if they are requested. The information received by DOE program managers and government technical representatives serves as input to DOE program management and to DOE's Technical Information Center (TIC) at Oak Ridge, Tennessee.

General Instructions

The *Technical Report* provides a technical accounting of work performed and results achieved. Although research, development, and demonstration (RD&D) efforts usually yield annual technical progress reports and a final technical report, some recipients may report more frequently. The Federal Assistance Reporting Checklist (described on page 4) will indicate how often technical reports are needed in each assistance award.

A *Disposition of Reports—Form DOE 427* ("University-Type Contractor's Recommendation for Disposition of Scientific and Technical Document") accompanies each technical report from universities, state/local governments, and other non-profit organizations. The *Disposition of Reports—Form DOE 426* ("Major Contractor's Recommendation for Disposition of Scientific and Technical Document") accompanies reports from profit organizations, foreign organizations, and individuals. These forms provide DOE's Technical Information Center with the recipients' recommendations for technical report distribution. Samples of DOE Forms 427 and 426 are shown on pages 49 thru 52.

Notice of Energy RD&D—Form 538. The DOE Information System and the Smithsonian Scientific Information Exchange (SSIE) receive an announcement from Federal assistance recipients at the outset of RD&D projects. Unless specified in the Federal assistance instrument, all non-weapon system RD&D efforts are identified by the submission of a *Notice of Energy RD&D - Form DOE 538*. Some recipients are asked to update the form every year. The Federal Assistance Reporting Checklist will indicate the number of submissions needed. A sample of Form DOE 538 is provided on pages 53 thru 56.

Specific Instructions

Review of Drafts. Unless otherwise specified in the grant or agreement, the recipient will submit *drafts* of reports to the DOE program manager and the government technical representative. Each copy should be labeled "Draft." If the recipient receives no response from DOE within three weeks, the report can then be submitted in final form.

Report Numbering. A standard report code system has been established for technical information reporting. Specifics on the numbering system will be available in the Federal assistance instrument or from the Technical Information Center.

Cover and Title Pages. The following information should appear on the cover and title page of each report.

Classification (if specified in the agreement)

DOE Report Number.

Report Title and Subtitle, if any.

Type of Report and Period covered.

Name(s) of Author(s).

Date of Report (month and year).

Agreement or Grant Number.

Credit as follows:

Prepared for U.S. Department of Energy

Assistant Secretary for _____

Office of _____

Notices. The following notice should appear on the inside front cover or title page of each report.

"DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States nor any agency thereof, nor any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for any third party's use or the results of such use of any information, apparatus, product, or process disclosed in this report, or represents that its use by such third party would not infringe privately owned rights."

When appropriate, the following should appear on the front cover.

"PATENT STATUS

This technical report is being transmitted in advance of DOE patent clearance and no further dissemination or publication shall be made of the report without prior approval of the DOE Patent Counsel."

"TECHNICAL STATUS

This technical report is being transmitted in advance of DOE review and no further dissemination or publication shall be made of the report without prior approval of the DOE project/program manager."

Reports Prepared for Submission to DOE. Each report of scientific, technical, and engineering information should begin with a statement of the original objectives of the project and a concise summary of the progress achieved during the reporting period toward those objectives. The body of the report should contain a full account of progress, problems encountered, plans for the next reporting period, and an assessment of the prospects for future progress. The author(s) of the report should clearly identify technical factors which impact—either positively or negatively—on plans for achieving the objectives on schedule and within the funds available. The report should include sufficient detail to allow the work to be reproduced by others. Each report should include a thorough account of activities aimed at the utilization of project results, e.g., investigations of user needs, work or collaboration with potential users, and activities to disseminate project results. Also included should be discussion of how these activities have affected the course of the project. A separate section of the report could appropriately be devoted to utilization activities.

Scientific and technical reports should not include administrative, managerial, or fiscal information unsuitable for wide dissemination. They should not include proposals for further support. Such proposals should be submitted separately to protect their privacy.

A DOE Scientific, Technical and Engineering Publications Handbook is available upon request from the Technical Information Center, Oak Ridge, Tennessee, providing detailed instructions in the preparation and publication of technical information for DOE.

Reports Prepared for Public Release. All technical reports subject to public release shall receive patent review. Copies of the proposed report should be provided to DOE for pre-publication review and necessary clearances. All articles and papers should be formatted as required by the particular journal and the following statement must accompany each article.

"The submitted manuscript has been authored by a contractor (grantee) of the U.S. Government under agreement (grant) No.____. Accordingly, the U.S. Government retains a non-exclusive, royalty-free license to publish or reproduce the published form of this contribution, or allow others to do so, for U.S. Government purposes."

In addition, the following credit line should appear on each published article.

"Work supported by the U.S. Department of Energy, Assistant Secretary for_____, Office of _____, under agreement (grant) No.____."

Like all Federal agencies, DOE recognizes the importance of page charges in supporting professional journals and will honor all page charges as a legitimate expense of the RD&D program. Therefore contractors and grantees should budget for these expenses. Furthermore, the author can purchase up to 100 reprints with DOE funds for professional use. Two copies of each reprint must be sent to TIC, one copy to the DOE contracting officer, and five copies to the responsible program manager.

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U.S. DEPARTMENT OF ENERGY
UNIVERSITY-TYPE CONTRACTOR AND GRANTEE RECOMMENDATIONS
FOR DISPOSITION OF SCIENTIFIC AND TECHNICAL DOCUMENT

See Instructions on Reverse Side

1. DOE Report No. _____	3. Title _____
2. Contract No. _____	
4. Type of Document ("X" one) ☐ a. Scientific and technical report ☐ b. Conference paper: Title of conference _____ Date of conference _____ Exact location of conference _____ Sponsoring organization _____ ☐ c. Other (Specify Thesis, Translations, etc.) _____	
5. Recommended Announcement and Distribution ("X" one) ☐ a. DOE's normal announcement and distribution procedures may be followed. ☐ b. Make available only within DOE and to DOE contractors and other U.S. Government agencies and their contractors.	
6. Reason for Recommended Restrictions _____	
7. Patent Information Does this information product disclose any new equipment, process or material? ☐ Yes ☐ No Has an invention disclosure been submitted to DOE covering any aspect of this information product? If so, identify the DOE (or other) disclosure number and to whom the disclosure was submitted. ☐ Yes ☐ No Are there any patent related objections to the release of this information product? If so, state these objections. _____ _____	
8. Submitted by _____ Name and Position (Please print or type) Organization _____ Signature _____ Date _____	

FOR DOE USE ONLY

9. Patent Clearance ("x" one)
- ☐ a. DOE patent clearance has been granted by responsible DOE patent group.
- ☐ b. Report has been sent to responsible DOE patent group for clearance.
- ☐ c. Patent clearance not required.

FIGURE 11

INSTRUCTIONS

Who uses this form: DOE contract administrators will designate the DOE contractors and grantees who are to use this form. Generally speaking, it will be used by educational institutions and other "not for profit" institutions. DOE national laboratories and other major contractors will generally use the longer Form DOE-426.

When to use: DOE contractors are required under their contracts to transmit specified types of documents to the DOE. Some, but not all, of these are transmitted by DOE contract administrators to the DOE Technical Information Center (TIC) and may be incorporated into the DOE technical information documentation system. Types of documents that will be transmitted to TIC are identified in instructions that the contractor receives from his contract administrator. Each such document is to be accompanied by one copy of this transmittal form recommending to TIC appropriate announcement and distribution of the document. Documents which the contractor may be required to submit to the DOE under his contract but which are not of the type to be transmitted to TIC, e.g., contract proposals, should not be accompanied by a copy of this transmittal form.

Where to send: Send the document and the attached Form DOE-427 to the DOE contract administrator for transmittal to TIC unless the DOE contract administrator specifies otherwise.

Item instructions:

Item 1. The DOE report number will be constructed as follows and will consist of a prefix and a suffix. The prefix will consist of code DOE and seven characters for the applicable contract number (two alphabetic and five numeric). The suffix is a sequential number assigned by the contractor generating the report. Slashes and hyphens will be used as shown in the examples in the next column.

Reports issued in more than one binding or reissued as revisions or later editions will be identified by adding the additional suffixes to the basic number: e.g., Rev., Revision; Vol., Volume; Pt., Part; Add., Addendum; Ed., Edition.

Examples

If the contract number is DE-AC01-78ET01834.M002, the reports generated will be numbered:

DOE/ET/01834-1

DOE/ET/01834-2

DOE/ET/01834-2 Rev. 1

(The modification number, if any, normally shown as .M002, etc., following the basic five-digit number, is not used in the report number.)

Item 2. Self-explanatory.

Item 3. Give title exactly as on the document itself.

Item 4. Self-explanatory.

Item 5. The "normal announcement and distribution procedures" for unclassified documents may include abstracting in *Energy Research Abstracts (ERA)* and distribution to appropriate TID-4500 ("Standard Distribution of Unclassified Scientific and Technical Reports") addressees, to libraries that through purchase of microfiche maintain collections of DOE reports, and to the National Technical Information Service (NTIS) for sale to the public. Check 5b if there is need for limiting announcement and distribution procedures described above.

Item 6. Self-explanatory.

Item 7. Self-explanatory.

Item 8. Enter name of person to whom inquiries concerning the recommendations on this form may be addressed.

Item 9. DOE contract administrator or patent group representative should check *a*, *b*, or *c*, and forward this form and document to:

USDOE-TIC

P.O. Box 62

Oak Ridge, TN 37830

U.S. DEPARTMENT OF ENERGY
DOE AND MAJOR CONTRACTOR RECOMMENDATIONS FOR
DISPOSITION OF SCIENTIFIC AND TECHNICAL DOCUMENT

See Instructions on Reverse Side

1. DOE Report No.	2. Contract No.	3. Subject Category No.
4. Title		
5. Type of Document ("x" one)		
☐ a. Scientific and technical report		
☐ b. Conference paper: Title of conference _____		
Date of conference _____		
Exact location of conference _____ Sponsoring organization _____		
☐ c. Other (Specify Thesis, Translations, etc.) _____		
6. Copies Transmitted ("x" one or more)		
☐ a. Copies being transmitted for standard distribution by DOE-TIC.		
☐ b. Copies being transmitted for special distribution per attached complete address list.		
☐ c. Two completely legible, reproducible copies being transmitted to DOE-TIC.		
☐ d. Twenty-seven copies being transmitted to DOE-TIC for TIC processing and NTIS sales.		
7. Recommended Distribution ("x" one)		
☐ a. Normal handling (after patent clearance): no restraints on distribution except as may be required by the security classification.		
Make available only ☐ b. to U.S. Government agencies and their contractors. ☐ c. within DOE and to DOE contractors.		
☐ d. within DOE. ☐ e. to those listed in item 13 below.		
☐ f. Other (Specify) _____		
8. Recommended Announcement ("x" one)		
☐ a. Normal procedure may be followed. ☐ b. Recommend the following announcement limitations:		
9. Reason for Restrictions Recommended in 7 or 8 above.		
☐ a. Preliminary information. ☐ b. Prepared primarily for internal use. ☐ c. Other (Explain)		
10. Patent Clearance		
Does this information product disclose any new equipment, process or material? ☐ Yes ☐ No		
Has an invention disclosure been submitted to DOE covering any aspect of this information product? If so, identify the DOE (or other) disclosure number and to whom the disclosure was submitted. ☐ Yes ☐ No		
Are there any patent related objections to the release of this information product? If so, state these objections.		
("x" one) ☐ a. DOE patent clearance has been granted by responsible DOE patent group.		
☐ b. Document has been sent to responsible DOE patent group for clearance.		
11. National Security Information (For classified document only; "x" one)		
Document ☐ a. does ☐ b. does not contain national security information other than restricted data.		
12. Copy Reproduction and Distribution		
Total number of copies reproduced _____ Number of copies distributed outside originating organization _____		
13. Additional Information or Remarks (Continue on separate sheet, if necessary)		
14. Submitted by (Name and Position) (Please print or type)		
Organization _____		
Signature _____		Date _____

FIGURE 12

INSTRUCTIONS

Who uses this form: All DOE contractors except those specifically instructed by their DOE contract administrator to use the shorter Form DOE-427.

When to use: Submit one copy of this form with each document that is sent to the DOE Technical Information Center (TIC) in accordance with the requirements of DOE Order 1340.

Where to send: Forward this form and the document(s) to:

USDOE-TIC
P.O. Box 62
Oak Ridge, TN 37830

Item instructions:

Item 1. The DOE report number will be constructed as follows:

(a) Major DOE laboratories and contractors that have been assigned TIC-approved codes will use their approved system, e.g., BNL, BMI, PNL. Sequential numbers will be assigned to each report by the originating laboratory or contractor.

(b) Contractors that do not have TIC-approved identifying codes will create their unique numbers by (1) identifying the report with code DOE, (2) selecting the basic seven characters (two alphabetic and five numeric) for the applicable contract number, and (3) adding sequential numbers for each report generated under the contract. Slash marks and hyphens should be applied as shown in the examples below.

Reports issued in more than one binding or reissued as revisions or later editions will be identified by adding the additional suffixes to the basic number, e.g., Rev., Revision; Vol., Volume; Pt., Part; Add., Addendum; Ed., Edition.

Examples

Major laboratories and contractors with approved codes
BNL-1874

Contractors without approved codes

For Contract DE-AC01-78ET01834.M002

DOE/ET/01834-1

DOE/ET/01834-2

DOE/ET/01834-2 Rev. 1

(The modification number, if any, normally shown as .M002, etc., following the basic five-digit number, is not used in the report number.)

Item 2. Self-explanatory.

Item 3. Insert the appropriate subject category from TID-4500 ("Standard Distribution for Unclassified Scientific and Technical Reports") or M-3679 ("Standard Distribution for Classified Scientific and Technical Reports") for both classified and unclassified documents, whether or not printed for standard distribution.

Item 4. Give title exactly as on the document itself unless title is classified. In that case, omit title and state "classified title" in the space for item 4.

Item 5. Self-explanatory.

Item 6. a. If box *a* is checked, the number of copies specified for the appropriate category or categories in M-3679 or TID-4500 will be forwarded to TIC for distribution.

b. If box *b* is checked, a complete address list must be provided TIC.

c. If box *c* is checked, at least one copy will be original ribbon or offset and be completely legible. A clear carbon copy is acceptable as a second reproducible copy.

d. If box *d* is checked, 27 copies will be forwarded to TIC, 2 will be retained for processing and 25 will be sent to NTIS for public availability.

Item 7. If box *a* is checked for an unclassified document, it may be distributed by TIC (after patent clearance) to addressees listed in TID-4500 for the appropriate subject category, to libraries in the U.S. and abroad which through purchase of microfiche maintain collections of DOE reports, and to the National Technical Information Service for sale to the public.

If box *a* is checked for a classified document, it may be distributed by TIC to addressees listed in M-3679 for the appropriate subject category.

If a box other than *a* is checked, the recommended limitation will be followed unless TIC receives other instructions from the responsible DOE program division.

Box *f* may be checked in order to specify special instructions, such as "Make available only as specifically approved by the program division."

Item 8. a. Announcement procedures are normally determined by the distribution that is to be given a document. If box *a* in item 7 is checked for an unclassified document, it will normally be listed in the weekly "Accessions of Unlimited Distribution Reports by TIC" (TID-4401) and may be abstracted in *Energy Research Abstracts (ERA)*.

A classified document, or an unclassified document for which box *b*, *c*, *d*, *e*, or *f* in item 7 is checked, may be cited with appropriate subject index terms in *Abstracts of Limited Distribution Reports (ALDR)*.

b. If the normal announcement procedures described in 8a are not appropriate, check 8b and indicate recommended announcement limitations.

Item 9. Self-explanatory.

Item 10. It is assumed that there is no objection to publication from the standpoint of the originating organization's patent interest. Otherwise explain in item 13.

Item 11. If box *a* is checked, the document cannot be made available to Access Permit holders (Code of Federal Regulations, 10 CFR, Part 25, subpart 25.6); if box *b* is checked, TIC will determine whether or not to make it available to them.

Item 12. Self-explanatory.

Item 13. Self-explanatory.

Item 14. Enter name of person to whom inquiries concerning the recommendations on this form may be addressed.

U.S. DEPARTMENT OF ENERGY
NOTICE OF ENERGY RD&D PROJECT

FORM DOE 538
(1/78)

APPROVED FOR USE BY
SMITHSONIAN SCIENCE INFORMATION EXCHANGE

FORM APPROVED
OMB NO. 38 R-0190

1. DESCRIPTIVE TITLE OF WORK				
2. PERFORMING ORGANIZATION CONTROL NUMBER			3. CONTRACT, GRANT OR PURCHASE ORDER NUMBER	
4. CONTRACTOR'S PRINCIPAL INVESTIGATOR/PROJECT MANAGER AND ADDRESS WHERE WORK IS PERFORMED				
a. NAME (Last, First, MI) _____ PHONE _____				
b. BUSINESS ADDRESS: STREET _____				
CITY _____ STATE _____ ZIP _____				
5. a. NAME OF PERFORMING ORGANIZATION				
(Organization) _____ (Department) _____				
b. MAILING ADDRESS (If Different From 4B)				
c. TYPE OF ORGANIZATION PERFORMING THE WORK (Enter applicable code from instructions). 				
6. SUPPORTING ORGANIZATION				
a. DOE PROGRAM DIVISION OR OFFICE (Full Name) _____				
b. TECHNICAL MONITOR (Last, First, MI) _____				
c. ADDRESS (If Different from DOE Hqs) _____				
d. ADMINISTRATIVE MONITOR (Last, First, MI) _____				
7. PROJECT SCHEDULE				
(a) START DATE _____ (Month) _____ (Year) _____ (b) EXPECTED COMPLETION DATE _____ (Month) _____ (Year) _____				
8. a. FUNDING OPERATING AND CAPITAL EQUIPMENT OBLIGATION (In Thousands of Dollars)				
FUNDING ORGANIZATION(S)		APPROXIMATE CUMULATIVE PRIOR FISCAL YEARS	CURRENT FY	
1. DOE				
2.				
3.				
b. DOE BUDGETING AND REPORTING CLASSIFICATION CODE _____				
9. DIRECT SCIENTIFIC AND TECHNICAL MANPOWER				
		PROFESSIONAL	GRAD. STUDENTS	OTHER
NUMBER				
EQUIVALENT PERSONYEARS				

DETACH HERE BEFORE SUBMITTING

FIGURE 13

INSTRUCTIONS
NOTICE OF ENERGY RD&D PROJECT

NOTICE

If in the past six months you have completed an Inventory of Energy Research Development and Demonstration form or a Form DOE-294, Inventory of Federal Energy Related Environment and Safety Research or a programmatic office project description, complete only the new data element on this form and send it and a copy of the form completed earlier to Department of Energy, Technical Information Center, Post Office Box 62, Oak Ridge, TN 37830.

1. DESCRIPTIVE TITLE OF WORK

Be as specific as possible. Since an index in the published inventory is generated from words in the titles, use words that are descriptive of the work done. Please limit the length to a maximum of 100 characters plus spaces.

Example: "Design of a Better Mousetrap" not "Pest Control"

2. PERFORMING ORGANIZATION CONTROL NUMBER

A unique internal identification number that is used by the performing organization to facilitate the control of projects. If the organization uses no number, this space will be left blank.

3. CONTRACT, GRANT OR PURCHASE ORDER NUMBER

The DOE contract or grant number under which the work is being performed. For 189-type projects, the master contract number should be inserted. Inter-Agency Agreements use the IAA number.

4. CONTRACTOR'S PRINCIPAL INVESTIGATOR/PROJECT MANAGER AND MAILING ADDRESS WHERE WORK IS PERFORMED

Name of person chiefly responsible for the performance of the project or who is most familiar with this project. Persons should be permanently employed by organization (not summer employees or graduate students). Give telephone number, including area code and extension (if you have FTS number, please include it), at which the principal investigator can be reached. The address should be for the person at the specific facility doing the work.

5. A. NAME OF ORGANIZATION

In large organizations that have several levels of subdivision, or subsidiaries, include the name of the smallest autonomous unit performing the research. For universities, include the name of the specific school, departments, etc., where the research is being done.

Examples: "Halliburton Company, Otis Engineering", "University of Maryland, Institute of Fluid Dynamics and Applied Mathematics", "U.S. Dept. of Defense, Air Force Cambridge Research Laboratory"

B. MAILING ADDRESS

Provide the mailing address if different from that given in Item 4.

C. TYPE OF ORGANIZATION PERFORMING THE WORK

From the following list, select the description that best characterizes the research organization doing this study and enter the two-letter code on the form.

IN - Private industry
NP - Foundation or laboratory not operated for profit
TA - Trade or professional association
US - Federal agency
CU - College, university or trade school

ST - Regional, state or local government facility
EG - Electric or gas utility
FF - Federally funded R&D centers or laboratory operated for an agency of the U. S. Government
XX - Other (define on questionnaire)

6. SUPPORTING ORGANIZATION

List the DOE division sponsoring the work; the DOE technical representative (including phone number) who directly monitors the contracted work; his address if different from DOE Headquarters; and the specific field office (or Headquarters) administering the grant or contract.

7. PROJECT SCHEDULE

If current activity is a continuation of a previous project, the start date should indicate the initiation of the prior work. The expected completion date should also be entered. If the project is a continuing activity with no set completion date, enter N/A for not applicable.

8. FUNDING

If funding is received from more than one organization, please list each organization separately in the blank space provided. Approximate cumulative costs must relate to start of the project as defined in Item 7. Include those capital costs directly attributable to this project.

9. MANPOWER

Enter direct scientific and technical manpower for the current year only. Do not include management, secretarial, and administrative support. "Other" refers to technicians. Only graduate students employed by the contractor should be included.

10. SUMMARY OF WORK <i>(Limit to 200 words or less — include a description, objective, approach and a final product expected.)</i>		
11. PROGRESS SINCE LAST REPORT <i>(Limit to 100 words.)</i>		
12. List publications in the last year that are available to the public which have resulted from the product. <i>(Please give a complete bibliographic citation. Use additional sheets if necessary.)</i>		
13. GENERAL TECHNOLOGY CATEGORIES <i>(Enter applicable code or codes from instructions.)</i> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div>☐ ☐</div> <div>☐ ☐</div> <div>☐ ☐</div> <div>☐ ☐</div> <div>☐ ☐</div> <div>☐ ☐</div> <div>☐ ☐</div> <div>☐ ☐</div> <div>☐ ☐</div> <div>☐ ☐</div> </div>		
14. PHASE OF RD&D <i>(Enter Project Percentage in Applicable Boxes)</i> a. ☐ Basic Research b. ☐ Applied Research c. ☐ Technology Development d. ☐ Engineering Development e. ☐ Demonstration	15. KEYWORDS: <i>(Minimum of 5)</i> <div style="height: 80px;"></div>	
16. A. RESPONDENT'S NAME & ADDRESS <div style="height: 40px;"></div>	B. PHONE NO. <div style="display: flex; justify-content: space-between;"> <div style="width: 80%;"><div style="border: 1px solid black; height: 15px; width: 100%;"></div></div> <div style="width: 20%;"><div style="border: 1px solid black; height: 15px; width: 100%;"></div></div> </div>	C. DATE <div style="border: 1px solid black; height: 30px; width: 100%;"></div>

10. SUMMARY OF WORK

Enter a Project Summary (limit 200 words) covering the following:

Objective(s). State project objectives, quantifying where possible (e.g., "demonstrate 95% recovery of sulfur from raw gas with molten salt recycling at a rate of one gallon per minute").

Approach. Describe the technical approach to the project, i.e., how the work is to be done.

Expected Product/Results. Describe the final products or results expected from the project and their importance and relevance.

11. PROGRESS SINCE LAST REPORT

Describe milestones (recognizable project-important events) achieved or slipped since the last report. If this is the first report on this project, this space may be left blank.

12. PUBLICATIONS AVAILABLE TO THE PUBLIC

List publications available to the public that have resulted directly from this research. List only the publications for the past 12 months. Give author(s), title, journal reference, or report number, and source from which report or publication may be secured if different from author (e.g., GPO, NTIS, TIC, etc.).

13. GENERAL TECHNOLOGY CATEGORY

Enter the letter and number for the general technology category supported by your project as shown below. Multiple numbers may be entered when the project supports more than one category.

The Multi-Technology category (Item F1) should be used only if your project has a pervasive application or influence on all, or nearly all, technology areas. Examples: R&D on instrumentation, materials research, meteorological research.

The General Science category (Item F2) should be used only if your project, or some portion of it, is basic in nature and not directly related to any specific energy technology.

Insert one or more of the following category codes:

Fossil Fuels (including syntuel)

- A1 - Fossil Fuels (general)
- A2 - Coal Conversion - Liquefaction
- A3 - Coal Conversion - Gasification
- A4 - Oil and Gas
- A5 - Oil Shale
- A6 - Biomass - Pyrolysis

Geothermal

- C1 - Geothermal (general)
- C2 - Hydrothermal
- C3 - Geopressurized
- C4 - Hot Dry Rock

Conservation

- E1 - Conservation (general)
- E2 - End Use
- E3 - Improved Conversion Efficiency
- E4 - Energy Storage

Nuclear

- B1 - Nuclear (general)
- B2 - Fission - Converters
- B3 - Fission - Breeders
- B4 - Fusion - Magnetic
- B5 - Fusion - Laser

Solar

- D1 - Solar (general)
- D2 - Direct Heat/Cool
- D3 - Electric
- D4 - Ocean, Wind
- D5 - Biomass

Other

- F1 - Multi-Technology
- F2 - General (or Basic) Science
- F3 - Medical Applications of Nuclear Technology
- F4 - Hydroelectric
- F5 - Other (identify on the form)

14. PHASE OF WORK

For each applicable energy, enter the percentage of the total work efforts to indicate the phase of RD&D that is supported by this project using the following definitions:

Basic Research -

Systematic, fundamental study directed toward fuller scientific knowledge or understanding of subjects bearing on national energy needs.

Applied Research -

Systematic study directed toward fuller scientific knowledge or understanding for direct use in fulfilling specific energy requirements.

Technology Development -

Systematic use of the knowledge and understanding gained from research to achieve technical feasibility and to gauge economic and environmental potential of energy concepts, processes, materials, devices, methods, and subsystems.

Engineering Development -

Systematic use of the knowledge and understanding gained from the research and technology development to achieve the detailed design, construction, and test for performance, producibility, and reliability of energy system prototypes and pilot plants.

Demonstration -

Verification of economic and environmental viability for commercial application, through design, construction, test, and evaluation, of large-scale energy systems in operational circumstances.

15. KEY WORDS

A minimum of five key words describing the technical aspects of the project.

16. RESPONDENT

Name and address of person filling out the questionnaire. Give telephone number, including extension (if you have FTS number, please include it) at which person can be reached. Record the date the form was completed. The information in Item 16 will not be published.

Appendix A

Glossary

Accrual Basis of Accounting — Recognizes revenues in the period earned and recognizes cost in the period incurred, regardless of when payment is received or made. (DOE Order 2100—Glossary of Financial Terms)

Accrued Cost — Encompasses the concepts of accrued expenditures and applied costs, both of which are defined below. It is the formal recognition of the incurrence of cost when goods and services are received, produced, consumed or otherwise applied to operations, programs or projects, whether or not cash payment has been made. (DOE Order 2100—Glossary of Financial Terms.)

Accrued Expenditures — Accounting transactions during a given period that reflect liabilities incurred and the need to pay for: a. services performed by employees, contractors, other Government accounts, vendors, carriers, grantees, lessors, and other payees; b. goods and other tangible property received; and c. amounts becoming owed under programs for which no current service or performance is required (such as annuities, insurance claims, other benefit payments, and some cash grants, but excluding the repayment of debt, which is considered neither an obligation nor an expenditure). Expenditures accrue regardless of when cash payments are made; whether invoices have been rendered; or in cases of constructive receipt, whether goods or other tangible property have been physically received. (DOE Order 2100—Glossary of Financial Terms.)

Accrued Income — The sum of (a) earnings during a given period from (1) services performed by the recipient, and (2) goods and other tangible property delivered to purchasers, and (b) amounts becoming owed to the recipient for which no current services or performance is required by the recipient. (OMB A-110, Attachment G.1.b.)

Applied cost—The value (purchase price) of goods and services used, consumed, given away, lost or destroyed within a given period of time, regardless of when ordered, received, or paid for. For operating programs, applied costs represent the value of resources consumed or used. For procurement and manufacturing programs, applied costs represent the value of material received or produced. For capital outlay programs, applied costs represent the value of work put in place. For loan activities, applied cost represents assets acquired (even though no resource has been consumed). In the case of appropriations for programs that are essentially operating in nature, equipment is included in applied cost when it is placed in use. For all programs, accrued annual leave is included in applied cost when the leave is earned, rather than when taken, even though it may be unfunded at the time; and, depreciation cost and other unfunded costs are included where appropriate (DOE Order 2100—Glossary of Financial Terms.)

Baseline — A quantitative expression of projected costs, schedule or technical progress to serve as a base or standard for measurement during the performance of an effort; the established plan against which the status of resources and the progress of a project can be measured.

Budget Period — A continuing grant may identify a several year project period, however, the grant is funded in annual increments called budget periods. A budget or cost plan shows planned project costs for one twelve-month budget period.

Ceiling — The negotiated or stated limit applicable to obligations and costs which are set by legislation or arrangement and cannot be exceeded. (DOE Order 2100—Glossary of Financial Terms.)

Change in Scope — A change in the objectives, work plan, or schedule resulting in material difference from terms specified in the award. Under certain conditions (normally stated in the agreement), a change in the application of resources might constitute a change in scope. (UCRS Volume I.)

Cooperative Agreements — The legal instrument to reflect a relationship between the Federal Government and a State government or other recipient whenever the principal purpose of the relationship is the transfer of money, property, services, or anything of value to the State government or other recipient to accomplish a public purpose of support or stimulation authorized by Federal Statute. When DOE enters into a cooperative agreement, substantial involvement is anticipated between DOE, acting for the Federal Government, and the State government or other recipient during performance of the contemplated activity. (Paraphrased from DOE Assistance Regulations, 600.32d.)

Cost Sharing and Matching — In general, cost sharing and matching represent that portion of project costs not borne by the Federal Government. (ERDA Federal Assistance Manual, 6th Draft, 4/77.)

Cost Variance — The difference between the budgeted cost and the actual cost for work performed. It indicates whether costs are running more or less as planned. On the Management Summary Report and the Program/Project Status Report, the cost variance is the difference between planned and actual costs for a specified period of time.

Direct Cost — Cost readily identified with particular activities. Items of direct cost are incurred specifically to carry out the agreement, for example, materials consumed in the effort, compensation of employees for time and effort devoted to the execution of the program. (Paraphrased from Federal Management Circular 74.4, Attachment A.)

Educational Institution — Any non-profit post secondary institution which is recognized by an appropriate State education authority. Normally such institution will (1) have faculty, (2) offer courses of instruction, and (3) award a degree or certificate upon completion of a specific course of study. (ERDA Federal Assistance Manual, 6th Draft 4/77.)

Federal Assistance — The provision of money, services, or property to a non-Federal recipient for the purpose of supporting or stimulating activities in the national interest. Federal assistance may be Congressionally specified and directed, or may be Congressionally authorized and encouraged within general parameters for specific definition and implementation by a particular component of the Executive Branch. (Paraphrased from ERDA Federal Assistance Manual, 6th Draft, 4/77.)

Federal Assistance Instrument — The legal document which serves to identify the parameters of the effort in a contractual arrangement.

Follow-on Year — An additional 12 month period, immediately succeeding the current budget period in which the program or project activity continues. A follow-on year will usually require the submission of a budget or cost plan and a milestone plan.

Formula Grant — A mathematical calculation is used to determine the amount of the grant. Frequently dollars are awarded based on population in an area.

Grants — A type of legal instrument between the Federal Government and a State or local government or other recipient to transfer money, property, services, or anything of value from the Federal Government to a State or local government or other recipient in order to accomplish a public purpose of support or stimulation authorized by Federal statute, rather than acquisition, by purchase, lease, or barter, of property or services for the direct benefit or use of the Federal Government; and no substantial involvement is anticipated between DOE, acting for the Federal Government, and the State or local government or other recipient during performance of the contemplated activity. (DOE Federal Assistance Regulations, 600.32c.)

Grantee — The recipient who or entity which accepts a grant award and thereby assumes legal and financial responsibility and accountability both for the awarded funds or property and for the performance of the grant-supported activity. (ERDA Federal Assistance Manual, 6th Draft, 4/77.)

Grant Period — The grant period is that period of time beginning on the award date which extends through the expiration date. (ERDA Federal Assistance Manual, 6th Draft, 4/77.)

Government Technical Representative — The DOE person, identified in the Agreement, who is responsible for overall technical monitoring of the program/project, which includes evaluating the project performance, providing technical guidance, reporting on the project status to DOE management, and recommending corrective action when necessary. (Paraphrased from UCRS Volume I.)

Indirect Costs — Costs incurred for a common or joint purpose benefiting more than one objective or program, and not readily assignable to one specific effort. For example, indirect costs which are incurred by educational institutions are usually those for general administration expenses, library expenses, and departmental administration expenses. (Paraphrased FMC 74-4.)

In-Kind Contributions — The value of non-cash items provided by the recipient and non-Federal parties. In-kind contributions may be in the form of real property, nonexpendable personal property, goods and/or services which are directly benefiting and specifically identifiable with the project or program. (Paraphrased from OMB A-102, F.2d.)

Intermediate Events — Detailed events and activities, the completion of which are necessary for and lead to the completion of a milestone. An intermediate event signals the completion of a sub-task crucial to the milestone effort. (Paraphrased UCRS Volume I.)

Local Government — A local unit of government; specifically, a county, municipality, city, town, township, local public authority, special district, intrastate district, council of governments, sponsor group representative organization, and other regional or intrastate government entity, or any agency or instrumentality of a local government exclusive of institutions of higher education, hospitals, and school districts.

Matching Grant — Both the Federal government and the recipient provide funds to the activity based on a formula. Usually, a minimum percentage for a matching share is prescribed by program legislation and the share requirements are included in the grant agreement, Federal government gives "X" dollars if States gives "Y" dollars.

Milestone — An important or critical event that must occur in order to achieve the project objective(s). (Paraphrased UCRS Volume I.)

Non-profit Organization — Any corporation, trust, foundation, trade association, or other institution (1) which is entitled to exemption under Section 501(c) of the Internal Revenue Code or (2) which is not organized for profit and no part of the net earnings of which inure to the benefit of any private shareholder or individual.

Program — An endeavor of considerable scope and enduring in nature as opposed to a project, usually representing some definable portion of the basic agency mission and defined as a line item in the agency budget. (UCRS Volume I.)

Project — An endeavor with a specific objective to be met within prescribed time and dollar limitations and which has been assigned for definition or execution. (UCRS Volume I.)

Project Period — The total time (not to exceed five years) for which the program office administratively approves the project and administratively commits itself to its financial support. Approval of continuation requests will be based on availability of funds, evidence of satisfactory progress, and continued relevance to DOE's sponsoring program office. The project period is divided into several budget periods. The total project period includes the project period as initially awarded and any extension thereto. A continuing grant encompasses the total project period.

Recipient — An inclusive term for all agencies, governments, other organizations, and individuals receiving Federal assistance in the form of grants or cooperative agreements from the Department of Energy.

Task — Any definable unit of work. It must have an identifiable start and ending and usually produces some recognizable result. (UCRS Volume I.)

Technical Information Dissemination — The preparation and widespread distribution of technical information and data developed through the energy program by the DOE Technical Information Center to encourage broad public knowledge, understanding, and application.

Work Breakdown Structure (WBS) — A product-oriented task hierarchy of all work to be performed in accomplishing project objectives. The product(s) may be hardware, software, support services, tests, documentation, or other quantified elements of the project objectives. The task hierarchy has, as its first level, the major end-item of the project. The successive levels provide increasingly detailed definition of the individual work tasks that contribute to the production of end items. The scope and number of levels in the task hierarchy depends on the scope and complexity of the individual project. (Paraphrased from UCRS Volume I.)

Work Breakdown Structure Element — Any one of the individual items or entries in the WBS hierarchy, regardless of level. (UCRS Volume I.)

Appendix B

Sample Clause for Federal Assistance Instruments

Article — Reporting Requirements

The Federal assistance recipient shall prepare and submit (postage prepaid) the plans and reports indicated on the Federal Assistance Reporting Checklist, to the addresses and in the number of copies designated on the checklist. Preparation of the specified plans and reports shall be in accordance with the "DOE Uniform Contractor Reporting System Guidelines Volume II," copy provided at time of award. The level of detail the recipient provides in the plans and reports shall be commensurate with the scope and complexity of the task and as delineated in Block 3 - Reporting Requirements, and Block 4 - Special Instructions, or in a particular contract clause. The prime recipient shall be responsible for acquiring data from any subcontractors, or subrecipients to ensure that data submitted is compatible with the data elements that the prime recipients are responsible for submitting to DOE. Plans and reports submitted in compliance with this provision are in addition to any other reporting requirements of this Federal Assistance Instrument.

Appendix C

Discussion of the Example, Figure 14, Federal Assistance Cost Plan

Item 3 — Planning Period. The dates in this space correspond to the twelve month planning period shown on the Milestone Plan, 4/1/80 through 3/31/81. The dates in *Item 5 — Program/Project Start Date* and *Item 6 — Program/Project Completion Date* correspond to entries #5 and #6 on the Milestone Plan.

Item 7 — Function/Activity I.D. Number. The entries in this column should correspond to the alphanumeric identifiers given to Work Breakdown Structure elements. These numbers will identify the same WBS elements on all planning forms and status reports. For Example, 1.1 continues to refer to the Milestone "Determine Performance Requirements."

Item 8 — Function/Activity Description. Short titles for the milestone tasks are entered in this column. Please note DOE funds are qualified at the bottom of the form; this line is not added into the sum of each column.

Item 9 — Cost Category. This example shows project costs estimated quarterly for each milestone task. Planning costs by milestone tasks is one alternative method of budgeting. An example of budgeting costs by cost categories is shown on page 27.

Item 12 — Planned Current Budget Period. The amounts shown in the columns are quarterly figures for each milestone. The schedule is identified in twelve blocks with the first initial in the months' name and in quarters above. In the example, "82" entered in June for line item 1.1 indicates \$82 hundred budgeted for that milestone task in the first quarter.

Item 13 — Planned Future Budget Period. The figures entered in column a are annual budget estimates for the second program year.

Item 18 — Signature of Government Reviewer and Date. The DOE program manager responsible for monitoring the program should sign and date the plan, attesting that the plan has been reviewed and appears reasonable.

PAGE 1 OF 1

FIGURE 14

Discussion of the Example, Figure 15, Federal Assistance Cost Plan

This Cost Plan is the most detailed version, providing a monthly breakout of planned costs by milestones and by cost categories. This method of budgeting can be helpful when planning a very elaborate and costly program. Budgeting by monthly increments in this detail should only be requested by DOE program managers when absolutely necessary.

Item 8 — Function/Activity Description. In this column, a brief description of the activity is entered, for example, "Analysis and Evaluation." Please note the last line item is identified as "Audit Program" to show a cost which is not broken out among the milestone efforts, but designated as a program cost. This cost is entered in this example to show the flexibility of the form. This entry indicates the equipment cost is shared by all milestone tasks, and would be difficult to distribute the cost equitably among the milestone tasks over twelve months. A comment concerning this line item entry has been included in *Item 16 — Remarks*.

Item 9 — Cost Category. Please note the last line entry identifies the DOE portion of total funds. This line is *not* added into the sum of the columns.

Item 12 — Planned Current Budget Period. The figures entered in the twelve columns represent monthly planned costs per line item. Each line item is a separate cost category relating to one milestone effort. This breakout affords detailed cost control based on careful planning.

Item 13 — Planned Future Budget Period. The figures entered in columns a, b, and c are *annual* budget estimates for up to three follow-on years. For example, in Figure 15, the annual estimated cost for personnel on Milestone Activity "1.2 - Audit Materials", for the next budget year, is 10 hundred (the dollars are expressed in the same unit as indicated in *Item 12 - Planned Current Budget Period*).

U.S. DEPARTMENT OF ENERGY
FEDERAL ASSISTANCE COST PLAN

PAGE 1 OF 1

1. Program/Project Identification No 1234				2. Program/Project Title ENERGY AUDIT PROGRAM												3. Planning Period 4/1/80 through 3/31/81			
4. Name and Address ALEXANDRIA UNIVERSITY UTOPE, ALEXANDRIA																5. Program/Project Start Date 4/1/80			
																6. Program/Project Completion Date 3/31/82			

7. Function/ Activity ID Number	8. Function/Activity Description	9. Cost Category (such personnel or supplies)	10. Planned Prior Budget Periods	11. Actual Prior Budget Periods	12. Planned Current Budget Period — Dollars Expressed in																13. Planned Future Budget Period				14. Total Planned Costs (Columns 10, 12, 13)
					1ST QTR.			2ND QTR.			3RD QTR.			4TH QTR.			Total								
					A	M	J	J	A	S	O	N	D	J	F	M	Total	a	b	c					
1.1	PERFORMANCE ROOMS	PERSONNEL	-0-	-0-	34	17	10											61	0			0	61		
		SUPPLIES			1	1	1											3	0			0	3		
		TRAVEL			0	2	0											2	0			0	2		
		CONTRACTUAL			5	5	2											12	0			0	12		
1.2	AUDIT MATERIALS	PERSONNEL				17	24	13										54	10			10	64		
		SUPPLIES			1	1	1											3	2			2	5		
		CONTRACTUAL			0	6	4	20										30	30			30	60		
1.3	AUDITOR TRAINING	PERSONNEL				10	31	31	21	5								98	21			21	119		
		SUPPLIES				1	1	1	1	1								5	1			1	6		
		TRAVEL			0	0	5	20	6									31	20			20	51		
		CONTRACTUAL			0	14	6	0	0									20	0			0	20		
1.4	AUDITS	PERSONNEL						13	24	39	10	10	10	5	5			116	128			128	244		
		SUPPLIES						3	1	1	1	0	0	1	0			7	8			8	15		
		TRAVEL						0	6	10	2	2	2	1	1			24	36			36	60		
		CONTRACTUAL						2	5	5	5	5	5	5	5			37	42			42	79		
1.5	ANALYSIS & EVALUATION	PERSONNEL									34	34	34	39	39			180	60			60	240		
		SUPPLIES									1	1	1	3	1			7	12			12	19		
		CONTRACTUAL									15	15	15	15	15			75	150			150	225		
1.1-1.5	AUDIT PROGRAM	EQUIPMENT			2	2	2	2	2	2	2	2	2	2	2	2		24	24			24	48		
		TOTAL	-0-	-0-	42	45	57	66	83	80	69	70	69	69	71	68		789	544			544	1333		
		DOE FUNDS	-0-	-0-	30	30	40	45	59	55	43	50	50	50	50	43		545	300			300	845		

15. Remarks EQUIPMENT, TO INCLUDE 2 TYPEWRITERS, 2 TAPE CALCULATORS AND ASSORTED OFFICE FURNITURE, WILL BE USED BY PROGRAM STAFF THROUGHOUT PROGRAM.	
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16. Signature of Recipient and Date <div style="display: flex; justify-content: space-between;"> SUSAN PRINT <i>Susan Print</i> 1/30/80 </div>	17. Signature of DOE Reviewing Representative and Date <div style="display: flex; justify-content: space-between;"> T. J. NOTEWORTHY <i>TJ Noteworthy</i> 2/15/80 </div>
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FIGURE 15

Discussion of the Plan, Figure 16

Item 3 — Reporting Period. This Federal Assistance Management Summary Report form is being used in this example to show planned costs and schedule for a five month effort.

Item 8 — Months or Quarters. The schedule is identified by months, the first month is January, identified by J. Note the actual work does not begin until March but the full calendar quarter is identified.

Item 11 — Milestone Status. Six milestones have been developed for this workshop effort. The last milestone, 1.6 — "Submit final report" is scheduled for completion 30 days after the performance ends, within DOE's final report due date.

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7 BP	8. Months or Quarters							
79	J	F	M	A	M	J	J	A
9 Cost Status a. Dollars Expressed in THOUSANDS								
10. Cost Chart								
Fund Source		Quarter				Cum to Date	Tot. Plan	
		1st	2nd	3rd	4th			
	P							
	A							
	P							
	A							
	P							
	A							
Total P								
Total A								
Variance								
P = Planned A = Actual								
Total Planned Costs for Program/Project 41 THOUSAND								
b. Dollar Scale								
c. Accrued Costs								
Planned			6			25		10
Actual	-							
Variance								

[illegible]

13. Signature of Recipient and Date DR. SIGMUND FRAUD 1/1/79	14. Signature of DOE Reviewing Representative and Date GOODY T. SHOES 1/15/79
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Discussion of the Report, Figure 17

Item 8 — Months or Quarters. The recipient has identified the budget period by quarters.

Item 9 — Cost Status. The planned total costs for this project was \$36 thousand. Actual costs also totaled \$36 thousand as shown on the graph and in 9.C-Accrued Costs.

Item 11 — Milestone Status. Six milestones have been defined for this research effort. As shown on the form, all milestones have been completed.

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13. Signature of Recipient and Date DR. JOY BOYS 11/30/81	14. Signature of DOE Reviewing Representative and Date JOHN DOODA 12/15/81
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FEDERAL ASSISTANCE MANAGEMENT SUMMARY REPORT

PURPOSE

A graphic presentation of costs and milestone status that provides rapid visual analysis and trend forecasting. The funding levels should represent all available resources.

INSTRUCTIONS

- Item 1 — Enter the Federal grant or agreement identification number for the current year as it appears in the official award.
- Item 2 — Enter the program/project official title as it appears in the award and, if applicable, the project identification number.
- Item 3 — Enter the start and completion dates for the current reporting period.
- Item 4 — Enter the name and address of the agency or office responsible for managing the project.
- Item 5 — Enter the official start date of the original agreement.
- Item 6 — Enter the official completion date as of the latest modification.
- Item 7 — Enter the current budget period, such as calendar year (CY 79) or the Federal government fiscal year (FY 79).
- Item 8 — Enter the first letter of each month of the budget period in the 12 blocks. If reporting by quarters, use the three column spaces separated by heavy vertical lines and identify the quarter, such as first quarter and so on.
- Item 9a — Show the unit of dollars used, such as "hundreds" or "thousands."
- b — Enter the appropriate dollar scale for the large grid.
- c — Enter the planned accrued costs for each month or quarter for the current budget period. Then,
- On the grid, use a solid line extending horizontally to show the dollar ceiling. Then,
 - Enter the actual accrued costs for each month or quarter for the current reporting period. Then,
 - Subtract the planned cost from the actual costs for each month or quarter and show the difference (variance). Show the minus amounts in parentheses. Then,
 - On the grid, use a dashed line to plot the planned cumulative costs by the dollar scale and the month or quarter for the current budget period. Then,
 - Use a solid line to plot the actual cumulative costs for each month or quarter up to and including the month or quarter being reported. If any cost projection will vary from the planned cost for the remainder of the budget period, indicate this by a dotted line extending from the solid line.
- Item 10 — Show planned and actual costs by the source of funding, such as DOE, other Federal agencies (HUD, HEW), state, or other sources for each quarter, as well as the cumulative to date and the total for each funding source. Also show the total planned costs for the life of the program or project.
- Item 11 — Enter the current budget period milestone descriptions. Milestones are activities or tasks needed to be completed to accomplish the project's objectives. Milestones are measurable units of work and can be elements from the work breakdown structure. Then,
- In the column labeled Units Planned, Completed, show the appropriate figures for the current reporting period. Enter, when quantification is possible, the number of items to be produced, serviced, or acted upon.
 - Show the milestones graphically, using the charting information below.

- Item 12 — Enter any brief explanatory remarks regarding schedule deviations. (Include detailed explanations in a Project Status Report.)
- Item 13 — Enter the signature and date of the recipient's activity manager for reference.
- Item 14 — Enter the signature of the DCE program manager responsible for monitoring the program/project to verify the plan has been reviewed and appears responsible. The date of review should also be entered.

CERTAIN PROGRAMS MAY REQUIRE ADDITIONAL INSTRUCTIONS WHICH WILL BE ATTACHED TO THIS FORM.

CHARTING INFORMATION

SYMBOLS

△ Major Milestone

▽ Intermediate Event (Deliverable, Supporting Milestone, or Decision Point)

▲ Intermediate Event completed early or late

◇ Proposed Scheduled Deviation (late or early) for a major milestone

□ Activity Bar

— Dollar Ceiling

--- Time Now

⋮ Continues beyond Time frame shown

EXAMPLES

APPENDIX D

FEDERAL DOMESTIC ASSISTANCE CATALOG PROGRAM ASSISTANCE (As of 12/1/78)	OMB CIRCULARS					FEDERAL MGMT. CIRCULAR 74-4	ENVIR. IMPACT STATEMENT	TREASURY CIRCULAR 1082
	A-95		A-102	A-110	A-111			
	PT. I	& III						
81.004 University Laboratory Cooperative Program				X				
81.007 Faculty Training Institutes Short Courses, & Workshops on Energy & Environmental Subjects				X				
81.020 Traineeships for Graduate Students in Energy-Related Fields				X				
81.022 Energy-related Laboratory Equipment Grants				X				
81.035 Research & Development in Energy Conservation			X	X				
81.037 Research & Development- Fission, Fossil, Solar, Geothermal, Electric & Storage Systems, Magnetic Fusion			X	X		X		X
81.040 Grants for Office of Consumer Services*	X	X	X	X		X		X
81.041 State Energy Conservation Programs		X	X			X		X
81.042 Weatherization Assistance Program for Low-Income Persons*	X	X	X			X		X
81.043 Supplemental State Energy Conservation Program		X	X			X	X	X
81.044 Public Education in Energy				X				
81.045 Special Studies & Projects in Energy Education & Training				X				
81.407 Preface (Pre-Freshman & Cooperative Education for Minorities in Engineering)				X				
81.049 Basic Energy Sciences, High Energy & Nuclear Physics, & Advanced Technology & Assessment Projects				X				
81.050 Energy Extension Services	X		X			X		

*Note: Regarding State formula grant programs requiring State plans, Part I requirements apply to applications for subgrants under the State allocation. The State's application for its allocation under the formula grants is reviewable under Part III.