UMTRA—DOE/ALO—10

Uranium
Mill
Tailings
Remedial
Action
Project

United States
Department of Energy

Public Participation Plan

UMTRA-DOE/ALO-10
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URANIUM MILL TAILINGS REMEDIAL ACTION PROJECT (UMTRAP) PUBLIC PARTICIPATION PLAN

Prepared by
The MITRE Corporation
under contract
to
Sandia National Laboratories
for the
UMTRA Project Office
Albuquerque Operations Office
Department of Energy

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The purpose of this Public Participation Plan is to explain the Department of Energy's plan for involving the public in the decision-making process related to the Uranium Mill Tailings Remedial Action (UMTRA) Project. This project was authorized by Congress in the Uranium Mill Tailings Radiation Control Act of 1978. The Act provides for a cooperative effort with affected states and Indian tribes for the eventual cleanup of abandoned or inactive uranium mill tailings sites, which are located in nine western states and in Pennsylvania. Section 111 of the Act states, "In carrying out the provisions of this title, including the designation of processing sites, establishing priorities for such sites, the selection of remedial actions and the execution of cooperative agreements, the Secretary (of Energy), the Administrator (of the Environmental Protection Agency), and the (Nuclear Regulatory) Commission shall encourage public participation and, where appropriate, the Secretary shall hold public hearings relative to such matters in the States where processing sites and disposal sites are located." The objective of this document is to show when, where, and how the public will be involved in this project.

The public has a right to know about proposed government actions and to be heard in the planning of activities that influence their lives. The Department of Energy (DOE) plans not only to comply with the legal requirements for public participation, but also to expand the role of the citizens who live in affected communities. DOE wishes to encourage the states and local governments, as well as individuals, to join actively in the decision-making process to ensure that the resulting decisions reflect the public needs.

1.1 Background of Mill Tailings and the Remedial Action Program

Uranium ore consists largely of rock and sand which contain small amounts of uranium and other minerals. At uranium mills, this ore is processed to extract the uranium in the form of a uranium oxide known as "yellowcake." Over 99 percent of the original processed ore remains as a waste product known as uranium mill tailings, which consists of finely crushed rock and sand, traces of uranium, and most of the radioactive daughter products resulting from the radioactive decay of the uranium. The radioisotopes of principal concern are radium-226, radon-222, and their decay products.

The tailings at inactive processing sites were produced by private industries under contract to the U.S. government, which procured the uranium for national defense programs during the period from 1943 to 1971. During the latter part of this period there was a reduced demand for uranium, and many uranium mills were closed and abandoned. Since the potential health effects of radioactivity from uranium mill tailings were believed to be minimal, few actions were taken to stabilize or protect the tailings piles. In some areas, tailings were spread to adjacent properties by wind and water action or were used for landfill and construction purposes.

Later, when the potential health hazards associated with uranium mill tailings were recognized, the Congress directed DOE to perform remedial actions at properties where such tailings were located. Authorization is contained in PL 92-314 and PL 95-236, which provide for remedial action at certain vicinity properties in Grand Junction, Colorado, and later in PL 95-604, the Uranium Mill Tailings Radiation Control Act of 1978. The latter law directs DOE to enter into cooperative agreements with affected states and Indian tribes, in order to perform remedial actions at designated inactive processing sites and vicinity properties. DOE's authority under the Act to perform these actions ends seven years after the Environmental Protection Agency (EPA) promulgates standards.

Twenty-five inactive processing sites* were designated for remedial action under provisions of the Act. All of these sites are located in the western United States except one, which is in Canonsburg, Pennsylvania (Figure 1-1). The sites, occupying a total area of about 1000 acres, contain approximately 20 million cubic yards of tailings. During the designation of processing sites and the establishment of site priorities, DOE encouraged public participation through the publication of *Federal Register* notices and press releases. DOE is also in the process of identifying and designating vicinity properties which are determined to be contaminated by residual radioactive materials derived from the 25 designated sites. Remedial action at these vicinity properties will be performed as part of the remedial action for the original processing site.

Remedial actions at the processing sites are planned to begin in 1983, contingent on issuance of the final EPA standards, negotiation of cooperative agreements between DOE, affected states or Indian tribes, and compliance with the National Environmental Policy Act (NEPA). Figure 1-2

*See Appendix A—Glossary for definitions.

shows the UMTRAP master schedule for remedial actions. It is anticipated that vicinity property cleanup will begin in 1981 and that all vicinity properties and processing sites will be cleaned up or stabilized by the end of 1988.

The Uranium Mill Tailings Radiation Control Act provides for public involvement in remedial action planning, with special consideration given to landowners, Indian tribes, and the states. According to the Act the Secretary of Energy shall hold public hearings in the states where processing sites, vicinity properties, and disposal sites are located. Public hearings and/or acceptance of formal comments as appropriate may take

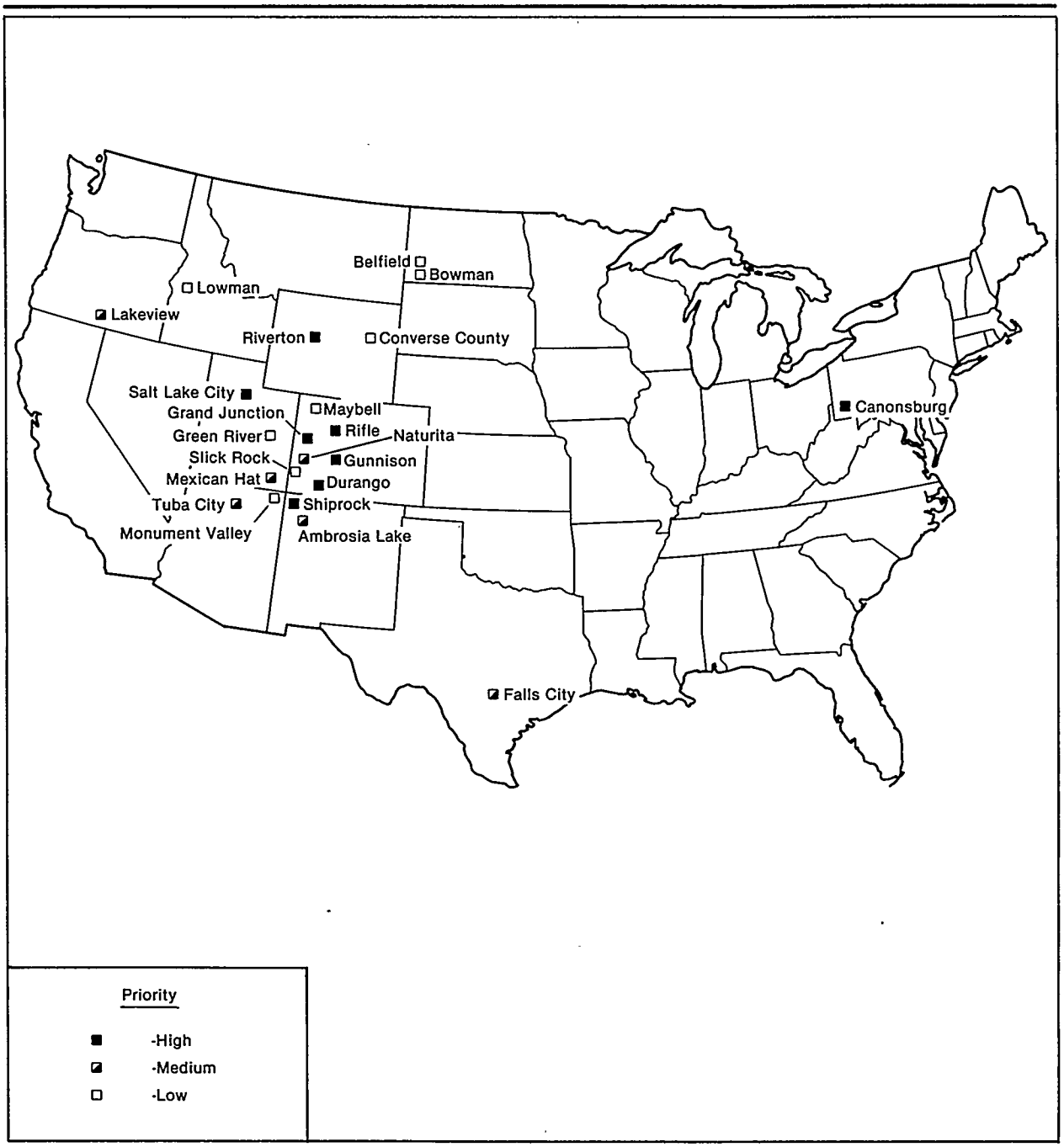

FIGURE 1-1
INACTIVE URANIUM MILL TAILINGS SITES

place in connection with the following actions:

- selection of remedial actions
- selection of disposal sites
- promulgation of EPA standards

Public participation in the UMTRA Project will not, however, be limited to those mechanisms formally required by law. The public may also be involved informally through informational meetings, workshops, and state task forces. The remainder of this report summarizes future DOE plans for involving the public formally and informally in the remedial action program.

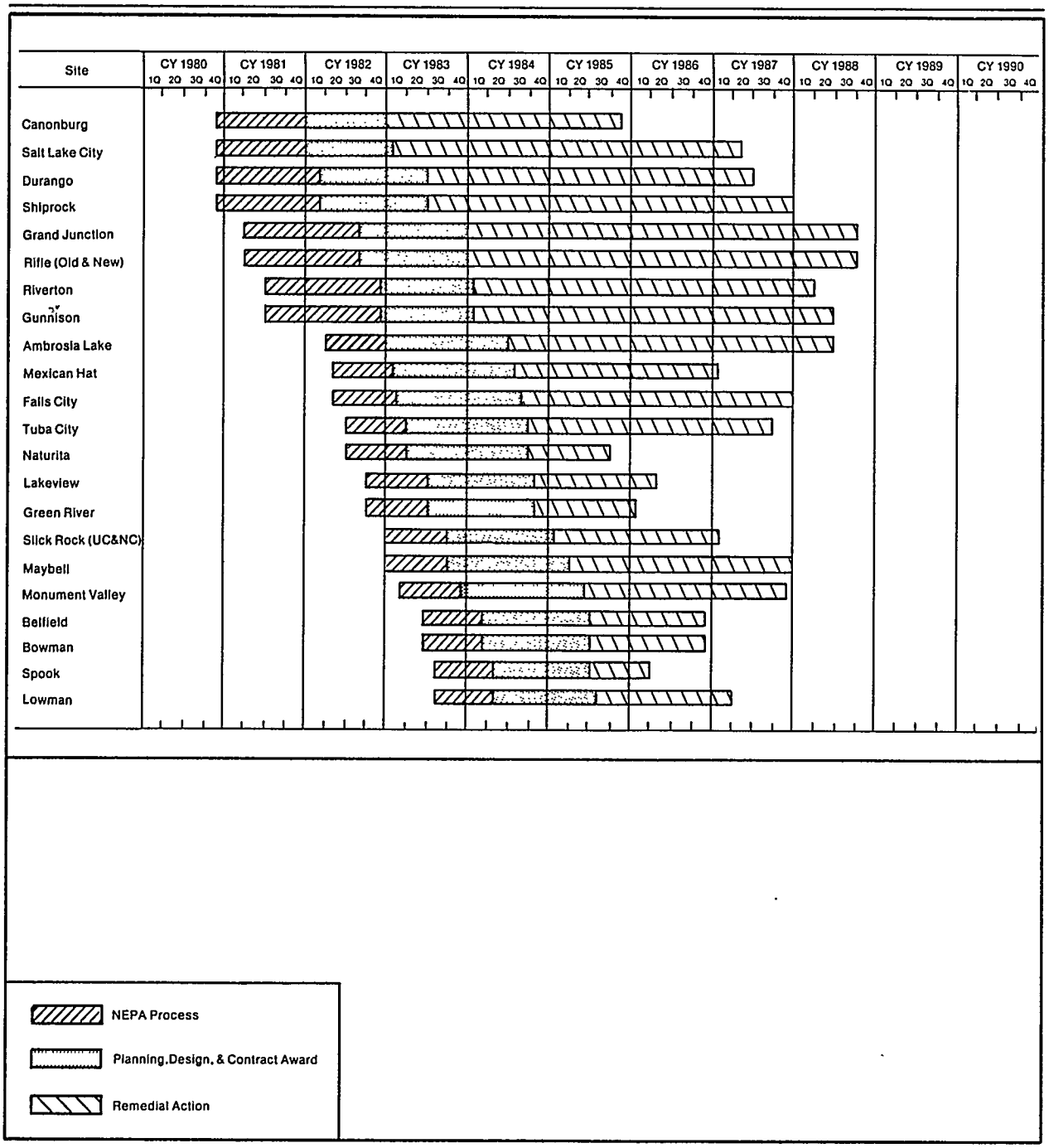

FIGURE 1-2
PRELIMINARY URANIUM MILL TAILINGS PROGRAM SCHEDULE

The Public Participation Plan allows many opportunities for citizens to ask questions about uranium mill tailings and about remedial action plans for their community. While DOE officials will be available at public meetings to answer specific questions about particular sites and actual problems, the following questions apply generally to uranium mill tailings and their potential effects on people and the environment.

How does one get exposed to radiation from the tailings?

Figure 2-1 illustrates a simplified version of the radioactive decay chain, whereby the original uranium breaks down into various decay products such as radium in the soil and water, and radon gas, which may be present in air or concentrated in buildings. People may be exposed to windblown dust or radon daughters; the principal exposure hazard is from the decay of radon daughters in the lung. The windblown tailings also emit alpha radiation, causing exposure to bone or lung. Near the tailings, people may also be exposed to gamma radiation. Gamma-rays are a penetrating radiation like x-rays. If radium were to migrate into the soil or water, another pathway to people could occur via ingestion of contaminated drinking water or vegetation. Radium may be present in soil for thousands of years and is a radiotoxic bone-seeking element.

How dangerous are these exposures to one's health?

Statistical predictions of direct effects contain a large amount of uncertainty. The greatest risks come from inhalation of radon daughters in closed buildings. A less significant risk is from the external gamma radiation, usually limited to about half a mile from the tailings source. Health effects from these exposures are small. The National Academy of Sciences BEIR III Report, 1980 found that while there is an increased rate of cancer with increased radiation doses, the degree of risk is so low that it cannot be observed directly.

What radiation levels are involved?

On the tailings, gamma radiation levels might be as high as 1.6 milliroentgens per hour, but average only 0.1 to 0.19 milliroentgens per hour. Natural background radiation in the western United States averages 0.015 milliroentgens per hour. This can be compared to a chest x-ray, which exposes a person to about 27 milliroentgens. The National Council on Radiation Protection recommends that whole-body exposure for the general population not exceed 500 milliroentgens per year.

Radon levels vary from site to site and can change by a factor of ten over one day because of natural influences of wind, moisture, or time of day. For example, at one processing site, average daytime levels of radon in air ranged from 2.6 to 106.5 picocuries per liter of air. The general public guideline value for continuous exposure is 3 picocuries per liter of air.

What are some of the problems of removing the tailings?

There is some possibility of temporarily increased levels of radioactivity resulting from excavating and moving the tailings. There are also some non-radiological safety problems and a potential accident risk involved with the following actions:

- demolition and removal of structures
- excavation of tailings
- loading of waste and rubble
- transportation of tailings

What is being done to ensure that the new disposal methods will prevent leaching and erosion?

The UMTRA Technology Development Program is investigating methods to permanently isolate the tailings from the environment. Methods under investigation include the following technologies:

- asphalt emulsion seals
- multilayer covers
- biobarriers
- liners composed of clay, asphalt, or other materials
- revegetation and rip-rap
- tailings conditioning
  - —physical
  - —chemical
  - —leaching

Who will be watching out for the public health and welfare?

The DOE Office of Nuclear Waste Management will have program responsibilities and the UMTRA Project Office at the DOE Albuquerque Operations Office will have project responsibility for the remedial actions. The DOE Office of Environment will play an overview role, monitor the

cleanup process, and certify that the residual radioactivity levels of open land and buildings comply with health and environmental standards. EPA will set and enforce environmental and radiation standards to protect the public. Maintenance and monitoring of the final disposal sites for uranium mill tailings must be licensed by the Nuclear Regulatory Commission (NRC).

Not only the Federal agencies, but also state health and radiological agencies are responsible for public welfare. During construction phases of the remedial action, all activities are subject to applicable local, state, and federal regulations and laws.

Whom can I contact for more information?

For information on any of the sites, schedules, or plans contact the Uranium Mill Tailings Remedial Action Project (UMTRAP) office:

Uranium Mill Tailings Remedial Action Project
U.S. Department of Energy
P.O. Box 5400
Albuquerque, New Mexico 87185
(505) 844-2185

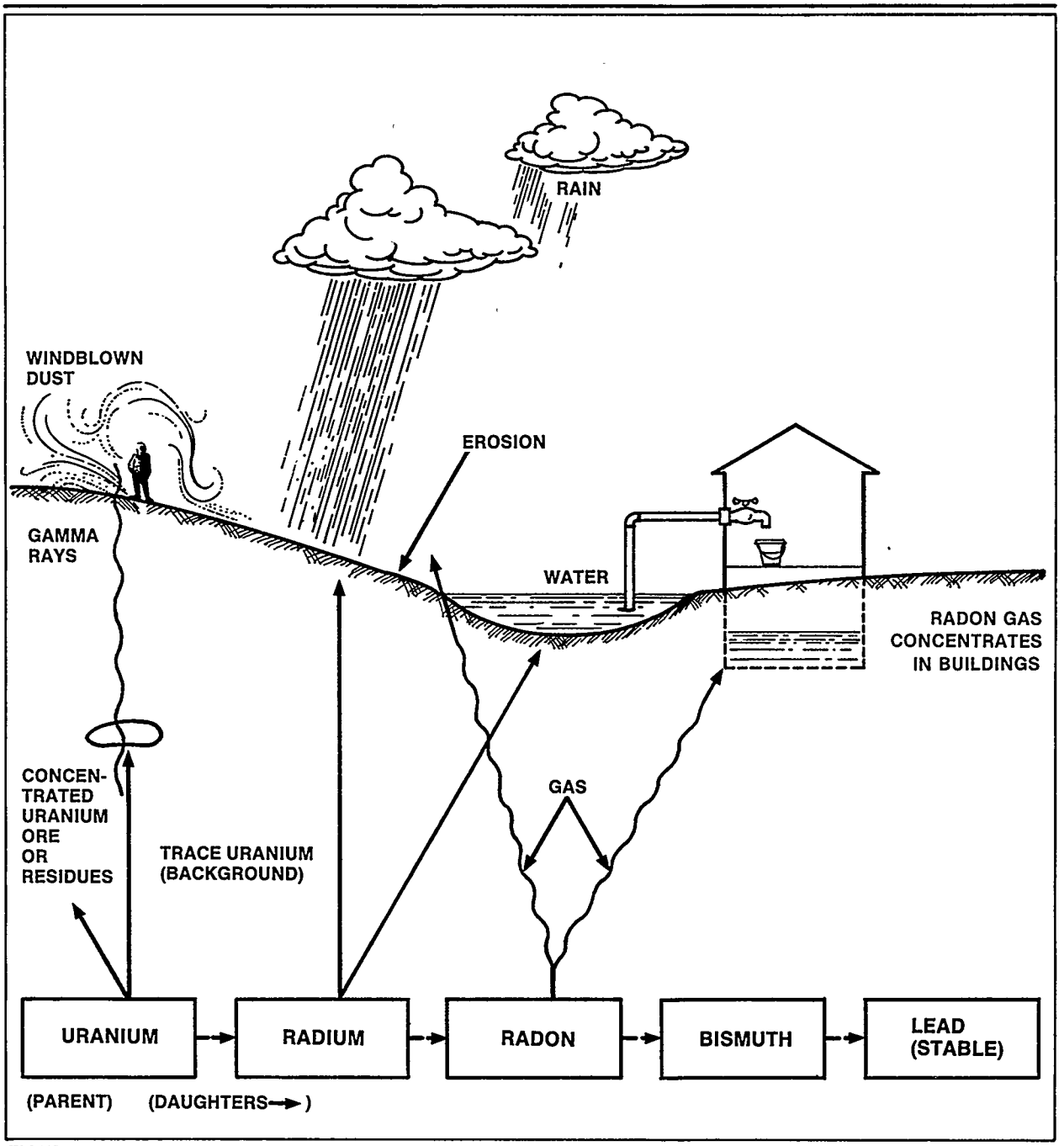

FIGURE 2-1
URANIUM - 238 RADIOACTIVE DECAY CHAIN (ABBREVIATED)
AND MECHANISMS OF TRANSPORTING RADIOACTIVITY FROM URANIUM TO MAN

The National Environmental Policy Act (NEPA) of 1969 requires an evaluation of the environmental impacts of major Federal actions significantly affecting the environment. Public participation has become an increasingly important part of this process. Throughout the series of measures necessary for compliance with the requirements of NEPA, there are a number of formal provisions for participation by all interested parties, including other Federal agencies, state and local agencies, Indian tribes, and the general public (including proponents and opponents of an action). These public participation requirements are detailed in the Council on Environmental Quality (CEQ) Regulations (effective July 1979) for implementing the provisions of NEPA, and in Department of Energy (DOE) guidelines of 1980 for NEPA compliance.

The degree of public participation in the NEPA process varies greatly depending on the type of environmental document required for a particular action. In the EIS process, there are five major areas in which public participation is required and solicited: the notice of intent, the scoping process, the draft EIS, the public hearing on the draft EIS, and the final EIS. In the environmental assessment (EA) process, public participation in the form of comments is requested when the public notice is published and distributed.

3.1 Public Involvement in the Environmental Assessment Process

The environmental assessment process, and the degree of public involvement in it, is much simpler than the environmental impact statement process. The environmental assessment assists DOE to determine whether or not to prepare an EIS. If the decision is made to prepare an EIS, then the activities and public participation described below, from notice of intent to final EIS, are set in motion. A "Finding of No Significant Impact" is prepared if DOE determines that an EIS is not needed. This finding is a brief presentation of the reasons why a project will not have a significant effect on the environment and includes the environmental assessment or a summary of it.

After a Finding of No Significant Impact has been prepared, a public notice may be published in the *Federal Register;* additional comments may be requested by mailing the public notice to interested parties. For programs of national interest, DOE would also make the Finding of No Significant Impact available for public review for a 30-day period.

If after this review period no substantive objections have been raised concerning the finding, the action may proceed, and no further public involvement is required. If information presented during the review indicates that the environmental impacts would be significant, then the EIS process with full public involvement begins.

3.2 Public Participation in the Environmental Impact Statement Process

By its decision to prepare an EIS, an agency sets in motion a series of actions that provide for public participation at several points throughout the course of these actions. These points of public participation are described below. A preliminary schedule of EIS-related activities (Figure 3-1) is presented for the processing sites for which EISs will be prepared. It should be noted that this is a preliminary schedule to illustrate the approximate time frames for these EISs. The first step, the publication and distribution of the notice of intent, depends on a variety of previous activities, including the execution of state or Indian tribe cooperative agreements, the promulgation of proposed EPA standards and the identification of alternative final disposal sites if tailings may be relocated. For the Uranium Mill Tailings Remedial Action Project, Figure 3-1 depicts an EIS schedule proposed by DOE for site-specific EISs in connection with high-priority sites. The NRC will be a cooperating agency in the preparation of EISs, and the public will be fully involved in any EIS decisions. For the medium- and low-priority sites, environmental assessments will be prepared initially. Should these environmental assessments indicate a potential for significant impacts, DOE will proceed with the full EIS procedure discussed below.

3.2.1 Notice of Intent

Following the decision to prepare an EIS, the first step involving public participation is the publication of a notice of intent in the *Federal Register.* The notice of intent indicates DOE's decision to prepare an EIS and contains a brief description of the proposed action and possible alternatives, a description of the proposed scoping process, and finally, the name and address of a specific person within DOE who is a contact for any information about the proposed action. This notice

of intent also invites comment from the public and announces the time and location of any scoping meeting to be held. (The scoping process is described in the following section.)

In order to achieve adequate notification of its intention to prepare an EIS and hold a scoping meeting, DOE will use a variety of means to provide additional dissemination of this information. Such distribution can include some or all of the following:

- Direct mail to those specifically requesting project information
- Direct mail to national organizations expected to be interested in the project
- Notice to state and area clearinghouses

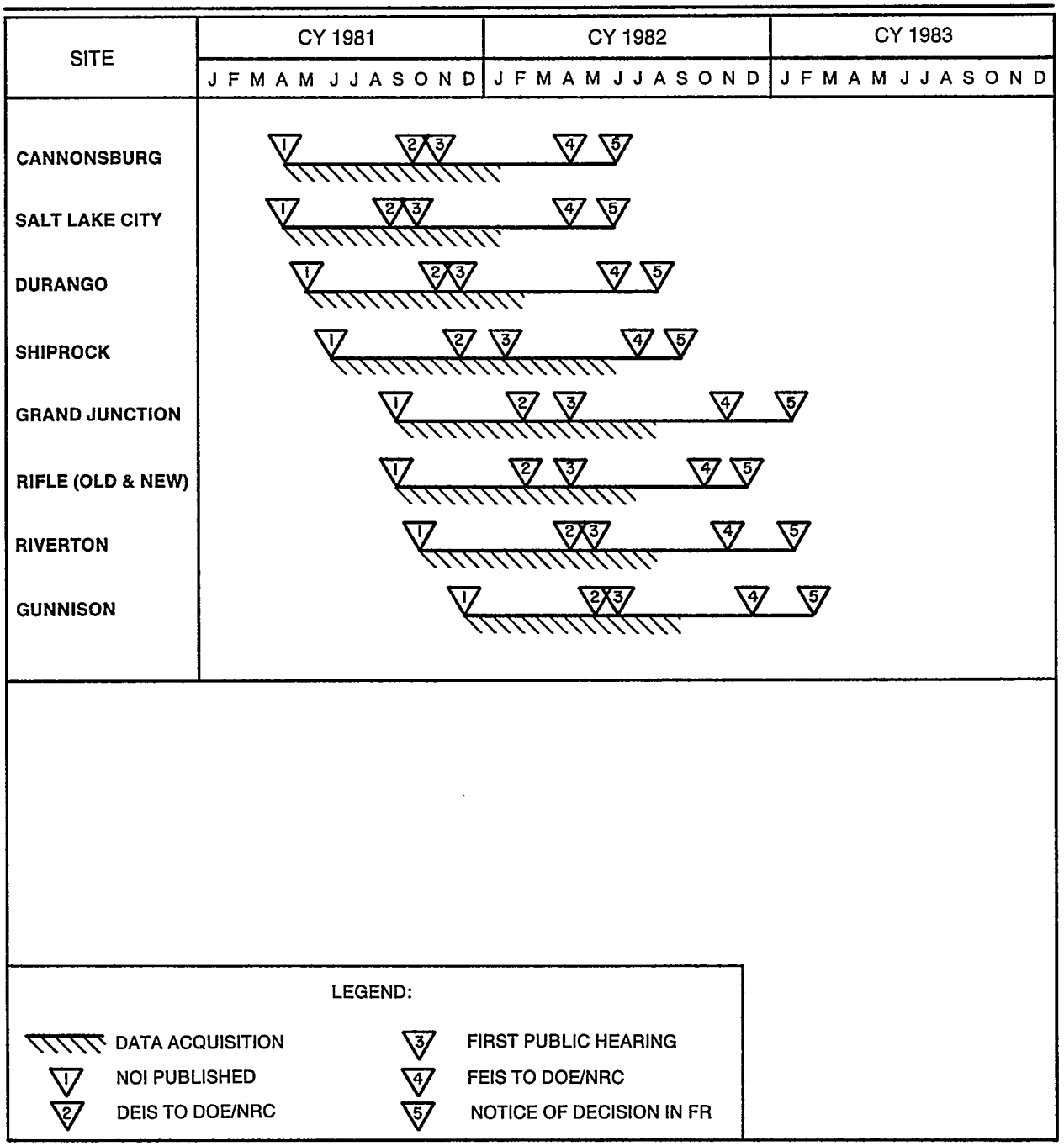

FIGURE 3-1
NEPA-EIS SCHEDULE

- Notice to Indian tribes
- Publication in local newspapers
- Notice through local radio and television stations
- Notice to community organizations
- Publication in newsletters
- Direct mail to owners and occupants of nearby properties
- Posting of notices in the vicinity of the processing sites

Such widespread notification will ensure a maximum opportunity for public participation in this part of the remedial action program.

3.2.2 Scoping Process

The CEQ Regulations state that there shall be an early and open process for determining the scope of issues to be addressed in the EIS and for identifying the significant issues related to a proposed action. Under these CEQ Regulations, DOE will invite the participation of affected Federal, state, and local agencies; any affected Indian tribe; the proponents of the action; and other interested persons (including those who might disapprove of the action on environmental grounds). As described in Section 3.2.1, the notice of intent is to invite comment and is used for public notification of any planned scoping meeting. With the widespread distribution of this notice, the public is given ample chance for early input to the EIS process. Afterwards a DOE implementation plan is prepared to record the results of the scoping process.

3.2.3 Draft EIS

When the draft EIS is complete, it is sent to commenting agencies and is also made available to the public. A public notice on the availability of the draft EIS is published in the *Federal Register.* This notice also includes a request for comments, a cutoff date for comments, and the name, address, and telephone number of the person to whom the comments should be directed. The public notice itself or a letter containing information regarding the availability of the draft EIS is then sent to all individuals or groups identified as having an interest in the project; this also includes a request for written comments, as well as information on the date, time, and location of any public hearings to be held.

The draft EIS, together with a letter requesting comments, is distributed to Federal, state, and local agencies. To the extent practicable, the draft EIS is to be provided to the public without charge. At a minimum, copies of the draft EIS are made accessible by providing copies to local libraries, local government offices, and other locations that would help the public gain access to the document.

3.2.4 Public Hearings

Although an agency is not required to hold public hearings on all EISs, the current level of interest in the uranium mill tailings cleanup indicates a need to hold public hearings for most, if not all, of the processing sites for which EISs will be prepared. Information on the holding of a public hearing is included in the public notice and in the letter that announces the availability of the draft EIS and requests comments on it. The public hearing is an important part of the EIS process, and DOE will assess and consider all written and oral comments received on the draft EIS. This ensures that such public participation is really participation in the decision-making process.

3.2.5 Final EIS

The final EIS is also the final point in the NEPA process in which the public has an opportunity for participation. When the final EIS is published, a notice of availability is published in the *Federal Register* and distributed in the same fashion as the notice of intent and the draft EIS public notice. The basic requirement for circulation of the final EIS states that it shall be furnished to any person, organization, or agency which submitted substantive comments on the draft. This ensures that any commentor has an opportunity to check the final EIS to see how comments were handled. DOE may request comments on the final EIS, but is not required to do so. Other agencies or the public may, however, make comments on the final EIS since no decision on a proposed action can be made until at least 30 days after the final EIS is published.

3.2.6 Record of Decision

At the time of its decision, DOE will produce a concise public record of that decision, stating how the environmental impact statement was considered and used by DOE decision-makers. This record may be integrated into other reports prepared by DOE and shall include:

- what the decision was
- if the environmentally preferable alternative was rejected, what other considerations were involved
- whether all practicable means to minimize environmental harm have been adopted, with an explanation of any mitigation, monitoring, and enforcement programs


CAUTION
RADIOACTIVE
MATERIAL

While Section 111 of the remedial action portion of the Uranium Mill Tailings Radiation Control Act of 1978 specifically mentions the general public, a number of other sections mention participation by Federal agencies, states, Indian tribes, and the Congress. Throughout the various activities authorized by the Act, provisions are made for involving the general public and other groups in the decision-making process of this program.

4.1 Public Participation

The Department of Energy (DOE), the Environmental Protection Agency (EPA), and the Nuclear Regulatory Commission (NRC) are required to encourage public participation in carrying out the provisions of the Act. Where appropriate, DOE is directed to hold public hearings in the states where processing sites and final disposal sites are located; these public hearings may cover selection of appropriate remedial action and execution of cooperative agreements. The cooperative agreements with the Commonwealth of Pennsylvania and the State of Utah have been executed; other cooperative agreements are either in process or are yet to be started.

The Uranium Mill Tailings Remedial Action Project Office (in Albuquerque, New Mexico) has already begun a program of encouraging public participation. Citizen task forces have been organized by the affected states and Indian tribes in some of the communities concerned with uranium mill tailings, and informal meetings have been held between DOE and these groups. Such meetings will continue to be a part of the remedial action program. Public information meetings have also been held in several of these communities and with affected Indian tribes, and such meetings will continue to the extent possible within the Project Office's time schedule.

4.2 Cooperative Agreements

The Act provides for full participation in the remedial action program by the affected states or Indian tribes under whose jurisdiction a designated site is located. These states and tribes will enter into cooperative agreements with DOE, and NRC will concur on the terms before these can take effect.

The affected states and Indian tribes will participate in the following activities: consultation with DOE on designation of processing sites; selection of remedial action options; public hearings in their jurisdictions; and approval of remedial action plans. In addition, the states will be actively involved in the acquisition and disposition of lands and materials. States will acquire designated processing sites if directed by DOE, will identify potential disposal sites, and will acquire the disposal site.

The Act requires the affected states to provide at least 10 percent of the necessary funding, with DOE providing the other 90 percent. For Indian lands, the Federal government will provide 100 percent funding.

4.3 Report to Congress

The Act requires DOE to submit an Annual Report to the Congress each January 1 on the status of the remedial action project. This report is to include the status of the various actions required to be performed under the Act by DOE, NRC, EPA, the Department of the Interior (DOI), the states, and the Indian tribes. Although primarily the responsibility of DOE, this report is to be prepared in consultation with the other Federal agencies and is to contain any separate views, comments, or recommendations of these agencies, states, or tribes.

5.1 Media Releases

The DOE Office of Public Affairs (Albuquerque Operations Office) will be the central source of information for press releases, brochures, and radio spots, and for the production and distribution of a movie on mill tailings.

Press releases will be provided to local and state newspapers in a timely fashion at least two weeks before any public hearing or public information meeting. Any major decision made—on the proposed course of remedial action, on the release of a draft environmental impact statement, or on a choice of a final disposal site—will also be announced via a press release. The DOE Albuquerque Public Affairs Office will also be available to set up press tours, give interviews, or answer questions from the press. Contact the following for more information:

Office of Public Affairs
U.S. Department of Energy
P.O. Box 5400
Albuquerque, New Mexico 87185
505-844-6938

The Office of Public Affairs has prepared a fact sheet on the Uranium Mill Tailings Remedial Action Project (UMTRAP). This fact sheet is available for bulk distribution and for general readership. It gives the history of mill tailings and of the program to clean up the processing sites. To supplement the fact sheet and to provide more detailed site-specific information, an information notebook has been prepared for each site. This information is available to landowners, local and state officials, and those who need more information on a particular site.

The Albuquerque Public Affairs Office can also provide speakers for local citizens' groups and public interest groups. Requests for speakers should specify the time and location of the meeting and the expected size of the audience. The DOE speaker can provide a briefing with site-specific information or a general UMTRAP movie. The 16mm color movie is about 15 minutes long. Those wishing to use it should either provide projection equipment or request in advance that the speaker provide such equipment.

5.2 Information Requests

Requests for information will be handled promptly by the Albuquerque Office of Public Affairs, the UMTRA Project Office, or DOE Headquarters. Routine general information requests and media inquiries will be answered by Public Affairs; the UMTRAP Office will answer site-specific and project-related inquiries; questions of policy and budget requests may be directed to:

Remedial Action Program
NE301, GTN, Department of Energy
Washington, D.C. 20545
301-353-5221

The information generally available from the Albuquerque UMTRAP Office and the Public Affairs Office includes the following:

- Photographs of sites*
- Engineering reports (Title I) for the public
- Engineering reports (Title II) for landowners*
- Environmental assessments or environmental impact statements*
- Radiological surveys (aerial or ground)*
- Fact sheets
- Annual Reports to Congress
- Press releases
- Public information packets
- Brochures
- Transcripts from public hearings*

Tables 5-1 and 5-2 provide examples of site-specific information that will be available in writing over the next several years. Any information produced by DOE will be available upon request, except for reports that apply to private-property plans.

*Available by special request.

DOCUMENT	PLANNED DATE
Press Release	mid 1981
	mid 1983
Public Information Packet	mid 1981
Environmental Impact Statement	
Draft	late 1981
Final	mid 1982
Site Notebook	early 1981
Engineering Assessment	1976, 1981
Engineering Design	mid 1983
Remedial Action Plan	mid 1983
Certification Report	mid 1988
Progress Report	mid 1983
	mid 1984
	mid 1985
	mid 1986
	mid 1987
	mid 1988

TABLE 5-1
MILESTONES FOR WRITTEN MATERIAL FOR SALT LAKE CITY

DOCUMENT	PLANNED DATE
Press Releases	late 1981
	early 1983
Public Information Packet	mid 1981
Environmental Impact Statement	
Draft	late 1981
Final	late 1982
Site Notebook	early 1981
Engineering Assessment	1977, 1981
Engineering Design	mid 1983
Remedial Action Plan	mid 1983
Certification Report	mid 1988
Progress Reports	mid 1983
	mid 1984
	mid 1985
	mid 1986
	mid 1987
	mid 1988

TABLE 5-2
MILESTONES FOR WRITTEN MATERIAL FOR DURANGO SITE

The major emphasis of the Public Participation Plan is to encourage a two-way communication between the public and DOE officials responsible for implementing the program. The major means of encouraging public participation are informal meetings with the local community and the formal public hearings required by law.

Informal meetings have already taken place with citizens' and Indian groups at many of the sites. Citizens' groups, or task forces, are being established by each affected state for each site, and have been formed in Canonsburg, Salt Lake City, Grand Junction, and Durango. These groups are a mechanism by which project plans and status will be transmitted to the general public and allow the local citizenry to provide input into the remedial action planning process. DOE maintains coordination with the various groups relative to scheduled meetings and proposed activities.

For a typical site, the following meetings with the public are expected:

1. Early in the project, meetings are to be held in a town near a processing site; these will be public information meetings to educate the local community and to generally describe the project.
2. Later meetings will present the remedial action concept, which proposes what DOE and the state or Indian tribe plan to do on the site. For some sites, the "scoping" meeting for the preparation of an environmental impact statement might be combined with this meeting.
3. Other meetings may be formal public hearings to solicit comments on the draft EIS and on the proposed action.
4. After the NEPA process, the selected remedial action plan, with costs, will be explained in detail to the public at another information meeting.
5. Approximately one to two weeks before the actual construction at either a processing or a final disposal site, DOE will return to the local community to explain the construction plans for the local area.
6. Periodically throughout the remedial action program, which may take several years to complete, DOE will hold informal meetings in the community to explain progress and to answer questions. The timing of these meetings will depend upon the need and local demand.

The schedule for these planned meetings depends upon key decision elements, such as the signing of a cooperative agreement. The NRC must also concur on these agreements and plans. Budget requests and authorizations, promulgation of EPA final standards, and land acquisition problems may cause delay in the schedule. Although the schedules must remain flexible, Figure 1-2 shows the master plan for the UMTRA Project. Figures 6-1 through 6-8 show schedules for public meetings for specific sites. The milestones show approximately where in the remedial action plan the public will have input.

The figures show that during 1981, meetings to negotiate cooperative agreements will be occurring for some of the processing sites. Task forces will be organized by the states for most sites; meetings will occur regularly throughout the life of the project. The full NEPA process for EISs—from scoping through public hearings and comments—is shown only for those sites where EISs are planned.

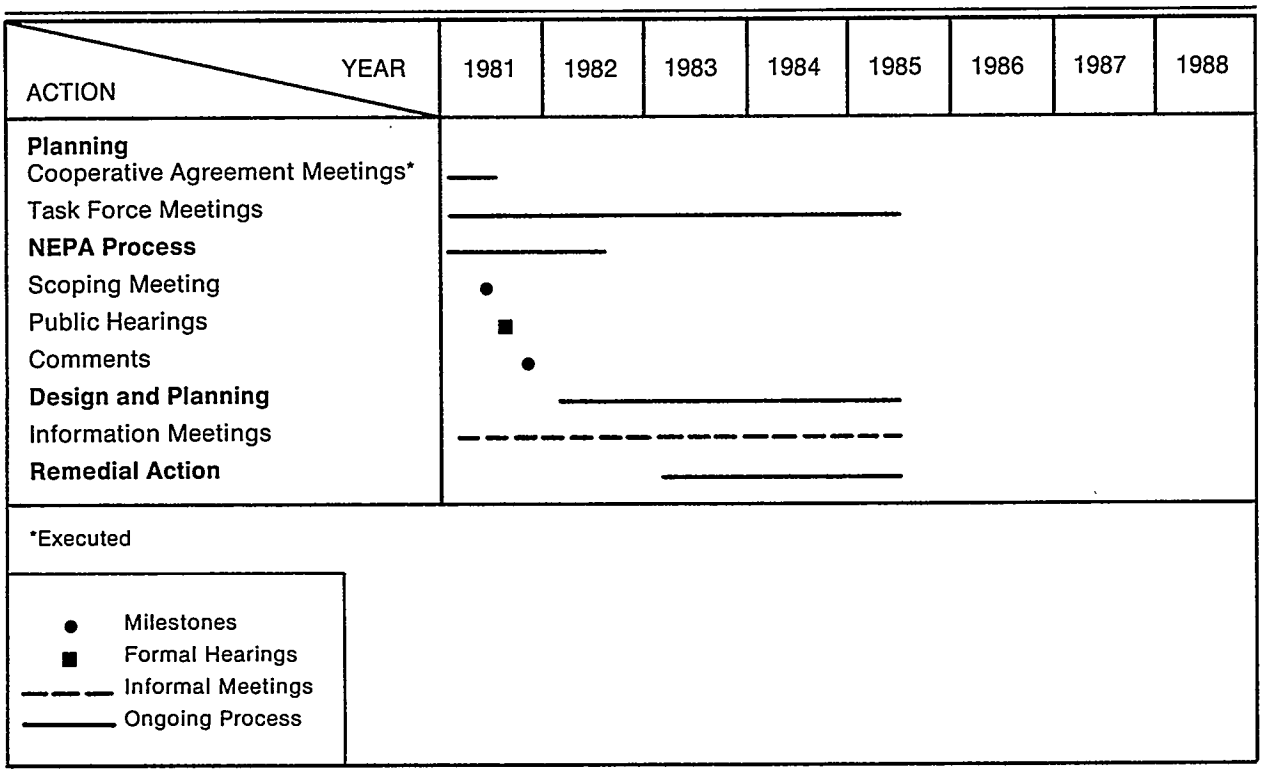

FIGURE 6-1
MEETINGS FOR CANONSBURG PUBLIC PARTICIPATION PLAN

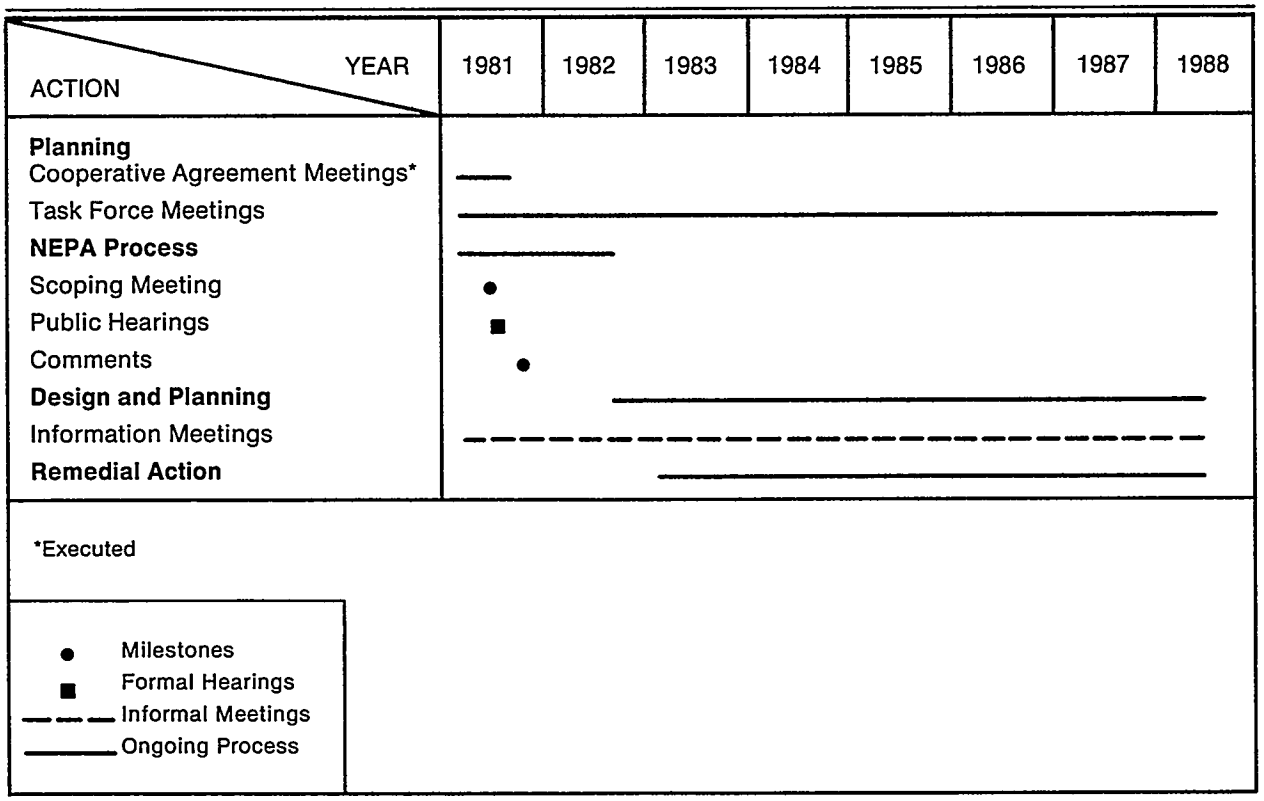

FIGURE 6-2
MEETINGS FOR SALT LAKE CITY PUBLIC PARTICIPATION PLAN

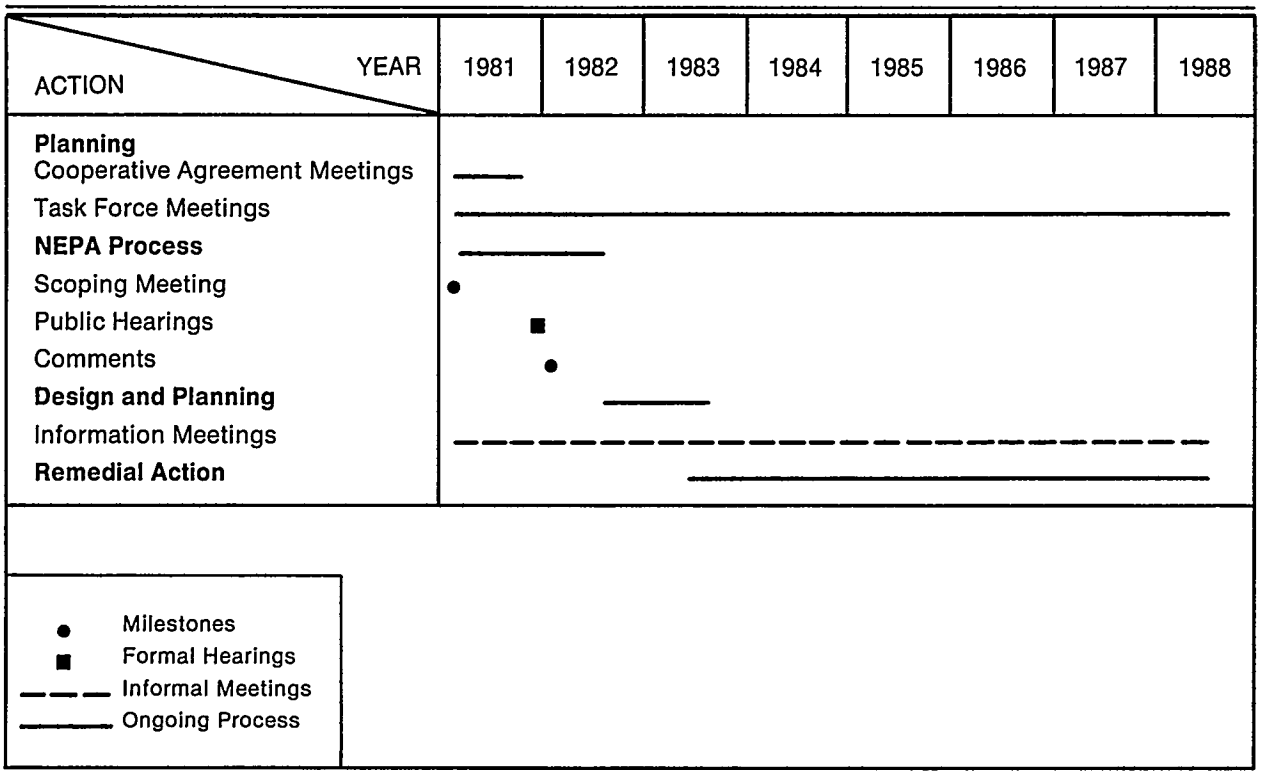

FIGURE 6-3
MEETINGS FOR DURANGO PUBLIC PARTICIPATION PLAN

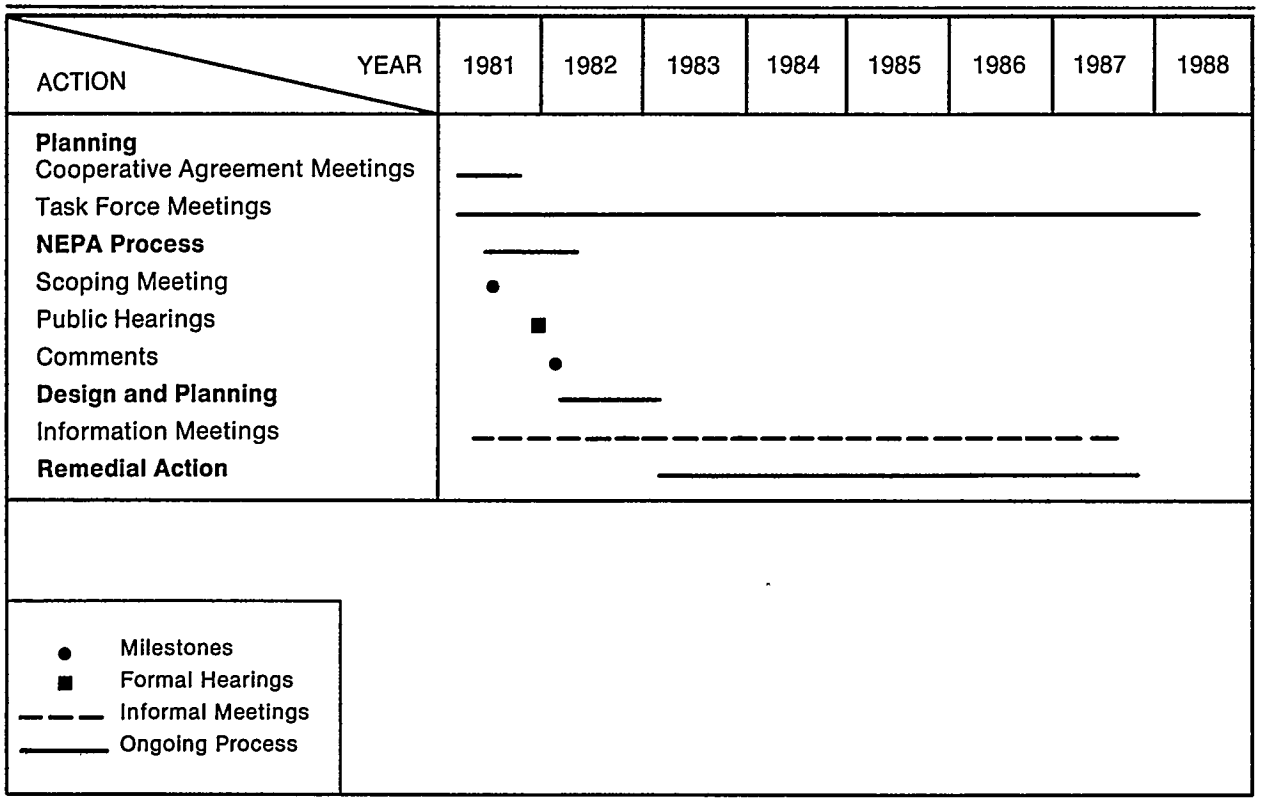

FIGURE 6-4
MEETINGS FOR SHIPROCK PUBLIC PARTICIPATION PLAN

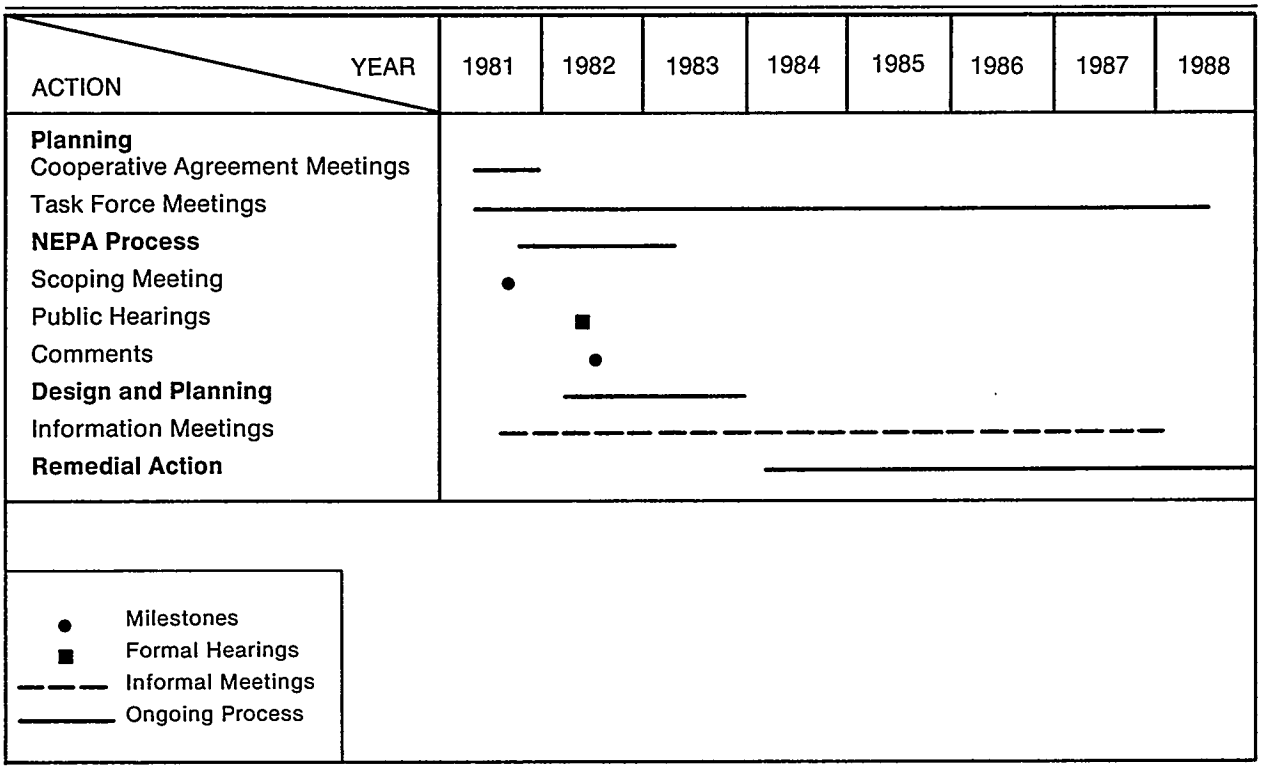

FIGURE 6-5
MEETINGS FOR GRAND JUNCTION PUBLIC PARTICIPATION PLAN

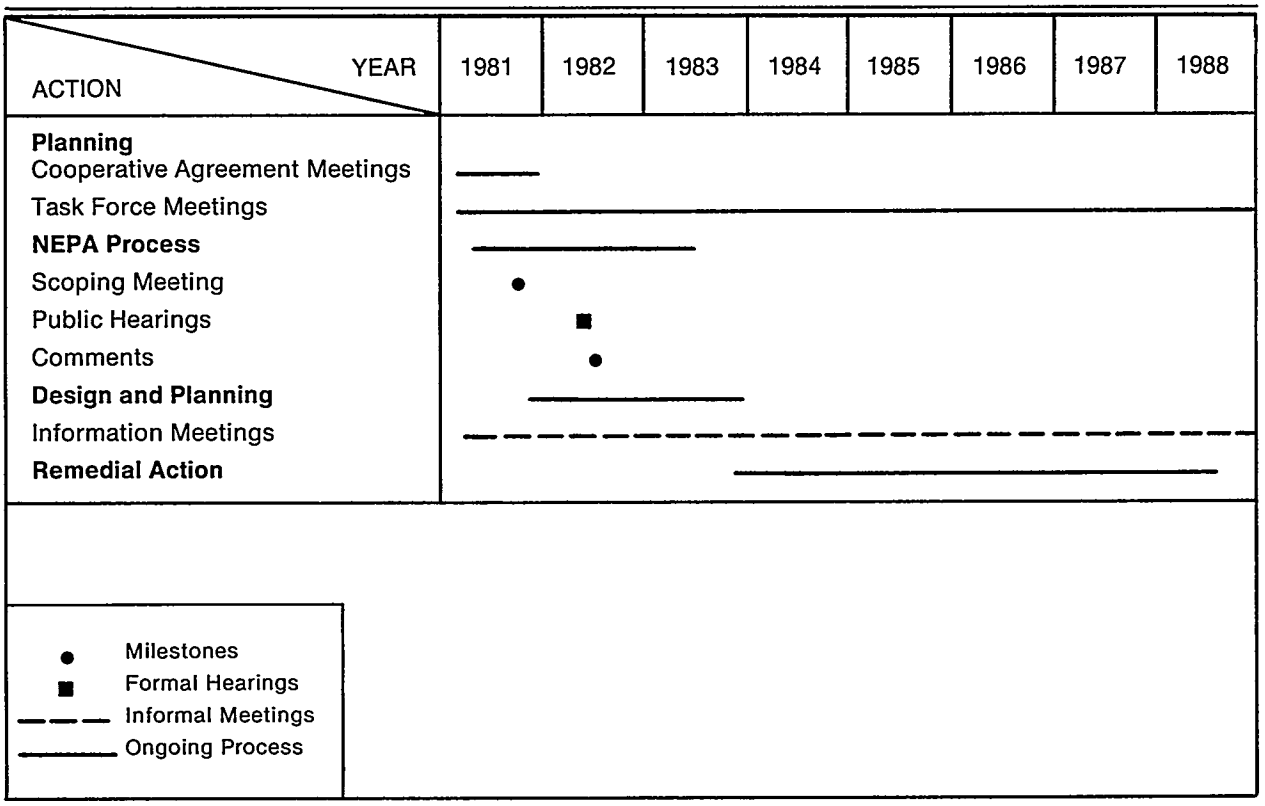

FIGURE 6-6
MEETINGS FOR OLD AND NEW RIFLE PUBLIC PARTICIPATION PLAN

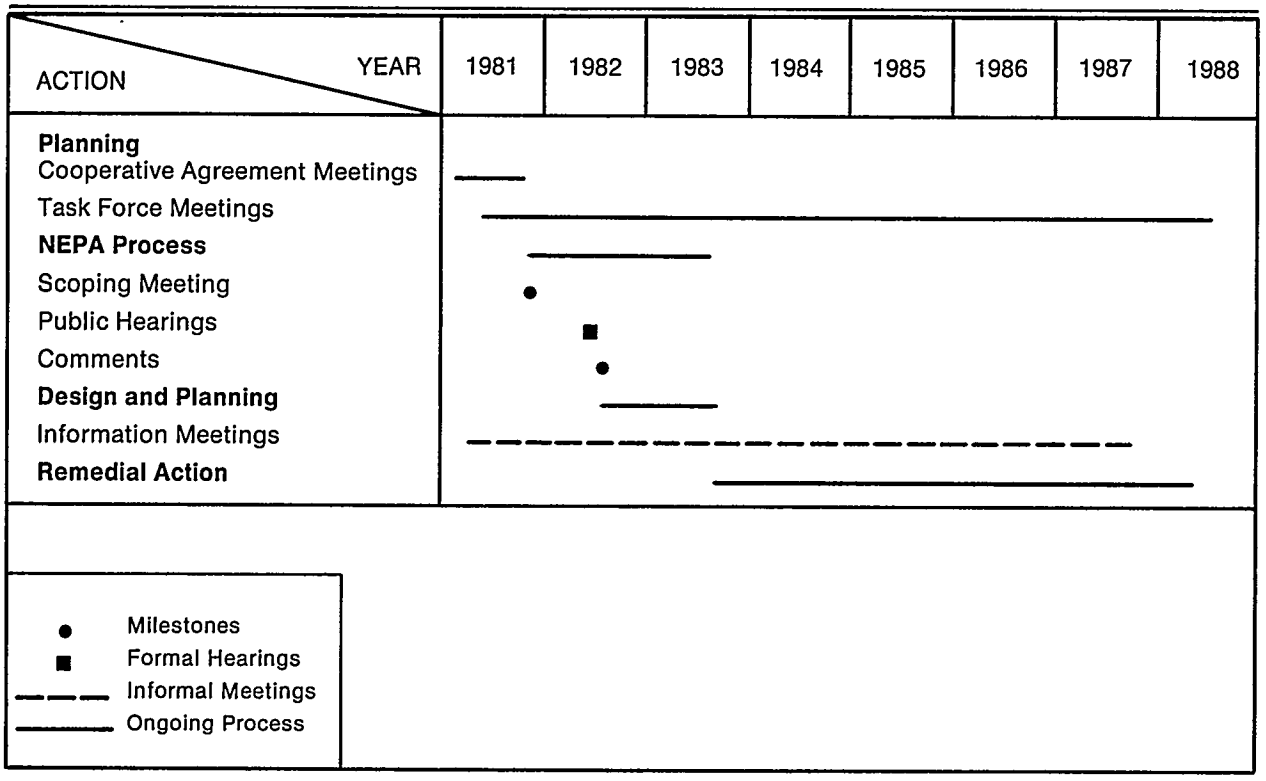

FIGURE 6-7
MEETINGS FOR RIVERTON PUBLIC PARTICIPATION PLAN

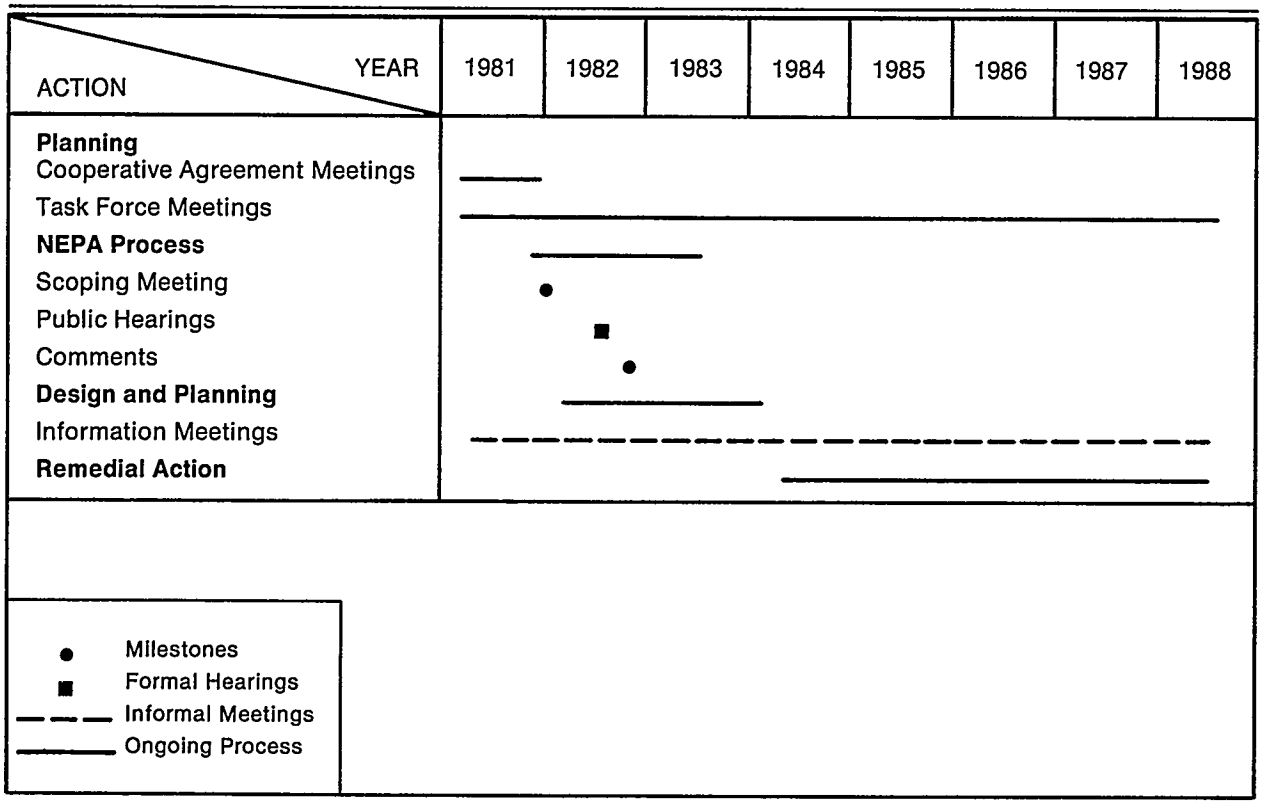

FIGURE 6-8
MEETINGS FOR GUNNISON PUBLIC PARTICIPATION PLAN

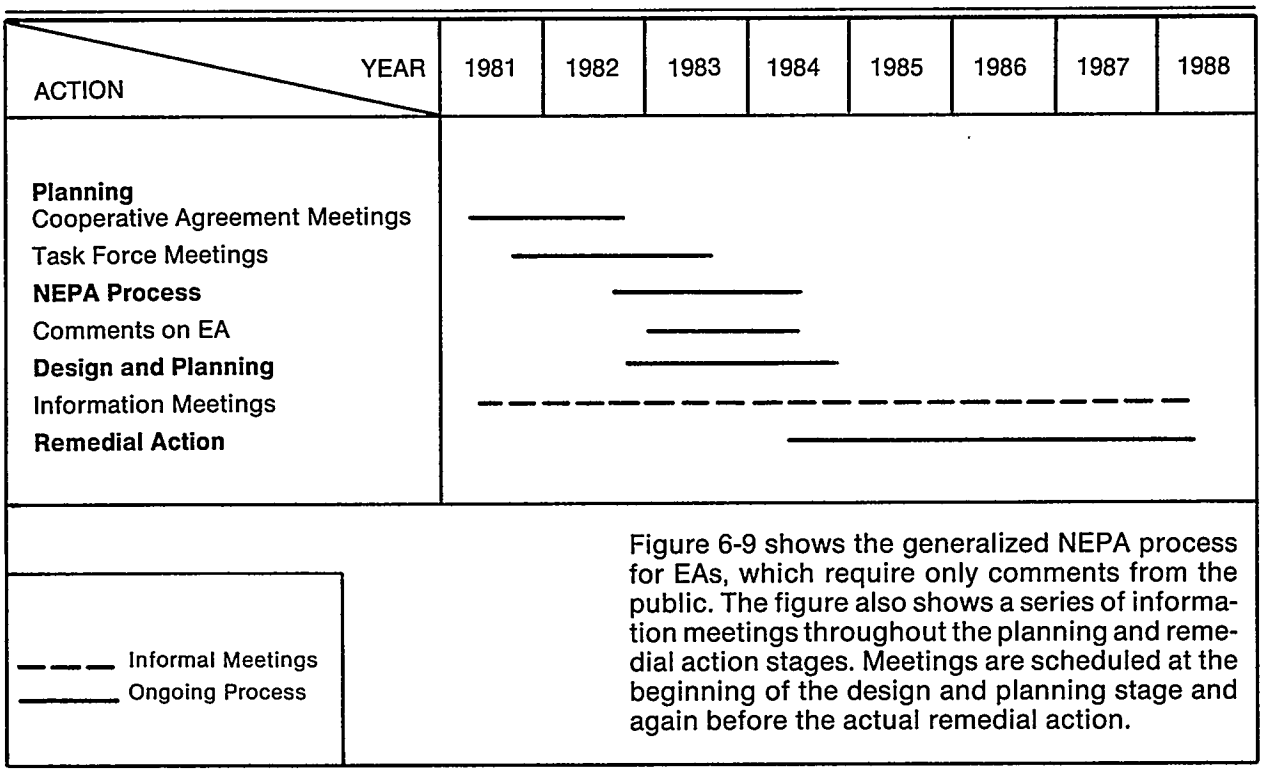

FIGURE 6-9
PUBLIC PARTICIPATION FOR ENVIRONMENTAL ASSESSMENTS

7.0 ORGANIZING THE COMMUNITY TO PARTICIPATE EFFECTIVELY IN PLANNING

As previous sections have shown, there will be many opportunities for the public to participate over the next eight years. The problem then becomes local: how to organize and inform groups of citizens with a variety of educational and interest backgrounds. How can citizens become informed about technical questions? How can citizens provide input to the program and be effective in their overall participation?

Citizens may attend the meetings held in their communities. Meetings provide background, present an overview, and identify the issues of concern among neighbors. Community leadership and knowledge will also emerge.

As citizens become interested in the DOE/UMTRAP plan, they may seek further education on the uranium mill tailings project. Reports and documents providing this information are available from any of the following government sources:

1. National Technical Information Service*
   Springfield, Virginia 22161 (technical reports published by the Federal agencies)
2. Technical Information Center*
   U.S. Department of Energy
   Oak Ridge National Laboratory
   Oak Ridge, Tennessee 37830
   (DOE publications and information searches)
3. Uranium Mill Tailings
   Remedial Action Project Office
   Albuquerque Operations Office
   U.S. Department of Energy
   P.O. Box 5400
   Albuquerque, New Mexico 87733
   (reports published from 1979 to present)
4. Remedial Action Program
   Office of Nuclear Waste Management
   NE301, GTN
   U.S. Department of Energy
   Washington, D.C. 20545

In addition to DOE offices and other Federal agencies, citizens may wish to interview site neighbors, local tribal leaders, local elected officials, and state agency personnel to learn what has already been done, and who is the most knowledgeable. Who is making decisions? How are questions being answered? Who is providing community leadership? Who is interested and informed?

*There is a publication charge.

Citizens organized into local civic, environmental, or community service organizations may wish to contact DOE personnel to request a speaker, brochures for distribution, or the UMTRAP movie. In addition, information seminars, informal small group meetings, or local planning visits may be sponsored by citizens' groups. Citizens can also organize weekend workshops in the local schools to explain problems with radiation and DOE's plans to clean up the site and vicinity properties.

Citizens who are particularly interested in the plan for a specific site may serve on the state task force. Task force members, like members of any citizens' committee, have a knowledge of the subject, are willing workers, can express the issues of the community well, and have the spare time to devote to civic duty.

Informed citizens are placed on the UMTRAP mailing list and are informed via the newspapers for project-related announcements. When meetings are planned, local citizens' groups effectively spread the word and call other interested participants to remind them to attend. The most effective participants are those who know the purpose of the meeting and have read related materials in advance.

Citizens who do not wish to speak up at a public meeting but still wish to be heard may write letters or submit written comments; they may also choose to hire or elect a spokesman or representative such as a community interest advocate or an ombudsman. Citizens also may hire experts to review technical documents.

At a public hearing, effective citizens' groups let the organizers know in advance that an individual or group representative will speak. Citizens must state their names, addresses, and affiliations (if any) for the legal record on the transcript. Reports, fact sheets, and supporting documents are often submitted at the hearing; written comments are submitted at the same time, or are mailed to DOE within 30 days after the hearing.

Finally, the overall schedule will point to when decisions are being made. The most influential input is felt early in the decision-making. For example, Federal and state officials may be unaware of a local campaign to have a certain building designated as an historical site. Informing project personnel of this effort at the environmental impact statement (EIS) scoping meeting is more effective than a later complaint that the fact was overlooked when siting criteria were established.

8.0 BENEFITS OF PUBLIC PARTICIPATION IN THE DECISION-MAKING PROCESS

The Public Participation Plan that DOE is following involves a wide variety of actions, including public information meetings; informal workshops; information dissemination programs such as fact sheets, briefings, and movies; seeking advice from advisory committees or task forces; formal and informal public hearings; seeking opinions and reactions from state, local, and tribal officials; and soliciting the views of technical experts, the public, and special interest groups. To encourage the public to participate, DOE is opening as many avenues of communication as possible. The result should provide information to modify and influence decisions of the UMTRA Project. Without this interaction and information the public participation process would not be valuable.

The public input will influence UMTRAP decisions, both policy decisions and technical choices between options. The public expects to weigh the pros and cons of various alternatives proposed; citizens want to know the advantages and disadvantages of the proposed plan in order to compare the acceptability of its risk with that of other alternatives. While the technical experts explain what can be done, the public expects to have input on what should be done.

Technical decisions are strengthened with public input, because the public may raise concerns, issues, and constraints that the technical plan may overlook. Review by independent scientists, for example, from the universities, the National Academy of Sciences, or other groups may raise issues or questions not covered by those engineers and scientists who are involved daily in the program. Outside expertise provides a different perspective on program decisions leading to the eventual remedial action plan.

While a complete review by the public at all stages of planning may actually slow down the remedial action implementation, the public participation process will improve the quality of the government decisions.

APPENDIX A
GLOSSARY

AEC —U.S. Atomic Energy Commission, an early predecessor to DOE.

alpha radiation —positively charged particles emitted by certain radioactive material, made up of two neutrons and two protons, identical to the nucleus of a helium atom. An alpha particle cannot penetrate clothing or the outer layer of human skin.

asphalt emulsion seals —a durable cover to seal radon, over a tailings pile in its disposal configuration.

biobarriers —chemical or physical barriers for plants and animals.

briefing —a summary of findings usually presented to a group with visual aids (charts, slides, vugraphs).

CEQ —Council on Environmental Quality.

community interest advocate —a person hired to serve or appointed to work on behalf of community groups.

comments —public responses to draft and final documents and preliminary findings submitted as written comments or as oral statements presented at meetings and hearings.

cooperative agreement —a legal agreement between the U.S. and a state or Indian tribe to cooperatively carry out remedial actions in accordance with set terms and conditions.

daughter products —nuclides resulting from the radioactive decay of other nuclides. A daughter product may be either stable or radioactive.

decay products —radioisotopes from the disintegration of parent materials.

disposal site —site selected for emplacement of radioactive waste in a repository designed to isolate radionuclides from the biosphere.

DOE —U.S. Department of Energy.

Environmental assessment —an environmental document prepared by DOE to determine if impacts may be significant; may also be a decision document used in planning.

Environmental impact statement (EIS) —document describing the potential environmental impacts of a proposed Federal action.

- Draft EIS —prepared for public comments.
- Final EIS —includes response to comments.
- Site-specific EIS —environmental impacts on a specific site.

EPA —U.S. Environmental Protection Agency.

fact sheet —a summary document that provides the essential facts and figures on the Uranium Mill Tailings Remedial Action Project.

Finding of No Significant Impact —presents reasons why a project will not have a significant effect on the environment; includes environmental assessment or summary of it.

gamma radiation —short-wave-length electromagnetic radiation emitted in the radioactive decay of certain nuclides. Gamma rays are highly penetrating.

general public —the great majority of the population who are not readily identified with any special group or interest.

land withdrawal actions —a legal action taken to reserve public lands for a specific use.

milliroentgen —one one-thousandth of the unit for measuring gamma or x-ray radiation; the roentgen is defined by measuring the effect of the radiation on air. It is that amount of gamma or x-rays required to produce ions carrying 1 electrostatic unit of charge in 1 cubic centimeter of dry air under standard conditions.

Notice of Intent —published in *Federal Register* to announce DOE's intent to prepare an EIS; contains description of proposed action and possible alternatives, description of scoping process, and name of specific DOE contact for information.

NRC —U.S. Nuclear Regulatory Commission.

ombudsman —a community-appointed expert who works directly with an agency.

open land —surface or subsurface land that is not a disposal site and not covered by a building.

picocurie —a curie is a unit of radioactivity. One curie (Ci) equals 3.7×10^{10} nuclear transformations per second. One picocurie is one trillionth of a curie.

processing site —any site, including the mill, containing residual radioactive materials at which all or substantially all of the uranium was produced for sale to any Federal agency prior to January 1, 1971 under a contract with any Federal agency, unless-
...(i) such site was owned or controlled as of January 1, 1978, or is thereafter owned or controlled by any Federal agency, or
...(ii) a license (issued by the Commission or its predecessor agency under the Atomic Energy Act

of 1954 or by a State as permitted under section 274 of such Act) for the production at such site of any uranium or thorium product derived from ores is in effect on January 1, 1978, or is issued or renewed after such date.

public hearing —formal meetings with citizens as required by laws and regulations.

public information meeting —informal periodic meetings with citizens' groups to exchange views and provide information.

public information packet —a loose-leaf collection of fact sheets, brochures, and other UMTRAP written materials.

public interest group —people organized to promote and protect particular public interests and values.

public participation —an organized process in which DOE, in an open manner, actively seeks and considers the views of the public prior to making decisions that affect the public interest.

radioactive —unstable in a manner shown by spontaneous nuclear disintegration, with accompanying emission of radiation and particles.

radioactive decay —the spontaneous transformation of one nuclide into another or into a different energy state of the same one, accompanied by the emission of radiation and particles.

radioactivity —the rate at which radioactive material emits radiation, given in terms of the number of nuclear disintegrations occurring in a unit of time. The common unit of radioactivity is the curie (Ci).

radioisotope —a radioactive isotope of an element.

radionuclide —a radioactive element.

radium—226 —radioactive decay product from uranium.

radon—222 —radioactive decay product from uranium.

regulations —Federal rules published to implement an Act of Congress; published in the U.S. Code of Regulations.

remedial action —stabilization of a contaminated site, or any action found to be necessary to reduce that contamination, performed under Title I of the Uranium Mill Tailings Radiation Control Act.

residual radioactive materials —unprocessed ore and waste in the form of tailings resulting from the processing of uranium ores.

revegetation —replanting a disturbed site or tailings with grasses and herbs to reduce erosion.

rip-rap —a physical covering, consisting of stones to stabilize soil and reduce erosion.

scoping process —determines scope of issues to be addressed by EIS; DOE invites participation of Federal, state, and local agencies; affected Indian tribes; and other interested parties.

standards EPA —EPA has set numerical limits on acceptable levels of radium and decay products under which remedial actions shall be conducted to provide insignificant risk to public health and the environment.

tailings —remaining portion of a metal-bearing ore after some or all of the metal, such as uranium, has been extracted.

task force (citizen/state) —group established by a state to participate in cleanup program and decisions.

vicinity property —any real property or improvement which is in the vicinity of a processing site and which is determined by DOE to be contaminated with residual radioactive materials derived from that processing site.

workshop —an informal gathering of citizens to discuss a specific issue, usually organized to provide a give and take dialogue.

APPENDIX B
BIBLIOGRAPHY

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