

PUBLIC INVOLVEMENT IN CLEANUP - THE ROCKY FLATS EXPERIENCE

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ABSTRACT

The U.S. Department of Energy's Rocky Flats Plant recently completed and implemented the *Rocky Flats Plant Community Relations Plan* for public involvement in environmental restoration of the site. The plan was developed in cooperation with the plant's regulators, the U.S. Environmental Protection Agency and the Colorado Department of Health. In addition, citizens near the plant played a significant role in shaping the document through extensive community interviews and public comment.

The result of these cooperative efforts is a plan that meets and exceeds the applicable federal and state community relations requirements for a cleanup program. In fact, the U.S. Environmental Protection Agency has used the *Rocky Flats Plant Community Relations Plan* as a model for similar plans at other federal facilities. Plan development, however, is only the starting point for an effective community relations effort. The Rocky Flats Plant and the public will face many challenges together as we implement the plan and build a partnership for addressing environmental cleanup issues.

INTRODUCTION

The Rocky Flats Plant, located near Denver, Colorado, is a key U.S. Department of Energy (DOE) facility in the nation's nuclear weapons research, development and production complex. Its primary contribution to the nuclear weapons program has involved the fabrication of components from plutonium, uranium, beryllium and stainless steel. The plant is also capable of maintaining and decommissioning nuclear weapons.

During the early years of plant operation, the public was largely uninformed about the plant and the work that took place there. Some citizens describe a "shroud of secrecy" that covered the plant and its activities, reflecting that it was accepted by much of the community at that time as necessary for the protection of national security.

As the 1970s approached, however, citizens began to question the need for and practices of the nation's nuclear weapons facilities. By the end of the decade, Rocky Flats was the site of many peace and anti-nuclear demonstrations, some of which drew thousands of participants. The demonstrations and the subsequent news media attention served to raise concerns among citizens in the communities surrounding the plant.

Until recently, detailed information about plant operations and their potential effects on public health and the environment was not widely available. This historical lack of information, along with reports of plant accidents, brought about concern and mistrust among many citizens in the Rocky Flats area. The plant's current approach to community relations takes these challenges into account, focusing on the need to build credibility with all elements of the public through open and responsive communications.

Site Description

The Rocky Flats Plant is located approximately 16 miles northwest of downtown Denver and seven to 10 miles from the communities of Boulder, Broomfield, Westminster, Arvada and Golden as shown in Fig. 1. The 384-acre plantsite is

located within a restricted preserve of approximately 6550 acres, which serves as a buffer zone between the plant and the surrounding communities. The plant employs more than 7000 people.

Rocky Flats is directly upstream of two reservoirs, Great Western Reservoir and Standley Lake, which provide drinking water for Broomfield, Westminster, Northglenn and Thornton. Walnut Creek and Woman Creek naturally drain the area from the plantsite into Great Western Reservoir and Standley Lake, respectively. Surface water in the drainages is collected and detained in holding ponds located within the plant's buffer zone as depicted in Fig. 2. This allows for water

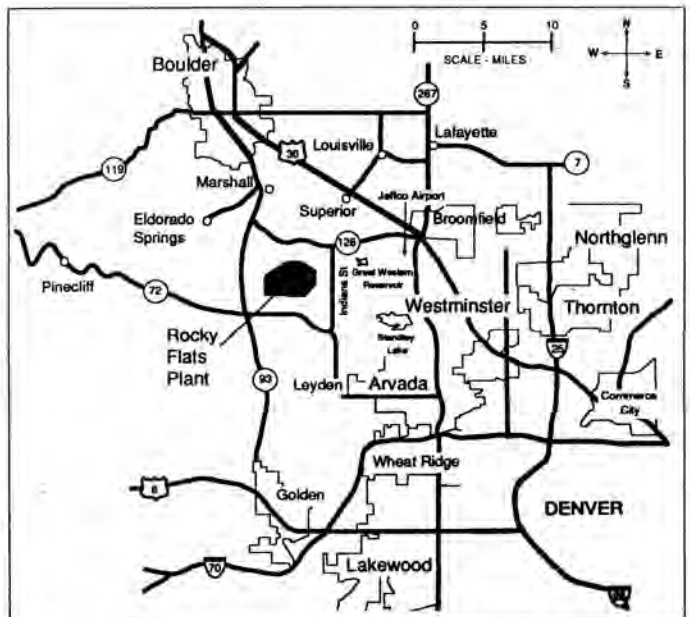


Fig. 1. Map of Rocky Flats Plant and surrounding communities.

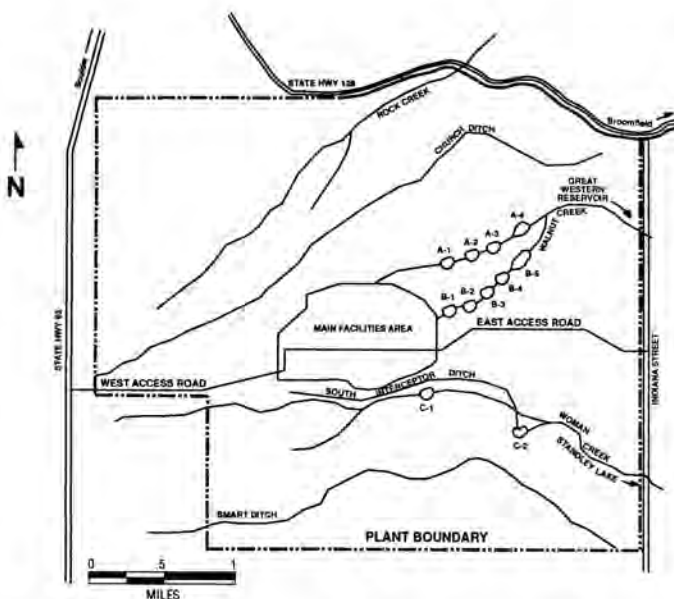


Fig. 2. Surface water drainage and A, B and C-series detention ponds at the Rocky Flats Plant.

sampling, analysis and treatment, if necessary, prior to discharge offsite.

A 1989 population study determined that approximately 50 people live within three miles of the plant. Within this area are ranches that produce crops, raise cattle and breed and train horses. Close to 9000 people live within five miles of the plant, primarily near Standley Lake. Approximately 310,000 people live within a 10-mile radius of Rocky Flats.

History

Plans for the construction of Rocky Flats were announced by the U.S. Atomic Energy Commission in 1951. Operations at Rocky Flats began in 1952 under the management of Dow Chemical U.S.A. Management responsibilities were turned over to Rockwell International in 1975 and then EG&G Rocky Flats, Inc. in 1990. DOE owns the facility and oversees the work of the management contractor.

The operational history of the plant is marked by three major events that are considered the primary sources of radioactive contamination currently detected in soils on and near the plantsite. The first two events were fires that occurred in plutonium processing buildings on September 11, 1957, and on May 11, 1969. Both fires contributed to a release of plutonium to the environment.

The third event, which contributed to most of the contamination at and near Rocky Flats, was the dispersion of plutonium dust from a former waste drum storage area now known as the 903 Pad. Hazardous and radioactive materials stored in the drums leaked into the surrounding soil during the 1960s. After the drums were removed in 1967, winds resuspended and redeposited the contamination, which is now detected in soils east of the plant and in sediments in Great Western Reservoir and Standley Lake. The former drum storage area was partially remediated and covered with asphalt in 1969.

In May 1973, a tritium release was discovered by the Colorado Department of Health in a water sample taken from Walnut Creek. The release occurred in wastewater as a result

of the unanticipated presence of tritium in scrap metal shipped to the plant for recovery and reprocessing. As a result of the incident, the plant improved its methods for detecting tritium and developed flood control ponds and an interceptor ditch to divert runoff water around the plantsite.

In 1986, DOE, EPA and the Colorado Department of Health entered into a Compliance Agreement that defined roles and established milestones for environmental operations and remedial investigations at the Rocky Flats Plant. In accordance with the agreement, DOE identified 178 individual hazardous substance sites where contamination is or may be present as a result of past practices.

In June 1989, the plant was the site of a federal raid, involving EPA, the Federal Bureau of Investigation and the U.S. Department of Justice. The purpose was to gather information in response to allegations of mismanagement and negligent and criminal practices. While no indictments have been issued as a result of the investigation to date, the raid fueled public debate about the plant and its operations.

In September 1989, just three months after the federal raid, Rocky Flats was placed on the Superfund National Priorities List for cleanup under the Comprehensive Environmental Response, Compensation and Liability Act, as amended by the Superfund Amendments Reauthorization Act. The listing was based on the 178 individual hazardous substance sites identified in earlier studies.

These events, coupled with an historical lack of information about the plant, created a climate of uncertainty and distrust among much of the public in the communities surrounding Rocky Flats. For too long, citizens did not receive adequate answers to their questions about plant activities, nor were they provided opportunities to participate in decisions made about the facility and its operations. DOE is now working to rectify the communication problems of the past with the help of EPA, the state and nearby communities.

Interagency Agreement

In late 1989, DOE, EPA and the State of Colorado began development of a Federal Facility Agreement and Consent Order, commonly known as the Interagency Agreement (IAG), to replace the 1986 Compliance Agreement. The purpose of the document was to reflect new requirements of the Superfund Amendments Reauthorization Act, to eliminate jurisdictional problems brought about by different cleanup laws, and to further clarify cleanup priorities. Additionally, the agreement was to set forth activities and detailed schedules for environmental restoration at Rocky Flats.

The draft IAG was issued for public comment in early 1990, and many of the comments received by the three agencies focused on public involvement and information needs. The final IAG, which was signed by DOE, EPA and the State of Colorado on January 22, 1991, committed the agencies to addressing these public involvement and information concerns in a Rocky Flats Plant community relations plan (1).

As a Superfund site, the Rocky Flats Plant is required to develop a community relations plan for informing and involving the public in cleanup of the site. The IAG incorporates the Superfund requirements and expands the community relations commitments beyond these requirements. The *Rocky Flats Plant Community Relations Plan* goes even farther than the IAG and federal cleanup laws, incorporating activities

that meet the information and involvement needs of the local citizens (2).

Public Participation in the Community Relations Plan

DOE, EG&G Rocky Flats, EPA and the Colorado Department of Health approached the development of the community relations plan with three goals in mind. First, we agreed that implementation of the plan should provide citizens with the information necessary to make informed decisions about plant cleanup efforts. Second, the plan should create mechanisms whereby citizen input can influence the cleanup process. Finally, the community relations plan should provide for feedback to the public, demonstrating how their comments, concerns and suggestions have made a difference.

Once the goals were established, the agencies and the EG&G Rocky Flats Community Relations Department set out to gain an understanding of the myriad of public concerns associated with the Rocky Flats Plant by interviewing citizens in the surrounding area. In March 1990, DOE issued a plan to interview close to 100 citizens in the communities surrounding Rocky Flats. The *Rocky Flats Community Interview Plan* was developed in compliance with the IAG and in close coordination with EPA, the Colorado Department of Health and several interest groups (3).

The interview participants included federal, state and local officials; business leaders; educational representatives; health professionals; interest groups; news media; and local residents. These citizens were asked by plant representatives to identify their concerns about the plant and to suggest effective methods of public involvement in cleanup. Information gathered through the interview process provided the basis for the plant's community relations plan.

The community interview process demonstrated that citizens in the communities surrounding the Rocky Flats Plant are generally knowledgeable about the plant, its mission and the associated environmental issues (4). This level of knowledge is attributed primarily to the plant's proximity to a large population center and the significant amount of local news media attention given to plant issues and events. In fact, most interview participants cited the news media as their primary source of information about the plant.

Most of the concerns expressed by the interview participants fell into one of five categories: health effects; environmental issues; economic issues; public information and involvement needs; and defense policy considerations. Many interview participants expressed distrust of plant personnel and, in some cases, regulatory agency officials. They also voiced frustration about not having a role in shaping policy concerning plant activities. Nearly all of the people interviewed asked for improved public access to information and involvement with the plant and its regulators in the environmental restoration process.

At the conclusion of the interview process, it was clear to the plant and its regulators that Rocky Flats needed to make more information available to the public to facilitate effective public participation in decisions about plant activities. It was also clear that information about the plant should be understandable to both technical and nontechnical audiences. In addition, the plant and its regulators agreed that the plant should focus on ways to encourage citizen input and dialogue between plant officials and the public regarding environmental issues.

In January 1991, DOE issued the draft *Rocky Flats Plant Community Relations Plan* for public and regulatory agency review and comment as required by the IAG. During the review period, the plant issued an interim community relations plan for implementation until a final plan was available. Revisions were made to the draft *Rocky Flats Plant Community Relations Plan* in response to the public and agency comments received, and the final plan was issued in December 1991. A responsiveness summary, providing DOE responses to public comments on the draft community relations plan, was issued at the same time (5).

The plan describes many activities and initiatives required by law and the IAG for public involvement in cleanup at Rocky Flats. These include the establishment of information repositories, the availability of an administrative record, the conduct of public meetings and hearings, the development of responsiveness summaries and fact sheets, the publication of public notices about meetings and document availability and the issuance of news releases.

In addition, the plan calls for the public availability of monthly progress reports on environmental restoration, notice of modifications to the IAG and periodic revision of the community relations plan. The plan also reflects requirements concerning timely response to information requests, including those of the Rocky Flats Cleanup Commission, which is the EPA Technical Assistance Grant recipient for the Rocky Flats Plant.

Other activities in the plan are included in response to public needs and desires identified during the interview process. These include a speakers bureau featuring subject experts from the plant, site tours conducted in an effort to demystify the facility, and the operation of a 24-hour toll-free telephone line for public meeting information. Also, the plant publishes the *Environmental Restoration Update* every two months and sends it to nearly 2000 individuals and organizations on the Rocky Flats mailing list.

The plan also calls for plant officials to provide informal briefings, workshops, presentations and discussions upon request. Under this provision, plant officials meet with area municipalities each month to discuss current environmental issues. Rocky Flats also provides presentations as requested to the Rocky Flats Environmental Monitoring Council. The Council, which meets monthly to examine plant issues, receives funding from DOE through an agreement with the State of Colorado.

In addition, the plan establishes a Technical Review Group to provide for early citizen input in the development of work plans for remedial investigation efforts. Through a cooperative effort between DOE, EG&G Rocky Flats, EPA and the Colorado Department of Health, the Technical Review Group was formed in response to concerns that public comment opportunities mandated by federal law occur too late in the process to significantly impact cleanup studies and decisions.

The Rocky Flats Plant Technical Review Group has met approximately monthly since June 1991. Participants include technical representatives of area municipalities, interest groups and universities, as well as EPA, DOE, EG&G Rocky Flats and the Colorado Department of Health. Due to the progress and productivity of the Technical Review Group, EPA Headquarters is currently using the group as a model for

proactive community relations at other federal facilities involved in cleanup.

The community relations plan provides a framework for public involvement and, in many cases, is descriptive rather than prescriptive. This approach provides flexibility in addressing community information and involvement needs as they arise. The plan also serves as an effective mechanism for interagency cooperation in addressing public concerns and questions about cleanup.

Challenges to Effective Community Relations

After nearly two years of work, the Rocky Flats Plant has in place a comprehensive community relations plan that meets and exceeds the requirements of federal cleanup laws and the IAG and that has the blessing of its regulators. However, the plant now faces many challenges to effective implementation.

Some of these challenges are tied to internal or intergovernmental factors. A significant internal factor that could become a challenge in the future is adequate funding. The Rocky Flats Plant competes every year with other facilities in the nation's weapons complex as funding requests move through the federal budgeting process. Commitments made in good faith by DOE are potentially jeopardized by the inherent uncertainties of this funding process.

Effective implementation of the community relations plan is also challenged by the need to have concurrence among three government agencies for IAG-related community relations activities. Timely decisions among the agencies are often difficult given the agencies' differences in size, structure and, most importantly, responsibilities to the public.

Because a good working relationship among the agencies is necessary to implementing a credible and expeditious cleanup program, we must meet this challenge through frequent and open discussions of cleanup progress, problems, plans and ideas. The agencies currently rely heavily on regular telephone contact, written correspondence and monthly meetings to maintain communication about the plant's cleanup activities.

Several external challenges also exist. The Rocky Flats Plant's history of secrecy and lack of credibility with much of the public contributes to the difficulty of informing and involving the public in cleanup decisions. Only through continued openness, honesty and oversight will the plant's credibility be restored. The plant will have to demonstrate over time that DOE's commitment to openness has taken hold in all aspects of plant operation. Until then, community relations regarding cleanup programs will be viewed with suspicion by some members of the public.

Another challenge to effective community relations is posed by differences in the perception of risk. Many environmental restoration activities are guided by determinations of *acceptable* risk as calculated using complex risk assessment scenarios. There is not always agreement among technical experts and citizens potentially affected by cleanup activities concerning what levels of risk are acceptable. Therefore, it is important for the public to understand the risk assessment process and how citizens can be involved in risk related decisions.

The issue of choice further complicates the debate. That is, a risk chosen by a member of the public, such as driving without wearing a seatbelt, can be more acceptable to that person than a risk associated with plant cleanup activities if

the plant's existence and contamination problems are viewed as being imposed on him or her.

DOE, EG&G Rocky Flats, EPA and the state of Colorado began to address this challenge in early 1991 when public discussions of environmental risk assessments brought to light the need for better understanding of how risk is calculated and used in decision making. The agencies joined together to plan and implement a series of risk assessment workshops for area municipalities and interest groups, which were held during the summer. We view this effort as a good beginning but recognize the need to offer more opportunities for learning about this topic.

The technical nature of environmental restoration activities can also hinder communications and community involvement. The Rocky Flats cleanup program will address many complex technical problems with highly technical solutions. Although much of the information can and should be expressed in layperson's terms, certain elements cannot be fully understood without a working knowledge of math and/or science. Nontechnical citizens are often discouraged from participation in cleanup discussions for this reason. The use of fact sheets, workshops and informal briefings to explain technical issues is one avenue for meeting this challenge. Additional methods of public education should be explored, however.

Lastly, effective community relations are challenged by the enormous commitment of time and energy required of citizens who want to be involved in cleanup decisions. Oftentimes, the only people who can devote the necessary effort are paid to do so, either by special interest groups or federal, state or local governments. Those who are not paid for their participation are usually driven by either strong personal support for or opposition to the plant. Although all types of representation are certainly valuable to the Superfund decision making process, the demanding nature of the process does not encourage input from citizens who may not have a predetermined interest in the plant.

As described, many efforts are in place to address these challenges to effective community relations. It is clear, however, that DOE and its regulators must continue to explore and consider methods of involving the public further in discussions and decisions regarding cleanup at the Rocky Flats Plant. The three agencies are committed to improving community relations through constant reexamination and assessment of public involvement opportunities.

CONCLUSIONS

Given the wide range of challenges facing successful implementation of the *Rocky Flats Plant Community Relations Plan*, the Rocky Flats Plant, its regulators and the public must view community relations as a dynamic process. DOE must retain the flexibility necessary to accommodate changing public information and involvement needs as cleanup evolves, while maintaining enough structure and predictability so that the public knows what level of involvement, at a minimum, it can expect to have in the cleanup process.

The Rocky Flats Plant is already seeing positive change in the communities surrounding the facility as a result of the community relations plan. While implementation of the plan began only recently, efforts to date have been successful in bringing the public into the decision making process and, in some cases, generating local support for the plant.

Additionally, development of the plan provided Rocky Flats much *insight into* how a total community relations effort for all plant activities should function.

If the Rocky Flats Plant, its regulators and the public can successfully meet the various community relations challenges, active public participation in cleanup will improve both the plant's understanding of public concerns and the public's understanding of technical issues associated with environmental restoration of the site. DOE and its regulators recognize that a long-term cleanup commitment must go hand-in-hand with an equal commitment to involve the communities surrounding Rocky Flats in the environmental restoration process. Rocky Flats expects that working openly and cooperatively with the public on cleanup will not only improve the plant's credibility with the surrounding communities but, more importantly, will also result in better cleanup decisions overall.

REFERENCES

1. U.S. Environmental Protection Agency, U.S. Department of Energy, and State of Colorado, "Federal Facility Agreement and Consent Order" (January 22, 1991).
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