

# THE ADVISOR

A Publication of the Rocky Flats Citizens Advisory Board

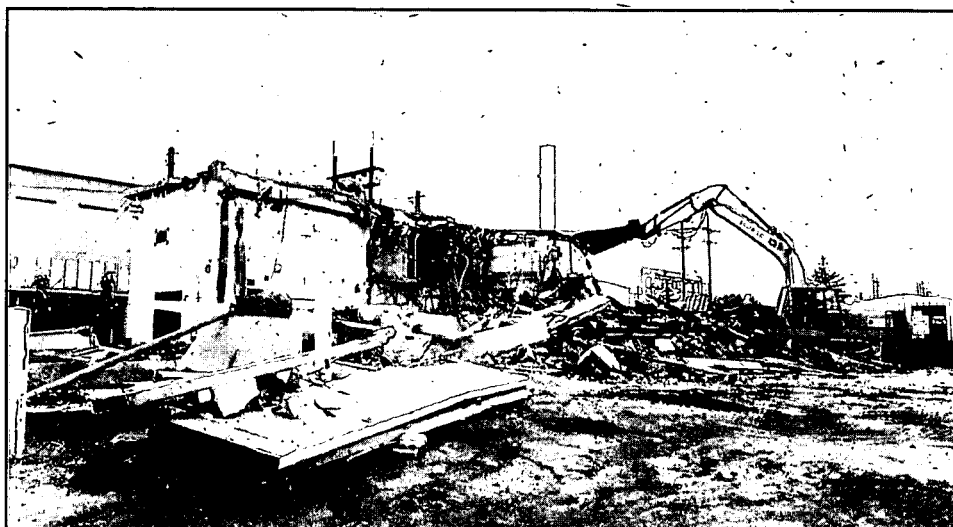
Winter 1996

## Advisory Board Identifies Projects for 1997

In October 1996, the Rocky Flats Citizens Advisory Board approved its work plan for the coming year. The main feature of the 1997 Work Plan is four contract research projects. RFCAB will conduct these research projects in order to gain more information for developing recommendations on important cleanup, waste management, and building decontamination, decommissioning, and demolition issues. Other important work activities slated for 1997 include monitoring progress of plutonium stabilization and other activities at Rocky Flats, examining water quality issues, and tracking the development and implementation of Department of Energy (DOE) planning and budget documents (refer to chart on Page 3).

RFCAB is particularly enthused to begin work on the four contract research projects. The Board views these projects as means to proactively gather information and provide better recommendations to both DOE and the regulators. RFCAB will issue separate Requests for Proposals for each of the projects. Earlier in 1996, the Board advertised for companies interested in performing these research projects, with more than 100 companies expressing their interest.

The first project is to conduct an evaluation of current environmental monitoring both on and off-site at Rocky Flats. In an earlier Community Needs Assessment, members of the local com-



**STORY INSIDE:** Rocky Flats cleanup accomplishments during the last year. Above, Building 889 was demolished earlier this year.

munity expressed a strong desire to maintain adequate, if not redundant, monitoring systems for both air and water quality at and around Rocky Flats. Because of the complexity and uncertainty involved in cleaning up a facility like Rocky Flats, the community would like to see a monitoring system in place that will provide health protection and serve as a record of contamination release from the site. Work on the assessment will begin in January after selection of the contractor is made in late December 1996. Once the information has been gathered, RFCAB will ask the contractor to provide recommendations on how environmental

monitoring might be enhanced and in turn will develop its own set of recommendations to forward to DOE.

In its second research project, RFCAB will ask a contractor to review issues surrounding decontamination, decommissioning, and demolition of nuclear facilities. Because there is limited experience in performing these activities at nuclear weapons facilities, RFCAB will ask the researcher to examine current regulations, standards, industry practices, and case studies within the nuclear industry. Armed with this information, RFCAB hopes to develop a set of recommendations to forward to

*(continued on Page 3)*

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# Rocky Flats Updates



## Soil Action Levels

When the Rocky Flats Cleanup Agreement (RFCA) was signed in July, one section was not yet complete. The Action Levels for Radionuclides in Soil were developed by an interagency working group and released for a public comment period which ended on October 4. Action levels are levels of radioactive materials in the soil at Rocky Flats that will trigger some type of action. This action could be removal, containment, deed restrictions or something else.

The agencies based the proposed action levels on a draft EPA radiation cleanup regulation which calls for annual radiation dose limits of 15 and 85 millirem (mrem) for a site, depending on existing access controls. The Rocky Flats Vision and the Preamble to RFCA designate that the site will be cleaned to open space standards in the Buffer Zone and to industrial standards in the Industrial Area. The working group used these land use scenarios to develop the action levels. The agencies used the more protective case of the following two scenarios — a 15 mrem annual exposure assuming the anticipated land use, or an 85 mrem annual exposure assuming residential use. For the industrial area, 15 mrem/year under an open space scenario was shown to be more protective of human health than an 85 mrem/year residential scenario. For the buffer zone, the 85 mrem/year residential scenario was more protective than the 15 mrem/year open space option.

In October, the Rocky Flats Citizens Advisory Board approved a recommendation asking the agencies to

delay setting specific soil action levels until a national standard is finalized and some other uncertainties can be resolved. On October 18, the Department of Energy, the Colorado Department of Public Health and Environment, and the Environmental Protection Agency announced their decision to accept the action levels as originally proposed. The agencies have emphasized that the action levels will be re-evaluated when new regulations are enacted, when the final site cleanup designation is considered, and every five years after the site is closed.

## National Conversion Pilot Project

The National Conversion Pilot Project (NCP) was initiated in 1994 to determine the feasibility and desirability of interim re-use of DOE facilities during the cleanup. Four Rocky Flats buildings were scheduled for cleanup and possible commercial reuse. Because cleanup of the buildings is behind the original schedule due to funding shortfalls, the Rocky Flats Local Impacts Initiative (RFLII) and DOE have decided to identify a tenant to use the first two buildings before the final two buildings are cleaned up.

DOE and RFLII will be hosting a site tour and Bidders Conference at the end of October. Interested companies must submit a letter of interest by mid-November. They also must commit to participating in a public process as part of the review of their proposal. A sounding board, including members of the public, will be formed to review the concepts proposed by the potential vendors, meet with the interested companies and provide recommendations and input to RFLII. There will also be public meetings as appropriate.

An Environmental Assessment (EA) is being prepared to analyze the potential environmental impacts of the reuse activities. The final EA is expected in March, 1997. The company that is selected to use the buildings will also

need to obtain the appropriate operating permits from the state and EPA. The first lease is tentatively expected to begin in June, 1997. For more information, contact RFLII at (303) 940-6090.

## Ten Year Plan

As described in the last issue of *The Advisor* (Summer/Fall 1996), each of the DOE weapons complex sites was asked to submit a 10-year cleanup plan to DOE-Headquarters, under a new initiative from Assistant Secretary for Environmental Management Al Alm. Each of the sites submitted a draft of this plan in July. More work was done on the plans through September and October, and a final draft was due to Washington on November 15. DOE has committed to continuing public discussions about the plan throughout the next few months.



As a service to our readers, we would like to answer your questions about Rocky Flats issues. Please send, call, fax or e-mail your questions to us by January 20 and we will try to answer them in our next issue.

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# Planning Begins for New Plutonium Storage Vault

In December, the Department of Energy (DOE) plans to release for public review and comment a draft Environmental Impact Statement (EIS) for the new plutonium storage vault at the Rocky Flats site. DOE plans to construct the vault to serve as an interim storage facility until a final repository for the 14 tons of plutonium is found away from Rocky Flats. In a signed agreement with the State of Colorado, DOE has until the year 2015 to remove all plutonium from the site.

Last year, the Rocky Flats Citizens Advisory Board forwarded a recommendation to the Department of Energy

supporting the construction of such a vault. The Board believes that use of the vault will provide a greater level of protection as long as the materials remain on-site. As a caveat, the Board cautioned DOE that the vault should only be used for materials at Rocky Flats. DOE currently has no plans to bring in materials from other sites to Rocky Flats.

As required by federal law, the EIS will examine several alternatives to the vault including using existing buildings that would require significant upgrades and moving the materials to other DOE locations for interim storage. Because of the uncertainties involved in finding

another storage location and guaranteeing the remaining useful life of current on-site facilities, DOE's preferred alternative is to proceed with the construction of the new vault. In its current design, the vault will be underground and will utilize the latest technology to minimize human exposure to the materials.

After the opportunity for public comment on the EIS, a final Record of Decision will be issued. Once the final decision is made to proceed, construction of the vault could begin in late 1998, with completion and movement of materials into the structure by the year 2002.

## **CAB Work Plan** (continued from Page 1)

DOE, the Environmental Protection Agency, and the Colorado Department of Public Health and Environment. This contract research is slated to begin by early spring 1997.

For the third research project, RFCAB has chosen to investigate environmental technology needs for the cleanup of Rocky Flats. The Board hopes to learn if adequate technologies exist to address the problems at Rocky Flats or whether research needs to be directed toward new technologies. The timing for this activity depends on the

results of a related activity now underway at Rocky Flats.

The final area for contract research will examine issues surrounding the storage and disposal of nuclear waste materials. RFCAB will ask a contractor to examine waste management issues including current practices, alternatives, transportation, regulations and standards in order to gain more information to evaluate current proposals at Rocky Flats. A definite time has not been established for this project, but will most likely begin by mid-1997.

## **Highlights of 1997 CAB Committee Activities**

### **Environmental / Waste Management Committee**

- Assess issues surrounding water quality and contaminant source control.
- Research and prepare recommendations on issues surrounding non-radioactive contaminants and chemicals found at RFETS.
- Monitor development of specific cleanup or closure plans for individual hazardous substance sites at Rocky Flats.

### **National Issues Committee**

- Explore issues related to privatizing or outsourcing activities or projects at Rocky Flats.
- Research issues pertaining to the transportation of nuclear materials.
- Track the development of DOE's initiative to institute external regulation and streamline its internal order process.
- Monitor the progress of the National Dialogue on nuclear waste and materials disposition.

### **Health Committee**

- Conduct follow-up activities identified in the Community Needs Assessment.
- Research emergency response issues, including the Community Air Sampling Program and the Emergency Referral Center.

### **Plutonium and Special Nuclear Materials Committee**

- Research plutonium residue issues.
- Assess technologies to enhance the safety and non-proliferation capabilities of stored nuclear materials.
- Monitor the progress of activities to stabilize plutonium and other materials.

### **Site Wide Issues Committee**

- Evaluate and develop comments and recommendations on DOE planning and budget documents.
- Explore ongoing waste management issues, including both storage and disposal, both on and off-site.
- Track the completion of performance measures by DOE contractors.

# STATUS REPORT:

## Rocky Flats Cleanup Activities

Many members of the community around Rocky Flats wonder if anything is being done right now to clean up the site. People often hear that the annual Rocky Flats budget is around \$600 million and that more than 4,000 people are still employed at the site, but are left with questions about the progress of the cleanup effort. The following article summarizes some of the most significant cleanup accomplishments at Rocky Flats during the last 12-18 months. Representatives from Rocky Flats have stated that these achievements amount to more cleanup than was accomplished in the previous five years. However, some members of the public think that cleanup is still not moving fast enough. Perhaps with this information you can judge for yourself.

There are four primary types of cleanup work that must be accomplished at Rocky Flats:

- 1) Nuclear material stabilization, consolidation, and shipment;
- 2) Facility deactivation, decontamination and decommissioning (D&D);
- 3) Hazardous and radioactive waste management;
- 4) Environmental restoration.

The first priority is to reduce the risks posed by improperly-stored nuclear materials. The site is also conducting work in each of the other three areas in order to reduce risks and the amount of resources that are required for site security, maintenance and monitoring.

### Special Nuclear Materials

As of October 1996, over 90% of Rocky Flats' plutonium metal has been brought into compliance with requirements for safe storage. As part of this process, more than 750 plutonium items were brushed and repackaged to reduce potential fire concerns (see photo above). Brushing is a technique that removes buildup of plutonium oxide, which can



*This RFETS worker is brushing a plutonium "button" inside a protective glovebox.*

catch fire in the presence of oxygen. With the completion of this work, over 60% of the total inventory has been addressed. Also, approximately 80% of the plutonium oxide collected through the brushing activities has been stabilized using a thermal treatment process.

Rocky Flats has shipped some nuclear materials, including weapons components and enriched uranium, to other DOE facilities. The specific information about these shipments is classified. In September of this year, Rocky Flats began shipping bottled Highly Enriched Uranyl Nitrate solutions to a facility in Tennessee, where they will be converted into a stable, solid form. These solutions were drained from tanks in Building 886 and represented one of the highest risks for criticality, or a self-sustaining nuclear reaction, at the site.

In an effort to dramatically cut costs associated with plutonium storage, Rocky Flats is consolidating nuclear materials into Building 371. Accordingly, workers

have removed all Category I and II nuclear material items (either finished weapon parts or materials in weapons-usable forms) from Buildings 991 and 779. This consolidation effort has also led to more work on Building 371, including construction modifications to the shipping dock, construction of a new storage vault and internal consolidation of nuclear materials.

In late 1996, Rocky Flats completed the sampling and venting of 84 tanks containing plutonium solutions that had a potential for dangerous hydrogen gas buildup (see photo on Page 5). Hydrogen gas buildup in tanks could cause a release of plutonium solution in a building, posing a risk to workers. Of the 84 tanks sampled for hydrogen gas, 19 needed purging to allow the hydrogen to escape through a filtration system. Similarly, the site completed the venting of drums containing residues. Residues are wastes that contain high levels of plutonium, which

*(continued on next page)*

## **Rocky Flats Cleanup** *(continued from Page 4)*

would have been recovered and reused during the production era. Hydrogen buildup was also a concern with these residue drums.

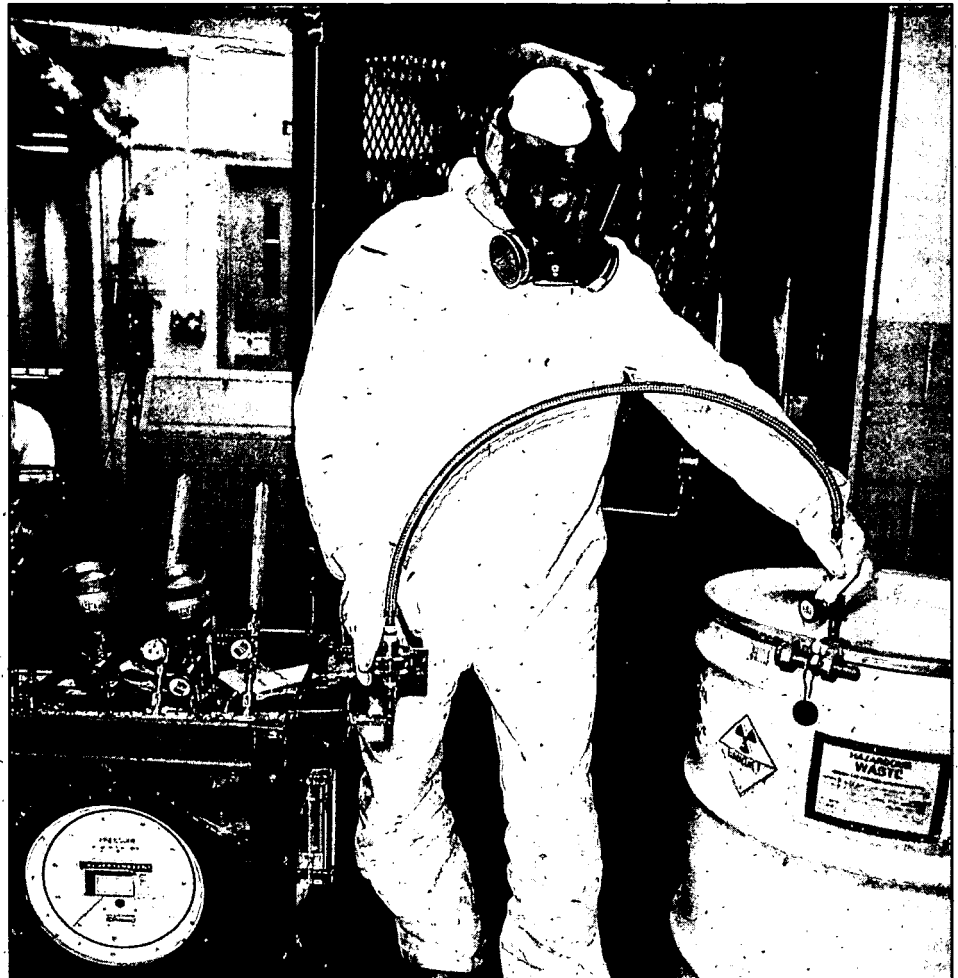
The same tanks that were of concern for hydrogen gas buildup need to be drained of the plutonium solutions they contain. Once drained, the liquids will be processed and stabilized. During the last year, all of the 14 low-level tanks, and four of the nine high-level tanks in Building 771 have been drained. Also, 1,400 liters of the low-level solutions have been stabilized using a cementation process. Five high-level tanks remain to be drained in this building, along with eight tanks in another building.

### **Facility D&D**

During 1996, Rocky Flats demolished the first radioactively-contaminated building on-site. During production, Building 889 was a radioactive waste repackaging facility. The contaminants, including uranium, beryllium and asbestos, were removed prior to demolition. Site workers also have begun deactivation of the first plutonium-contaminated building at Rocky Flats. Work in Building 779 includes removal of nuclear materials and excess chemicals, removal of waste drums, and scanning of gloveboxes for contamination. To date, 99% of the nuclear materials have been removed from the building. Building 779 is scheduled for demolition in fiscal year 1997.

### **Waste Management**

According to Kaiser-Hill, during the last year the rate of shipment for low-level mixed waste has kept pace with new waste generation. Rocky Flats has less low-level mixed waste on-site now than they did a year ago. During this time, Rocky Flats shipped approximately 40,000 cubic feet of low-level and low-level mixed waste to offsite disposal facilities in Nevada and Utah. This equates to approximately 7,000 55-gallon drums of waste.



*Rocky Flats worker testing transuranic waste drum for hydrogen gas buildup.*

### **Environmental Restoration**

In 1996, site workers completed remediation of two of the top 10 highest risk hazardous substance sites at Rocky Flats. Trenches T3 and T4 were former waste disposal areas. Chemicals buried in these areas were found to be contaminating groundwater on-site. The remediation consisted of excavation of soil, thermal treatment to remove the volatile organic compounds, and replacement of the soil. However, during the completion of this work, there was a spill of uranium from an excavated waste drum. The CAB will be tracking the safety implications of this accident. Another of the top 10 high risk hazardous substance sites, a chemically-

contaminated disposal area known as Ryan's Pit, was remediated in late 1995. These soils were also treated using the same low temperature thermal desorption process that was used at the trenches. Other recent environmental restoration activities include cleanup of several PCB contaminated areas and stabilization of 28 underground storage tanks.

The CAB will continue to track Rocky Flats cleanup efforts. There are numerous opportunities for citizens to learn more about cleanup plans and progress and even to provide input to Rocky Flats about these activities. Contact the CAB office at (303) 420-7855 for more information.

**Site-Specific  
Advisory Boards**

**A R O U N D**

**THE DOE WEAPONS COMPLEX**

**This Issue: Sandia / ITRI Citizens Advisory Board**

*The Rocky Flats Citizens Advisory Board is one of several Site-Specific Advisory Boards (SSABs) that have been formed at former nuclear weapons production sites. In each issue of The Advisor, we spotlight the activities of one of these boards.*

Established in 1945 as part of the Manhattan Project, which built the first nuclear weapons, Sandia National Laboratories has functioned for more than 50 years as one of the major national defense research and development labs - the engineering arm of the nuclear weapon development program. Today Sandia has two primary facilities, one in Albuquerque, New Mexico, and one in Livermore, California. Sandia employs about 8,000 people with a budget of more than \$1.2 billion per year. The New Mexico lab operates on acreage within and adjacent to Kirtland Air Force Base and is bordered by the City of Albuquerque, the Cibola National Forest, the Isleta Pueblo-Indian Reservation, and Albuquerque International Airport.

Sandia has evolved into one of the country's largest technical resources. It is a multi-program national laboratory with research and development program in many fields, including fundamental energy research, energy conservation and renewable energy, nuclear reactor safety and reliability, nuclear waste management, and magnetic-confinement fusion. Two other programs are part of its current mission, environmental restoration and waste management.

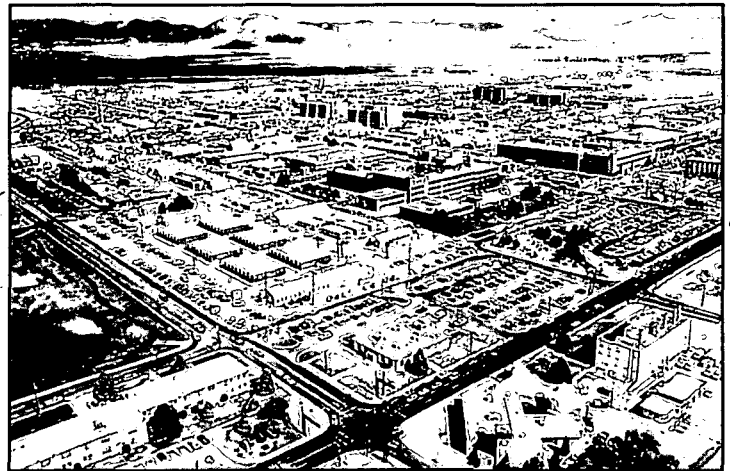
In June 1995, the Citizens Advisory Board (CAB) for Sandia was convened to provide DOE with broad community-based advice on the cleanup process for Sandia. During its first eight months,

CAB members worked diligently on two agendas: to move through its formative process, and to begin orientation about the sites requiring their advice. The Board added a third agenda, creating a process for evaluating its work and formation.

CAB has four active committees: Executive/Agenda, Future Land Use, Public Involvement, and CAB Budget/Planning. There are also three ad-hoc committees: Bylaws, Self Evaluation, and DOE Budget. It is currently forming an Issues Committee.

The Board has given several recommendations for future land use in the following areas at the site: Sandia's five Technical Areas established and developed beginning in 1945 through 1979, some of which were active under the Manhattan District; the "Withdrawn Area" constituting a portion of the Cibola National Forest withdrawn from public use by DOE and the Department of Defense; and for the majority of the physical area of Kirtland Air Force Base.

CAB also agrees with the recommen-



*An aerial view of the Sandia National Laboratories complex, located near Albuquerque, New Mexico.*

dation that DOE pursue the construction of a Corrective Action Management Unit, a storage, treatment and containment facility for wastes generated at Sandia that have been received from sites designated for environmental restoration.

In addition, the Board recommended that DOE request for FY 98 a budget of \$30 million per year for Sandia's waste management and environmental restoration programs. CAB is concerned there will be a \$11 million shortfall and a two-year delay in cleanup, which would result in a cost increase of 10 to 20 percent for environmental restoration.

The Board continues to monitor groundwater contamination issues and proposed or potential plutonium shipments to Kirtland Air Force Base.

## **Rocky Flats Citizens Advisory Board Seeks New Members**

If you are interested in applying to become a member of the Rocky Flats Citizens Advisory Board, please complete this form and return it to the address listed below.

Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Daytime phone number: \_\_\_\_\_ Evening phone number: \_\_\_\_\_

**Return this form to:** Rocky Flats Citizens Advisory Board, Membership Committee, 9035 North Wadsworth Parkway, Suite 2250, Westminster, CO 80021 (or fax to us at 303-420-7579). When the completed form is received, we will forward to you a membership application packet.

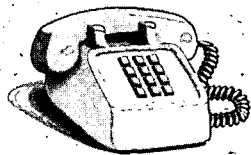


### **CHECK OUT... CAB'S WORLD WIDE WEB PAGE**

<http://www.indra.com/rfcab/>

(also e-mail address: [rfcab@indra.com](mailto:rfcab@indra.com))

Visit us on the Internet to access CAB recommendations, Board meeting minutes, newsletter articles, Rocky Flats frequently-asked-questions and more!!!



**And don't forget....**

**CAB'S Public Comment Message Line (303) 637-4808**

Call 24 hours a day to record your opinions, comments, or suggestions.  
All comments will be reviewed by the Board.

*The Advisor* is published quarterly by the Rocky Flats Citizens Advisory Board (CAB). The Executive Editor is Tom Marshall. Please send your questions, suggestions and ideas to:

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Except as noted, all articles are written by CAB staff: Erin Rogers, Ken Korkia and Deb Thompson. To request a change of address or to add or remove your name from the mailing list, contact Deb Thompson at the above address and phone number. Material may be reprinted if credit is given. CAB is funded under a 1996 grant of approximately \$391,000 sponsored by the U.S. Department of Energy.

### **CAB MISSION STATEMENT**

*The Rocky Flats Citizens Advisory Board, a nonpartisan, broadly representative, independent advisory board with concerns related to Rocky Flats activities, is dedicated to providing informed recommendations and advice to the agencies (Department of Energy, Colorado Department of Public Health and Environment and the Environmental Protection Agency), government entities and other interested parties on policy and technical issues and decisions related to cleanup, waste management and associated activities. The Board is dedicated to public involvement, awareness and education on Rocky Flats issues.*

# Rocky Flats Public Meeting Calendar

## December

5	<i>Rocky Flats Citizens Advisory Board Meeting</i>	6 - 9:30 p.m.	Arvada Center
9	<i>CAB Site Wide Issues Committee</i>	7 - 9 p.m.	Westminster City Hall
16	<i>CAB National Issues Committee</i>	6:30 - 8:30 p.m.	CAB office
17	<i>CAB Plutonium and SNM Committee</i>	7 - 9 p.m.	Westminster City Hall
19	<i>CAB Environmental/Waste Management Committee</i>	7 - 9 p.m.	Westminster City Hall

## January

2	<i>Rocky Flats Citizens Advisory Board Meeting</i>	6 - 9:30 p.m.	Westminster City Hall
6	<i>CAB Site Wide Issues Committee</i>	7 - 9 p.m.	Westminster City Hall
13	<i>CAB National Issues Committee</i>	6:30 - 8:30 p.m.	CAB office
16	<i>CAB Environmental/Waste Management Committee</i>	7 - 9 p.m.	Westminster City Hall
21	<i>CAB Plutonium and SNM Committee</i>	7 - 9 p.m.	Westminster City Hall

## February

6	<i>Rocky Flats Citizens Advisory Board Meeting</i>	6 - 9:30 p.m.	Westminster City Hall
10	<i>CAB Site Wide Issues Committee</i>	7 - 9 p.m.	Westminster City Hall
17	<i>CAB National Issues Committee</i>	6:30 - 8:30 p.m.	CAB office
18	<i>CAB Plutonium and SNM Committee</i>	7 - 9 p.m.	Westminster City Hall
20	<i>CAB Environmental/Waste Management Committee</i>	7 - 9 p.m.	Westminster City Hall

ALL MEETINGS ARE SUBJECT TO CHANGE, PLEASE CALL BEFORE YOU GO: (303) 420-7855

- CAB's Health Committee meets on an ad-hoc basis, please call for schedule
- Rocky Flats' public meeting schedule has not yet been determined, please call for updated information

Westminster City Hall: 4800 West 92nd Avenue, Westminster  
Arvada Center for the Arts and Humanities: 6901 Wadsworth Boulevard, Arvada  
CAB office: 9035 North Wadsworth Parkway, Suite 2250, Westminster

## Rocky Flats Citizens Advisory Board

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