EG&G ROCKY FLATS
Rocky Flats Plant
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UPDATE

Environmental Management

A Period[illegible] Cleanup

October/November 1993

EG&G ROCKY FLATS

75 Visitors Witness EPA "Polishing" the Water at Rocky Flats

The U S Department of Energy and the U S Environmental Protection Agency (EPA) Region VIII have joined forces in a cooperative effort to test and demonstrate an innovative technology at the Rocky Flats Plant as part of EPA's Superfund Innovative Technology Evaluation program This is the third time a technology under this program has been demonstrated at a Department of Energy facility

The technology called Filter Flow Technology Colloid Polishing Filter Method was developed by Filter Flow Technologies Inc of League City Texas and is being evaluated for its ability to treat groundwater and wastewater contaminated with low concentrations of radionuclides In particular the demonstration was scheduled to measure the technology's effectiveness in removing uranium and gross alpha emitting contaminants

If this technology proves to be effective we might recommend using it to remediate water here (at Rocky Flats) says Arturo Duran remedial project manager for the Environmental Protection Agency

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What is Colloid Polishing Filter Method (CPFM)

The Colloid Polishing Filter Method uses specially designed filter beds in a filter press unit to treat water contaminated with low concentrations of radionuclides This particular demonstration treated groundwater collected in an interceptor trench surrounding the solar evaporation ponds located at the Rocky Flats Plant

Continued on page 2

"Accelerate" A new word in the Rocky Flats Dictionary

For the first time at Rocky Flats an element of the cleanup schedule as outlined in the Interagency Agreement has been accelerated As a result the Solar Evaporator Ponds will be closed 16 months earlier than originally called for in the 1991 Interagency Agreement signed by the Department of Energy Colorado Department of Health and Environmental Protection Agency

We wanted to identify the reasons why we were having problems meeting our deadlines said Richard Schassburger Department of Energy s Acting Deputy Assistant Manager for Environmental Restoration Some things have taken much longer than they should have so we looked at ways of streamlining the administrative process to eliminate some of these risk

Because of this analysis new procedures were developed to streamline administrative activities

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ADMIN RECORD

A-SW-000903

DOCUMENT CLASSIFICATION
REVIEW WAIVER PER
CLASSIFICA[illegible]

Developing & Improving Cleanup
Continued from page 3

Problems and issues facing Department of Energy facilities
Public involvement in the cleanup process
Latest in available characterization and remediation technologies
Characterization and remediation practices at Department of Energy sites
Risk assessment and analysis

While the workshops were an essential part of the conference not all learning experiences happened in the classroom Exhibit halls were set up at both conferences to allow companies and facilities to more graphically talk about their site and the ongoing work In addition it allowed industries to show potential users how their particular technologies could enhance characterization and cleanup processes

Vital Stats

Environmental Remediation 93
Conducted biennially by the Department of Energy to provide an opportunity for environmental professionals and managers from DOE its contractors state and federal regulators and private industry to exchange ideas and discuss current environmental restoration technologies successes and challenges
More than 900 people attended
Theme Meeting the Challenge

Fifth National Technology Information Exchange Workshop
Sponsored by the DOE Office of Environmental Management Headquarters (EM 40) and hosted by DOE Rocky Flats Office for DOE staff and contractor personnel personnel from other federal agencies and industry involved in environmental restoration work
More than 520 people attended
Theme Committed to Cleanup

FRONTLINE or Headline?

Recently FRONTLINE ran a story entitled Secrets of a Bomb Factory regarding Rocky Flats that understandably may have caused a great deal of concern

Unfortunately the FRONTLINE story focused on past controversial issues and management practices and failed to acknowledge the positive cleanup and waste management efforts that have taken place over the last few years including our change in mission

In fact many of the comments throughout the program are misleading and in some cases are inaccurate For example

FRONTLINE asserts that visitors are not welcome at the Rocky Flats Plant On the contrary the plant hosted more than 3 000 visitors during fiscal year 1993 including members of the public students interest groups oversight and advisory committees and news media

The program claims that the plant was unresponsive to a request to tour inside buildings The crew was not provided access to secured areas of the plant because the high costs involved in this effort were not justified given that a secured area building tour for stakeholders and all local news media had been conducted just weeks prior to FRONTLINE s request — and commercial quality videotape from this tour was available through all the local news outlets FRONTLINE never responded to the site s offer to supply existing videotape of buildings of interest and to shoot new videotape of these buildings on their behalf The fact is since 1991 the plant has demonstrated unprecedented openess by bringing stakeholders and news media with cameras into production area buildings never before open to the public Local reporters who cover Rocky Flats issues routinely have publicly noted the positive change in site and personnel accessibility

Although the FRONTLINE story was developed by conjecture for an emotional response rather than facts it did bring to our attention the continued need to keep in touch with our communities to address questions and concerns to issues raised in the news If at anytime you have questions or concerns regarding Rocky Flats please feel free to contact

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or

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RF Dictionary *Continued from page 1*

Some of these activities include
Joint review of documents
Weekly meetings with a forum of DOE EG&G and agency representatives
Changes in milestones (see schedule in box)

To have overcome these challenges with a commitment to earlier pond closure is a significant achievement for the environmental restoration program It s the first time that the remedial work will start sooner than required by the Interagency Agreement said Schassburger

While three of the five solar ponds are already dry approximately 700 000 gallons of sludge will be pumped from the remaining two ponds and stored in doubled walled polyethylene tanks at the Rocky Flats Plant until a permanent storage facility is identified The schedule calls for the solar ponds to be dry by January 20 1995

Currently non operational the five solar evaporation ponds were used beginning in 1953 to store and evaporate production related process water that contained nitrates treated acidic wastes and low levels of radioactivity Production use of these ponds was stopped in 1985

OU4 Interagency Agreement Milestones

Description	Current Date	Proposed Date
Submit draft Phase I RCRA Facility Investigation/ Remedial Investigation (RFI/RI) Report	N/A	Delete
Submit Final Phase I RCRA Facility Investigation/ Remedial Investigation (RFI/RI) Report	N/A	Delete
Submit draft Proposed Interim Measure/Interim Remedial Action (IM/IRA) Design Document (with enhanced conceptual design)	4-14-94	4 14 94
Submit Proposed Interim Measure/Interim Remedial Action (IM/IRA) Design Document	9 12 94	6 24 94
Submit Interim Measure (IM) Design Workplan (replaced with in process design review)	5 24 95	Delete
Submit Interim Measure/Interim Remedial Action (IM/IRA) Response to Comments Summary	1 25 95	11 1 94
Submit Final Interim Measure/Interim Remedial Action (IM/IRA) Design Document and Response to Comments Summary	4 24 9	1 13 95
Submit Interim Measure/Interim Remedial Action (IM/IRA) Implementation Document (combined with Title II Design Submittal)	2 26 96	Delet
Submit final Interim Measure/Interim Remedial Action (IM/IRA) Title II Design	6 24 96	2 10 95
All Solar Ponds emptied of water and sludge	New	1 20 95
Begin Actual Interim Measure/Interim Remedial Action (IM/IRA) Construction	1 28 9	9 27 95

2 More Avenues for developing and improving cleanup technologies

In an ongoing effort to develop and improve cleanup technologies Rocky Flats recently took part in two conferences Environmental Remediation 93 in Augusta Georgia and the Fifth National Technology Information Exchange Workshop in Denver Colorado Both conferences included workshops panel presentations open discussion periods poster sessions and exhibit areas

Although both conferences had record breaking attendance the Technical Information Exchange Conference was the first time the Department of Energy Rocky Flats Office hosted such an event It was very exciting to see so many Rocky Flats people able to participate in the exchange of ideas said Scott Grace Department of Energy Rocky Flats Technology Information Exchange coordinator With over 520 attendees we were excited to host the largest Technology Information Exchange conference to date and to provide a tour of the facility

Exchanging Ideas

These conferences provide opportunities for the technical and programmatic exchange of ideas on major topics related to the remediation of Department of Energy sites and facilities The most important aspect to these meetings is that it allows managers technical specialists work supervisors and project engineers who are involved in cleanup activities at various levels to come together

Topics of the various workshops at both conferences included
Success stories/failures of facilities/lessons learned

Continued on page 6

Polishing the water at Rocky Flats *Continued from page 1*

The contaminated water was pumped from the interceptor trench pumphouse to on site storage tanks which provided influent for the Colloid Polishing Filter Method system The treated water was then routed back to storage

During the September 1993 two week demonstration up to five gallons of water per minute were treated and samples were collected at key locations and analyzed to determine the effectiveness of the treatment technology

There was a series of four six hour tests and one 15 hour test to measure the technology s effectiveness in removing uranium and other radioactive contaminants said Annette Gatchett project manager for the Environmental Protection Agency

A small scale field study of the Colloid Polishing Filter Method technology had been previously conducted at a uranium mining facility in Texas In addition two more small scale laboratory studies were completed at Rocky Flats in September 1991 in which uranium removal efficiencies for the Rocky Flats tests ranged from 98 9 to 99 6 percent According to Scott Grace scientist in the Department of Energy s Environmental Restoration Program I am expecting the results of the current experiment to match those of the laboratory test

Final Report

This demonstration will be useful in deciding whether the Colloid Polishing Filter Method technology is an effective alternative for cleaning up similar hazardous waste sites across the country This technology will be evaluated by determining

- How effectively the technology removes contaminants such as radionuclides in the groundwater and
- Whether the treated water and filter cake meet established cleanup goals that are established for drinking water by the Colorado Department of Health

The Environmental Protection Agency has prepared a detailed demonstration test plan that outlines the methods and procedures for testing and evaluation A report summarizing the demonstration results will be issued September 1994 approximately one year following completion of the demonstration A limited number of copies of the report will be available at no charge from

EPA s Center for Environmental Research Information
26 West Martin Luther King Drive
Cincinnati Ohio 45268

Reference copies will be available at EPA libraries in the Hazardous Waste Collection

Historic Transfer: Rocky Flats has a New Landlord

In a landmark move in the transition of the Rocky Flats Plant to a new environmental cleanup mission the Office of Environmental Management replaced the Office of Defense Programs as the landlord of the plant October 1 1993

Brand new priorities including environmental restoration and economic conversion will pilot Rocky Flats into a new era of cleanup said Thomas Grumbly assistant secretary for the Office of Environmental Management

The Office of Environmental Management will manage all Rocky Flats facilities with the exception of four non nuclear manufacturing buildings and their support facilities and the metal working Oxnard facility in California required to support the close out production responsibilities retained by DOE s Office of Defense Programs

The Environmental Management Program assumed management responsibility for $335 7 million in capital budgets for fiscal year 1994 classified documents equipment and onsite consolidation of nuclear materials

Initial transition activities took place earlier this year when five buildings and residues were transferred from Defense Programs to Environmental Management January 15 1993 That move was the first time former nuclear manufacturing facilities at Rocky Flats were transferred to Environmental Management

FEEDBACK

Let us know what you think about this Update

Fax or mail your comments questions or suggestions to

FAX (303) 966-6153

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WHOOPS -

The August/September 1993 issue of *Environmental Management Update* featured an article entitled New Use for Plastics" Thanks to an alert reader we are correcting a misprint regarding operating temperatures for polymer stabilization The article stated "The process operates at a maximum temperature of 1800 C " It should read "The process operates at a maximum temperature of 180 C requires no off gas treatment and generates no secondary waste " As long as we re talking about polymer encapsulation we thought you d like to hear the latest!

Treating Waste with Waste?

(written by Carla Sanda EG&G Community Relations)

We passed — we met all regulatory requirements for the waste form said Andrea Faucette a Principal Investigator in EG&G s Technology Development Group Andrea heads an 11 member research team that is investigating the possibility of treating and stabilizing several mixed waste streams by encasing them in polymer — or plastic — material

Rocky Flats has a large volume of mixed wastes (waste materials containing both radioactive and hazardous constituents) that are subject to land disposal restrictions within the provisions of the Resource Conservation and Recovery Act Land disposal restrictions require that these wastes be treated by a specified technology or meet specific standards before they can be considered for disposal at a licensed hazardous waste landfill And that s exactly what the team has accomplished with nitrate salts from Building 374 Andrea went on to say that they are taking this process a step further by experimenting with the possibility of using recycled plastics to encapsulate wastes actually treating waste with waste! Research is continuing to evaluate the pros and cons of polymer encapsulation but so far it looks like a promising waste management solution

Public Invited to Use Reading Rooms

The following reading rooms contain current information technical reports and reference documents on environmental restoration at the Rocky Flats Plant

Rocky Flats Plant Reading Room
Front Range Community College Library
3645 West 112th Avenue
Level B Center of Building
Westminster Colorado 80030
(303) 469 4435
Hours
Monday Tuesday 10 30 am 6 30 pm
Wednesday 10 30 am 4 00 pm
Thursday Friday 8 00 am 4 00 pm

Citizen s Advisory Board
1536 Cole Boulevard Suite 325
Denver West Office Park Building 4
Golden Colorado 80401
(303) 232 1966
Hours
Monday Friday 8 30 am 5 00 pm

EPA Superfund Records Center
999 18th Street Suite 500
Denver Colorado 80202 2405
(303) 293 1807
Hours
Monday Friday 8 00 am 4 30 pm

Colorado Department of Health
Hazardous Materials and Waste Management Division
4300 Cherry Creek Drive South
Bldg A
Denver Colorado 80222 1530
(303) 692 3312
Hours
Monday Friday 8 00 am 5 00 pm

Standley Lake Library
8485 Kipling Street
Arvada Colorado 80005
(303) 423 4600
Hours
Monday Friday 10 00 am 9 00 pm
Friday Saturday 10 00 am 5 00 pm
Sunday 12 00 pm 5 00 pm

United States Department of Energy
Freedom of Information and Privacy Branch Office
1000 Independence Avenue S W
Washington D C 20585
(202) 586 6025
Hours
Monday Friday 9 00 am 4 00 pm
(Eastern Time Zone)

Information Repository

Environmental Management

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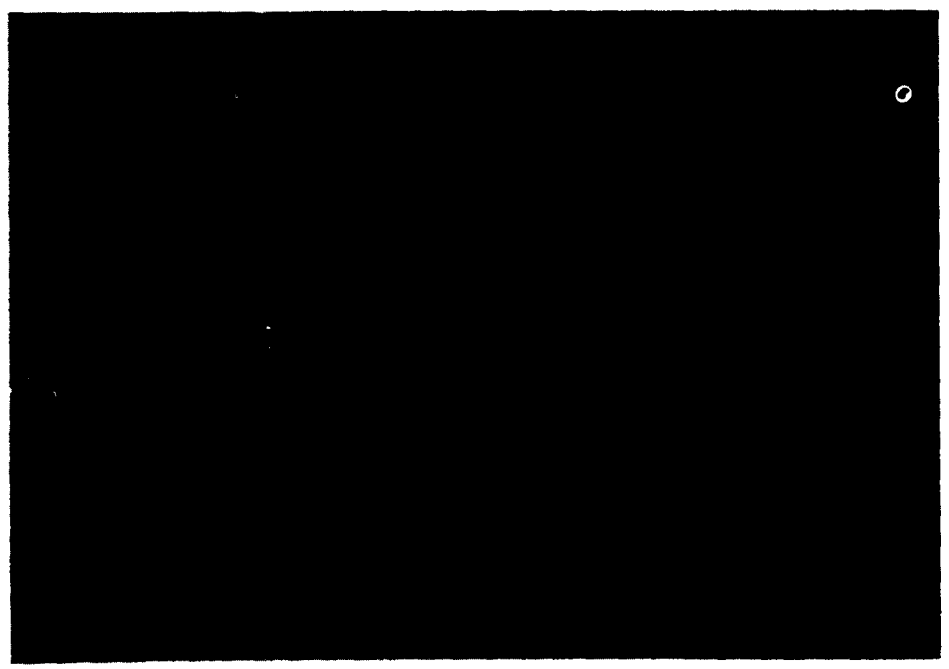
Dust-Buster Given New Meaning at Rocky Flats

Left Th d st b g i g wh l ew m g t h p y d ll th f l y f i t l

B l w A ft b g m l N h l h g wh th t p l y h s b i l



A new commercially available cleanup technology called dustless decontamination is removing radioactivity from concrete walls and floors at the Department of Energy s Rocky Flats Plant in a way that is safer to workers and the environment This dust busting system removes contaminants without chemicals such as stripper solvents used by current decontamination procedures but discouraged by the Resource Conservation and Recovery Act

Depending on the size of the surface to be cleaned dustless decontamination uses either a piston device or a needle gun in coordination with a vacuum system The pistons pound repeatedly to crush the upper layer of the contaminated concrete surface Then the radioactive contaminants concrete and paint particles are suctioned through a hose by the vacuum system directly into a waste drum without creating any dust The vacuum system is equipped with filters to keep particles out of the work environment For hard to reach surfaces a hand held needle gun attached to a vacuum and filter system is used instead of the piston

Dustless decontamination could have widespread applications at Rocky Flats as there are several building interiors with surface radioactive contamination In addition this technology could prove useful throughout the energy defense and nuclear industries due to the need for decontamination methods that do not generate chemical waste

After a 6 month successful demonstration this technology which can decontaminate up to 30 square feet per hour is scheduled for application in several other plant facilities later this year

Announcing- Interagency Agreement to be Revisited

The Department of Energy has requested that there be a review of the Interagency Agreement in an effort to conduct cleanup better faster and more cost effectively The reason the Department of Energy requested this review is that the agreement does not

Reflect the current mission of the plant

Reflect current field conditions

During the time the Interagency Agreement is being reviewed Rocky Flats will continue to work toward the milestones already established in the agreement Review of the current Interagency Agreement will focus on the possibility of reprioritizing cleanup work that could delay certain milestones and accelerate others based on the new plant mission The goal will be to accomplish portions of the cleanup on an accelerated timeframe through interim remedial actions

History

The Draft Interagency Agreement signed December 1989 and Final Interagency Agreement signed January 22 1991 by the U S Department of Energy the U S Environmental Protection Agency and the Colorado Department of Health establishes milestone dates for the completion of certain environmental restoration activities for cleanup at the Rocky Flats Plant This agreement is a legally enforceable document with 268 specific milestones and time frames for remedial actions as well as penalties for noncompliance with the agreement

The Interagency Agreement establishes the parameters for cleanup of potential radioactive hazardous and mixed waste contamination resulting from past operations at 178 Individual Hazardous Substance Sites (IHSSs) at Rocky Flats which are organized into 16 Operable Units (OUs)

During negotiations from 1989 to 1991 the original Interagency Agreement milestones were based on available field conditions and time frames that were thought to be achievable at that time The agreement established fixed schedules for a work scope that at that time was not well known or well defined and is in fact still evolving

Today the Interagency Agreement needs to be reviewed based on the new plant mission and the associated potential reprioritization of work A lot has been learned in the past few years regarding environmental restoration including budget requirements for cleanup Reviewing the Interagency Agreement will provide a good opportunity to incorporate some of the lessons learned into the agreement

Public Involvement

In an effort to keep the general public up to date on the Interagency Agreement review a status report will appear in each issue of the ***Environmental Management Update*** Also included in the status report as the information becomes available will be ways the public can become involved in the review process

For more information regarding the Interagency Agreement or other Environmental Management activities at the Rocky Flats Plant please contact Toni Moore EG&G Community Relations at (303) 966 6616

Statu

O tober 1993 S r r manager fr m the E n r nm ntal Pr te tion Ag n v d th C lorad Dep rtm nt f He alth met with th D p rtment f Energy A t ant S r tary for Envir mm nt l Mana ement Thoma C rumbl to ch u s r v wing the Int rag r e Agre ment

Nov mber 1993 Ro ky Flat per nn l vi it the Hanford fa ility t rev w the le n l arn fr m that fa ility re ent sp ri n with ren gotiating th n Int r Ag r m nt with the tat of Wa hing n and th Environm nt l Pr t ction Ag n R g n Fi e

Novemb r 1993 Each of the partie to th agre ment Envi n mental Pr t ction Ag n v Colorado De partment of H alth and De partm nt f Energy n med Int rag n v re ew t am The team will tabli h ver the n xt month whe her the current agre m nt n ed to be modified and if c what portions of th agr ment and through what forums

Future

Public involv ment d tail to be developed by re ew teams in conjunction with Citizens Advisory Board input