

ROCKY FLATS STEWARDSHIP COUNCIL

Monday, April 2, 2012, 8:30 AM – 11:30 AM

**Rocky Mountain Metropolitan Airport, Terminal Building, Mount Evans Room
11755 Airport Way, Broomfield, Colorado**

Board members in attendance: Shelley Cook (Director, Arvada), Jim McCarthy (Alternate, Arvada), Lisa Morzel (Director, City of Boulder), Tim Plass (Alternate, City of Boulder), Deb Gardner (Director, Boulder County), Meagan Davis (Alternate, Boulder County), Greg Stokes (Director, Broomfield), Mike Shelton (Alternate, Broomfield), David Allen (Alternate, Broomfield), Bill Fisher (Director, Golden), Kate Newman (Alternate, Jefferson County), Joyce Downing (Director, Northglenn), Shelley Stanley (Alternate, Northglenn), Joe Cirelli (Director, Superior), Eric Tade (Director, Thornton), Emily Hunt (Alternate, Thornton), Bob Briggs (Director, Westminster), Mary Fabisiak (Alternate, Westminster), Shirley Garcia (Director, Rocky Flats Cold War Museum), Ann Lockhart (Alternate, Rocky Flats Cold War Museum), Roman Kohler (Director, Rocky Flats Homesteaders), Jeannette Hillery (Director, League of Women Voters), Arthur Widdowfield (citizen).

Stewardship Council staff members and consultants in attendance: David Abelson (Executive Director), Rik Getty (Technical Program Manager), Barb Vander Wall (Seter & Vander Wall, P.C), Erin Rogers (consultant).

Attendees: Vera Moritz (EPA), Carl Spreng (CDPHE), Marilyn Null (CDPHE), Scott Surovchak (DOE-LM), Bob Darr (Stoller), Rick DiSalvo (Stoller), Stuart Feinhor (Rep. Polis).

Convene/Agenda Review

Chair Lisa Morzel convened the meeting at 8:37 a.m. She asked if there were any suggested changes to the agenda and there were not.

Chairman's Review of March 14 Executive Committee meeting

Chairman Morzel noted that an Executive Committee meeting was held on March 14, 2012. The purpose was to develop the agenda for this meeting. These meetings are always open to public.

Consent Agenda

David Allen presented one minor editing change to the February Board meeting minutes.

Bob Briggs moved to approve the February Board meeting minutes as amended and the checks. The motion was seconded by Jeannette Hillery. The motion to accept the minutes and checks passed 14-0.

Executive Director's Report

The Stewardship Council's Executive Director, David Abelson, presented an update to the Board. He noted that the Board's Intergovernmental Agreement (IGA) had been signed by all

entities. He next spoke about the approval of DOE's grant to fund the Stewardship Council. For the benefit of new members, David explained how the Board's funding works. The Board receives five-year grants from DOE. During this timeframe, funding is disbursed periodically upon the Board showing cause. Annually, the Board receives roughly \$130,000. Non-federal dollars, in the form of local government contributions, cover certain activities not covered by the DOE grant (such as food for meetings). David next shared that the April quarterly financial report would be distributed to Board members, and that he would be happy to answer any questions.

David next discussed an update on the Energy Employees Occupational Illness Compensation Program Act (EEOICPA). The EEOICPA, passed in Congress in 2000, was created to compensate workers at defense nuclear facilities for illnesses sustained as direct result of working at one of these facilities. David noted that numerous problems have been encountered by former workers in getting their claims approved. The problems include inadequate record keeping, missing records, state vs. federal requirements, and the difficulties of dose reconstruction. Around 2005, there were attempts to limit program funding due to federal budget issues. David reported that, while there have been some claims paid, far too few workers had been successful with their claims. In recent years, workers at Rocky Flats began pursuing a designation of 'Special Cohort status'. With this designation, workers meeting a much more straight-forward set of criteria, such as having worked at certain facilities during certain years, would be presumed to have contracted their illnesses due to work, rather than having to prove their individual exposures. Senator Udall introduced legislation to address this issue, called the Charlie Wolf Act after a Rocky Flats worker who died while working for compensation. All members of the Colorado congressional delegation supported this legislation, with the exception of Rep. Lamborn. At this point, the legislation is basically dead, primarily due to the large costs associated with the claims. On March 1, The National Institute for Occupational Safety and Health (NIOSH) announced it would review the Rocky Flats Special Cohort petition, covering the period from 1972. Roman Kohler noted how disappointing it was that the Charlie Wolf Act was not passed and how few workers have their claims approved. Shirley Garcia commented on how complicated the required forms are, and that workshops are being planned to assist workers with this process.

David next reported about an op-ed published recently in the New York Times, written by a former Arvada resident, Kristin Iversen. The op-ed column was based on a book she is writing that will be out later this year, and links the disaster at the Fukushima nuclear plant with Rocky Flats. David noted that some parts of her article were accurate, while some were extreme mischaracterizations. The Denver Post responded with a rebuttal. David commented that, because of the complexity of these issues, some in the media will always make stories sensational. Also, no matter how much information is released about nuclear sites, many people will never be satisfied.

Rik Getty gave an update on feedback from the Board on potential dates for the annual site tour. He said that Thursdays had the most votes currently for both main tour and backup date. Board members were asked to respond to Rik with their preferences.

Shirley Garcia noted that Kristin Iversen has a book signing scheduled in Denver. Shelley Stanley said that it would be a good idea for Board members to be prepared and available for press queries when the book is released. David Abelson commented that it will be difficult without advance copy of book, but that there are some general talking points he will provide, and perhaps discuss at the next meeting. A major theme will be that there is ongoing local oversight, and that the community has been involved for years. Ann Lockhart said that she was contacted recently by a reporter from Channel 2/Fox News who wanted to interview someone about this book.

Public Comment

There was none.

Second review of bylaws amendments

Due to changes in the Board's IGA regarding membership and voting requirements, the bylaws needed to be amended to align with the IGA. As a unit of local government, the Stewardship Council must review the changes at one meeting and then adopt the changes at a second meeting. The amendments were reviewed at the last Board meeting.

Murph Widdowfield moved to approve the bylaws amendments. The motion was seconded by Joe Cirelli. The motion to accept the minutes and checks passed 14-0.

Briefing on the history of Rocky Flats Stewardship Council

David Abelson provided a brief history of the Stewardship Council. During the cleanup of Rocky Flats, Dan Miller with the Colorado Attorney General's office repeatedly emphasized that a key component of long term oversight needed to be institutional controls. Examples such as Love Canal show how easy it can be for information about environmental dangers to be lost. David said multiple layers of control were developed at Rocky Flats. An Environmental Covenant was created, which is a land use restriction deed on file with Jefferson County. There has also been a commitment to keep the community involved with what is going on. In 2003, the parties involved in Rocky Flats developed the idea for the Stewardship Council and legislation was approved in 2004. Around this time, DOE's Office of Legacy Management was created.

More governments are involved in this group now than there were during cleanup. The Board's primary goal has always been to bring together local issues with national priorities. To do this, the group looks at facts first, and then offers opinions, if needed. Fundamentally, this group is a public forum to keep well-informed about issues. One issue that the Stewardship Council intentionally stays away from is the debate over the Jefferson Parkway. The only facet of this issue that the Board agreed to discuss at Stewardship Council meetings is the question of contamination in the eastern buffer zone where the road is planned to be built. This data can then be taken to other forums, where the Parkway discussions are occurring. David noted that there are two active lawsuits that involve entities represented on the Stewardship Council which is another reason to keep these discussions off the table in this venue.

Lisa Morzel commented that if Stewardship Council did not exist, there would be no public group overseeing the site. This forum is an opportunity for people to be able to bring up issues and discuss them in a fact-based manner. She emphasized the importance of trying to speak as one voice and being clear about a message. She said she hopes that public oversight never ends.

Jeannette Hillery said she was living in New York when Love Canal happened, and has always felt that one of biggest issues going forward at Rocky Flats is the need for multiple layers of control. She said that future generations need to understand exactly what went on at Rocky Flats, and that public education and understanding are extremely important. She added that the Stewardship Council has been a good venue in which to discuss thorny issues how important it was to be good stewards of the site.

Joe Cirelli asked why the Mound and Fernald sites did not establish local stakeholder organizations (LSOs). David Abelson said that at Fernald, local governments were not engaged on site issue, and instead left the issues to a citizen advisory board. At Mound, there was a very powerful mayor who entered the process. The participants were mostly interested in re-development and Mound is now a private site. DOE has very small role left. The communities at these sites were not asked if they wanted form LSO's, but were included in the legislation anyway. Both rejected forming LSOs.

Briefing on the history of Rocky Flats

Scott Surovchak gave an overview of the site that included several historical photos. He said Rocky Flats is situated on a series of mesas created by erosion from the mountains. During the production era, Rocky Flats produced variety of components, not only nuclear. It was fundamentally a state-of-the-art machining shop. Workers used gloveboxes with carefully controlled environments in which to fabricate these components. The site was split into a plutonium side and a uranium side. Plutonium work took place in the 700 area. Uranium, stainless steel, and beryllium were used in the 400 and 800 areas. Administrative buildings were in the 100 area, with support buildings in the 200-300 areas. A security area was built around the Protected Zone in 1981. This consisted of two 12-15 foot fences, motion detectors, and guard towers.

The 903 pad area is where waste drums were stored in the 1960's, and later corroded and leaked. Most of material from Rocky Flats is now in Pit 9 in Idaho. In earlier years, scientists did not recognize the impacts of certain storage practices, and thought soil prevented movement of contaminants.

The Rocky Flats closure project was defined in the 1996 Rocky Flats Cleanup Agreement (RFCA). At the time, the plan was a fairly controversial and unique way to manage nuclear cleanup process. The primary structure was a consultative process with the regulators – the EPA and the Colorado Department of Public Health and Environment (CDPHE). The cleanup took 10 years and \$7 billion. Physical completion occurred in October 2005. The cleanup encompassed 385 acres, and 800 buildings and structures, including what was called the 'most dangerous building in America'. 21 tons of weapons grade material was shipped to other sites and 100

metric tons of plutonium residues were dispositioned. Of 421 potentially contaminated sites, 121 required remediation.

50 picocuries per gram (pCi/g) was set as the standard for the top three feet of soil. However, the majority of site was cleaned to below 7 pCi/g. Scott noted that some plutonium and americium contamination was fixed and left in place in two building foundations, and some process piping was filled with grout and left in place. This was all deeper than six feet below ground. 275,000 cubic meters of radioactive waste was also disposed. Approximately 600,000 property items were dispositioned by transfer, sale, donation or disposal as contaminated waste, all of which was huge logistical challenge. Materials were sent to a number of facilities around the country. 15,000 cubic meters of transuranic waste was shipped to the Waste Isolation Pilot Plant in New Mexico, consisting primarily of personal protective equipment.

Physical completion of cleanup meant that all buildings were removed with the exception of two vehicle inspection sheds. All Individual Hazardous Substance Sites (IHSS's) were dispositioned according to RFCA. Soil removal was completed where needed. Two landfills were closed with engineered covers and monitoring wells. Four groundwater treatment systems were built to remove contaminant loading to surface water, and there is continued evaluation of groundwater and surface water through the RFCA sampling network. Building 881, located 40 feet below grade, was found to be clean. At building 771, which was built into a mesa for bomb protection, workers fixed contamination in place. Hazards at the surface are the most difficult to control and present highest risk to human health and the environment. Drawings are available that show what was left and at what depths. DOE-LM has, and will continue to have, an ongoing presence at the site.

Regulatory completion involved the remedy selected in the CAD/ROD. This established two Operable Units (OUs) at the site. The Central Operable Unit (COU) consists of 1309 acres encompassing all of the areas requiring institutional controls and ongoing maintenance. The Peripheral Operable Unit (POU) was 4,000 acres of essentially uncontaminated former buffer area lands. EPA determined that the POU met unrestricted use/unlimited exposure conditions and delisted it from the National Priorities List (NPL). This means that there are no more requirements for monitoring, access controls, or maintenance. These 4,000 acres were transferred to the U.S. Fish and Wildlife Service (USFWS) and became the Rocky Flats National Wildlife Refuge. DOE has a responsibility for an additional 945 acres of POU land on the west side of the site. Because of mineral rights issues, this land was not suitable for the Refuge.

The remedy for the COU is intended to protect surface water quality based on Colorado Water Quality Control Commission standards for all surface water use classifications. It also serves to protect human health and the environment by controlling potential exposure pathways. Activities include monitoring, maintenance, and evaluation reporting. Institutional controls prohibit groundwater and surface water use, soil disturbance, damage to remedy components, and public access. DOE is also responsible for post-closure care for landfills, groundwater treatment systems, and performing CERCLA five year reviews.

The primary regulatory oversight of the CERCLA remedy is codified through the Rocky Flats Legacy Management Agreement (RFLMA). The Rocky Flats Site Operations Guide is the how-

to operations guide for activities at the site. DOE-LM also maintains community and public interaction, such as the Stewardship Council, public meetings, contact records to document the consultative process, annual and quarterly reports, periodic non-RFLMA reporting and notification, and a public website.

Routine groundwater and surface water monitoring are performed in accordance with RFLMA. There are 97 groundwater wells onsite. At the Original Landfill (OLF), which was built onto a hillside, ongoing issues include hill stability, slumps, seeping, monitoring inclinometers, and maintaining wells. Other actions across the site include erosion controls and monitoring. Site management includes road maintenance and weed control. Ecological activities include revegetation and wetland mitigation, and monitoring and reporting on critical habitats, such as the Preble's Meadow Jumping Mouse. Scott noted that the site has breached seven dams so far. Murph Widdowfield asked how many dams were left and what the purpose was for breaching. Scott said the dams were no longer needed for runoff control and containment of potential accidental contamination. Three terminal dams are left, as well as remnants of the Present Landfill dam. He added that there are new compliance monitoring points on both creeks.

Deb Gardner asked where to find the map showing what left is below grade. Scott said it was in RFLMA and also on website (Figures 3 & 4). Vera Moritz (EPA) mentioned a meeting taking place that afternoon to discuss the Adaptive Management Plan (AMP). She said they have large maps posted at the DOE office if anyone wanted to see them. Shelley Cook asked about the 3-6 foot depth requirement for buried contamination and whether they need to maintain that depth. She also wondered whether soil that came in contact with fixed contamination could then migrate and re-surface. Scott said although they were required to clean to a three-foot depth, when doing the actual cleanup, they kept going until they got as much contaminated soil as possible. They actually found very little contamination as they went deeper into the soil. He said they do watch for erosion, subsidence, or any kind of earth movement. If something is found, they cover it back up. This is part of routine site inspection and maintenance; however they have not seen any significant problems to date. Tim Plass asked if there was any specific plan to historically record the site with photographs. Scott said they did do this and these photos could be found on the website. Tim also asked if there were any real surprises found during closure. Scott said the biggest surprise was when americium from Building 771 infrastructure lines migrated into North Walnut Creek and required a treatment system. He said another revelation was that the contamination found beneath the buildings was not nearly as bad as some expected and was quite insignificant. Joe Cirelli asked what types of mineral rights were found on the POU lands retained by DOE. Scott said it was primarily shallow aggregate, such as sand, gravel, and clay. David Allen requested that Scott post his presentation and notify the Board when it was up. Scott said he would.

Adaptive Management Plan (AMP) monitoring update

Rick DiSalvo, Assistant Project Manager and Environmental Compliance Lead, provided an update on Adaptive Management Plan monitoring. The AMP was created as part of the Surface Water Configuration Environmental Assessment (EA). The EA evaluated the impact of removing these water control structures. The site proposed removing the structures, such as dams, because there was significantly less water onsite to manage after closure than there was

prior to closure. Previously a huge amount of water was brought in and used onsite. The EA evaluated the proposed action to breach the remaining retention pond dams (A-3 and PLF 2012, A-4, B-5, C-2). The EA resulted in a Finding of No Significant Impact (FONSI). The site plans to operate the dams in a flow-through configuration until they are breached.

The AMP is a monitoring and data evaluation program to assist in deciding to implement the proposed action for the terminal ponds in 2018-2020 timeframe or delay in order to gather additional data. All AMP activities are in addition to the mitigating actions included in EA, and was created to address the concerns of downstream communities. Mitigating actions in the EA include:

- RFLMA monitoring and reporting;
- protecting wildlife, birds and threatened and endangered species;
- erosion controls and revegetation plans;
- wetlands replacement and enhancement; and
- protective actions during construction (drain water to lower levels to increase potential habitat prior to breaching; dust control during construction; and complying with nationwide dredge and fill permit and construction stormwater permit).

The AMP was developed through a cooperative public process and involves regular public meetings with the community. These activities were incorporated as requirements of the EA.

Deb Gardner asked if the site monitors sediments. Rick said this was not in the AMP. He said that sediments in the ponds were characterized during cleanup and closure, and any needed cleanup was done at that time. Rick presented a map showing the monitoring points for RFLMA, non-RFLMA and AMP (Points of Compliance, Points of Evaluation, Areas of Concern, etc). The site has concluded that removal of the dams would not negatively affect water quality leaving the site; however the AMP process is delving into more detail about this question. The AMP is posted on the Rocky Flats website.

The AMP utilizes a dynamic, cooperative process to implement and revise if needed. It will be reviewed every two years. Routine AMP reporting includes data exchange and email notifications for sample collection and results. It also calls for a 14-day turnaround time for Point of Compliance (POC) samples. All results are posted to the GEMS system. There are quarterly summary reports, as well as annual status reports. The initial annual report was posted to the Rocky Flats website in February, 2012, and a meeting was scheduled later that day to discuss the report.

Per the AMP, monitoring results are evaluated in relation to the objective. These types of monitoring and their objectives include the following:

- Pre-discharge – water quality standards at POC’s met
- Targeted groundwater (area of concern wells) – no indication plumes discharging to surface water
- Flow-through operations – water quality comparable to batch release results.
- Storm event – measurable variability; no increase in Pu, Am, TSS; uranium both increases and decreases (very soluble in water)

- Continuous flow paced sampling- significant variability in uranium, but well below standard at locations nearest site boundary; all other locations below EPA's maximum concentration limit for drinking water
- Grab sampling North and South Walnut Creeks
 - Uranium – noticeable spatial variation in average concentration upstream to downstream
 - Nitrate (N) – spatial variation upstream, natural biodegradation apparent downstream; SPPTS had small load impact on North Walnut Creek

David Allen asked about the status of reportable americium concentrations at GS10. Rick said that these results had triggered consultation with the regulators, and that they were still in process of evaluating the situation. The levels have remained a reportable condition. However, although plutonium decays into americium, the samples are not yet showing elevated plutonium. He said that the latest sample was below the standard, making 5-6 samples above the standard and 2-3 below since the initial exceedance.

Public comment

None

Updates/Big Picture Review

June 4, 2012

Potential Business Items

- Receive RFSC 2011 Audit

Potential Briefing Items

- Solar ponds performance (move to September or November)
- NRD update
- DOE quarterly update
- Continue overview of cleanup
- Actinide migration review

September 10, 2012 (second Monday)

Potential Business Items

- Initial review of 2013 budget
- Initial review of 2013 work plan

Potential Briefing Items

- DOE Quarterly update
- Regulatory overview
- Original landfill performance
- Update on CERCLA 5-year review

Issues to watch:

Americium and uranium levels upstream of pond B-3
Revegetation efforts (especially if drought-like conditions continue)
Adaptive Management Plan water quality testing results

Member Updates

Ann Lockhart announced that the Rocky Flats Cold War Museum Board voted to delay the Museum opening until 2013. She said there were still many things they needed to take care of, including fundraising. She added that the Stewardship Council was welcome to tour the building at any time.

The meeting was adjourned at 11:35 a.m.

Respectfully submitted by Erin Rogers.