

Diana, Sherri A. (CDC/NIOSH/EID) (CTR)

From: Terrie Barrie <
Sent: Thursday, July 18, 2013 10:09PM
To: NIOSH Docket Office (CDC)
Subject: Submission to NIOSH docket
Attachments: Rocky Flats ID oral presentation.docx; Saunders ID presentation.docx; ROCKY FLATS SEC PETITION 00192 ID presentation.pptx

To Whom It May Concern:

Kindly post the attached three documents to the Rocky Flats page
<http://www.cdc.gov/niosh/ocas/rocky.html#sec>

This information was provided during the Advisory Board on Radiation and Workers Health meeting on July 16, 2013.

If you have any question, please do not hesitate to contact me.

Sincerely,
Terrie Barrie
Rocky Flats SEC 00192 Co-petitioner
Founding Member of the Alliance of Nuclear Worker Advocacy Groups



Why will DCAS only believe the workers or other experts that fit into their pre-determined position? We have tons of people telling DCAS that records are missing, that they received a zero for a badge, that instruments were recalibrated to show a background reading that was higher than what the worker's badge read? Could the reason for all these zero readings be that the lab was remiss in following scientific protocols? No one has believed these workers. We supplied this EPA interview to bolster the workers' testimony. It came from someone who had direct knowledge of the lab's practices and worked in the lab for a number of years. It is unforgivable that NIOSH would dismiss this important information.

As noted in NIOSH's white paper, DOE was so concerned about the raid that they sent their own investigative teams to take a look at the problems at Rocky. I don't think it would be a stretch of the imagination that the issues mentioned in the DNFSB memos were the result of what the DOE Tiger Team investigations found.

Yes, the raid happened because of environmental crimes, but the Tiger Teams look at the whole plant. Does NIOSH have all four assessment team reports or just the environmental one? If they do have all four reports, did they review all of them to determine whether the Tiger Teams found similar problems with the personal bioassay lab procedures? If so, what did they find? If they have the reports but didn't read them, why didn't they? If all four reports are not available to DCAS, why aren't they? Who has them? If DCAS cannot obtain all four reports, how can they emphatically assert that there were no problems with the worker bioassay program? Will we ever learn the whole truth?

While my petition is only a year old, these issues regarding the Rocky Flats site have been around for more than 8 years, when the first petition was filed. When is the Board going to say "Enough is enough" to DCAS? You know, when DCAS releases the other white papers that were due months ago, me, Terrie, the Rocky Flats workers and other supporters will be crawling through every document we can lay our hands on to show that NIOSH is wrong. They've been wrong for eight years now. And it's because they refuse to accept that the paperwork they are using is corrupted.

I, too, want to thank all the Rocky Flats workers and other advocates who have helped me with this petition. There's a lot of information and explanations that Terrie and I couldn't relay to you today because of the ten minute time limit. I hope in October when the Board comes to Denver, we'll have as much time as we need to explain our position.

We will ask that the full document we prepared and the power point be posted to the DCAS website. Thank you for your time and we'll be happy to answer any questions.

Good Afternoon,

Thank you for the opportunity to explain the petitioners' opinion on DCAS's white papers on data falsification and/or data invalidation in Building 123 and the tritium follow-up. I also want to express my heartfelt gratitude to the Rocky Flats workers and the advocates who have helped with this petition and today's presentation. I cannot express enough how much I appreciate your assistance.

I will first address the Falsification white paper.

Page 2, is an "allegation" that the fume hoods were inadequate. DCAS opines that there "could have been a chemical hazard issue." I don't know why DCAS bothered addressing this issue. The interviewee affirmed that this was a chemical issue in his interview – "He and others reportedly complained to the supervisor...about fumes from nitric acid, hydrochloric acid and ammonium hydroxide." The interviewee did not mention that radioactive materials were present. The interviewee's concern was the chemical exposure. In fact, the statement in the interview is, "[redacted] recalled taping a piece of pH paper to the outside of the hood and watching it turn bright red almost immediately, *from the acid.*" Why did NIOSH bother? A fluff piece if I ever saw one.

The interviewee told the EPA and FBI that

"Nasal wipes, fecal, urine and tissue samples were frequently allowed to sit in the lab for a week or two prior to analysis."

NIOSH's response to that assertion is

"From a radiological perspective, there is no scientific basis for concluding that sample counting performed weeks after collection would compromise the results for the target radionuclides. The half-lives of these target radionuclides are too long for the intervening time period to impact results."

Really? Yes, NIOSH couldn't find bioassay procedures for Rocky Flats. I find that very odd, especially since their site expert and original author of the Rocky Flats Site Profile was the manager of the Health Physics Lab. Couldn't they have asked him for a copy? Fortunately, the LANL petitioner was generous enough to share a section of his SEC petition with me, pages 56 and 57, which addresses this issue.

"The NCRP commented on collection of in vitro samples:
All biological samples are subject to deterioration by bacteriological action that may interfere with subsequent analysis. Prompt analysis following collection is the preferred method of avoiding these complications. When samples must be kept longer than a day, they should be refrigerated, acidified to minimize precipitation, or have a preservative added to prevent bacterial growth.
NCRP Report No. 87 page 31."

Shouldn't Health Physicists know that? And what about tritium bioassays? Tritium has a very short half-life and depending on which paper you read, it is between 12 days and 12 years. If a sample that was slated to check for tritium exposure sat on the shelf for a week or two, would the bioassay results be accurate? Would there be any tritium left to test?

The former Mound worker interviewed by NIOSH offered his opinion that "it is a valid assumption that Mound procedures would be representative of other DOE sites." Did NIOSH investigate the validity of this opinion, or just accept it because it fit nicely with their position?

I managed to easily find a 1985 document titled, "Current Internal-Dosimetry Practices at U.S. Department of Energy Facilities." <http://www.osti.gov/bridge/servlets/purl/5831506/5831506.pdf>. The summary states,

"The information gathered from the questionnaire responses illustrates the diversity of internal-dosimetry practices at DOE facilities...The differences include different frequencies in the use of quality control samples, different minimum detection levels, different methods of recording radionuclides, different amounts of data recorded in the permanent record, and apparent differences in modeling the metabolism of radionuclides within the body."

So, it cannot be assumed at all that Mound's dosimetry procedures are representative of other DOE sites.

Why would DCAS seek out a former Rocky Flats worker who started employment after the FBI raid for his opinion of the bioassay program? What about the workers who made public comments and who submitted sworn affidavits to the Board? What about the Focus Groups and classified interviewees? Was there no one from these groups who could corroborate the problems with the lab identified in the EPA interview?

Two documents were provided to NIOSH with the SEC petition 00192. Both show white out being applied. Concrete proof, to me, that records were altered or falsified. Why will DCAS only believe the workers or other experts that fit into their pre-determined position? We have tons of people telling DCAS that records are missing, that they received a zero for a badge reading could the reason for all these zero reading be that the lab was remiss in following scientific protocols? Yet these workers are not believed. I supplied this EPA interview to bolster the workers' testimony. It came from someone who had direct knowledge of the lab's practices and worked in the lab for an extended length of time. It is unbelievable that NIOSH would scoff at this information.

I am thankful that NIOSH will check with Legal on whether it will be possible to petition the court to unseal the records seized during the FBI raid. I hope Legal agrees. ANWAG will be happy to submit a brief supporting this proposed motion.

But I still don't understand why DCAS is so insistent that there were no problems at Rocky Flats both with regards to the bioassay program and with worker protection.

Besides the many workers who have come forward with their sworn testimony attesting to the issues, I have discovered a few other documents which may confirm or at least support their statements that all was not well at Rocky Flats.

The following documents identify some areas that were necessary for Rocky Flats management to correct before the restart of the production facilities. Rocky Flats needed to ensure that: "Examination

of records of tests and calibration of safety systems and other instruments monitoring Limiting Conditions of Operations or that satisfy Operating Safety Requirements."

Federal Register Vol.55, No. 91 Thursday, May 10, 1990

http://www.dnfsb.gov/sites/default/files/Board%20Activities/Recommendations/rec_1990-4_185.pdf

- *"H.2 The condition and operability of vital safety systems, including safety related process systems and safety-related utility systems, are confirmed.*

H.2.1 Instruments, indicators, and alarms that monitor limiting conditions of operation or that satisfy operational safety requirements have been demonstrated to be capable of performing their intended functions in the required manner."

http://www.dnfsb.gov/sites/default/files/Board%20Activities/Recommendations/Implementation%20Plans/ip_rec-id_185.pdf DNFSB memo, 11/29/90, page 14

The next two documents show that some of the same issues still existed 3 and 4 years later:

Defense Nuclear Facilities Safety Board (DNFSB) memo, dated 12/1/93

<http://www.hss.doe.gov/deprep/1993-2/tr93d01b.pdf>

Page 1

b The staff noted that a potential existed for workers to be exposed to radiation without being monitored in accordance with the Radiological Control Manual (RCM) and DOE Order 5480.11. In discussions with Building 771 personnel, it was noted that the Thermoluminescent Dosimeter (TLD) badge storage rack was being evaluated to determine the amount of radiation the dosimeters were exposed to while hanging on the rack. This evaluation was being accomplished as a result of RFP personnel noting that two TLDs that hung on the rack for six months had received approximately 300 mrem. The DNFSB staff questioned whether any unmonitored workers had spent a significant amount of the workday in the area. RFP personnel noted that a guard station was adjacent to the area, and that the guards were not required to wear dosimeters on a routine basis. The radiation level in the guard area was not known at the time of the review, and was to be determined. If the radiation level in the guard's post is similar to that at the TLD storage board, exposure of guards to ionizing radiation may exceed the 100 mrem per year limit for those who are not monitored.

And on page 8 of the same DNFSB memo:

Workplace Air Monitoring - RFP personnel described the Work Place Air Monitoring Program at the RFP as an integrated program consisting of seven elements ranging from Selected Alpha Air Monitors (SAAM) to bioassay. Air monitoring in the workplace at RFP is not in compliance with the requirements of the RCM. Specifically, the RCM Article 555,

Airborne Radioactivity Monitoring, paragraph 5 requires that Continuous Air Monitors should be capable of measuring one (1) Derived Air Concentration (DAC) when averaged over eight (8) hours (8 DAC-hours) under laboratory conditions. SAAMS used at the RFP were stated by RFP personnel to have a sensitivity of approximately 42 DAC-hours. Improvements are planned and are expected to increase the SAAM sensitivity to approximately 8.5 DAC-hours. In support of this improvement effort, a pilot program has been completed in Building 707 Module J and Building 371. In addition to the sensitivity problem, SAAMS are no longer in production and the RFP relies on cannibalizing or replacing units from approximately 150 spare units held at the Plant. A Capital Project Air Monitoring Improvement Program is in place to support the air monitoring requirements for the future Decontamination and Decommissioning (D&D) work at the RFP. DNFSB staff review of the RFP RCM Implementation Plan identified that EG&G has not included the upgrade to meet the requirement in their Implementation Plan, but has taken an exception to RCM Article 555.

And, again, in an August 24, 1994 DNFSB memo, captured by NIOSH on 11/18/12

http://eecap.org/PDF_Files/Colorado/Rocky_Flats/00192_petition-review.pdf

“Equipment used for monitoring air for radioactivity does not meet the Manual’s sensitivity requirements, but short and long term improvement efforts are in progress.”

So here we have four documents from the DNFSB which show there were problems with radiological protection.

As noted in NIOSH’s white paper, DOE was so concerned they sent their own investigative teams to take a look at the problems after the FBI/EPA raid. I would hazard a guess that the concerns mentioned in the DNFSB memos documents were the result of the DOE Tiger Team investigation and subsequent reports.

Yes, the raid was initiated because of environmental crimes, but the Tiger Teams look at the whole plant. The white paper says the SRDB contains, “A report from a DOE Environmental Special Assessment Team (*one of four assessment teams that also included Management and Operations, Safety, and Legal Matters*) (SRDB 21359).” Does NIOSH have all four assessment team reports or just the environmental one? If they do have all four reports, did they review them to determine whether the Tiger Teams found similar problems with the personal bioassay lab procedures? If all four reports are not available to DCAS, why not? They wouldn’t be part of the documents sealed by the court, because those reports occurred after the raid. But if DCAS cannot obtain all three reports, how can they emphatically assert that there were no problems with the worker bioassay laboratory?

It is interesting to note that even the GAO identified worker protection issues by reviewing DOE’s Technical Safety Appraisals (TSA). And this was prior to the FBI raid. For example, the October 1988 report titled, “Summary of Major Problems at DOE’s Rocky Flats Plant” states,

“The TSAs found that procedures for calibrating radiation monitoring instruments were weak and poorly documented. The accuracy of such instruments is important to ensure that workers and the public are not exposed to unnecessary levels of radiation. Problems included using

different calibration techniques in different buildings and not testing the instruments with appropriate radiation sources.

On the next page,

“Air monitoring radiation at the plant needs to be upgraded. The TSAs identified a number of problems with the plant’s air monitors, the need to study air flows, insufficient ventilation, and improper use or placement of air monitors.”

<http://www.gao.gov/assets/80/77207.pdf>

From the Government Accountability Office report a year later, page 15

<http://www.gao.gov/assets/220/211753.pdf>

In January 1989, DOE issued a comprehensive site-wide TSA appraisal of Rocky Flats. Among other things, the appraisal evaluated the effectiveness and timeliness of actions taken in response to previous TSAs. Overall, the appraisal found some improvements in the safety programs but indicated that more still needs to be done. Of the 230 recommendations and/or concerns in previous TSAs1, 39 were closed because corrective action had been fully implemented. Further, the TSAs recognized that increased emphasis on ES&H has been initiated by Rockwell. However, the TSA also identified 32 new concerns including (1) the lack of adequate training programs for fissile materials handlers, (2) noncompliance with electrical safety standards and/or codes, and (3) the lack of adequate measurements and documentation on extremity doses for certain workers.

For over 8 years the Rocky Flats workers have attested to these practices. Is this enough to prove they were telling the truth about the work place conditions? Is this enough to convince the Board that the records NIOSH is using to reconstruct dose are to be questioned? Yes, I understand that these documents do not directly affirm that the personal bioassay testing was flawed. I haven't read each DNFSB report nor have I read every GAO report, nor can I gain access to the three volumes of the Tiger Team report not related to the environmental concerns. But let's be logical here. If the Tiger Team presumably found fault with the radiological protection; if the DNFSB consistently called upon Rocky Flats to improve the protection and monitoring; if GAO identified problems with protecting the workers of the Rocky Flats plant wouldn't it stand to reason that the lab in Building 123 was also deficient in their processing of worker bioassay specimens, as asserted by the Interviewee?

Let's move on to the tritium follow up white paper.

My understanding about tritium is like the element itself. Information seeps into my brain and just as quickly it seeps out. Some knowledge remains though, so a good portion of this part of the presentation will be observations and/or questions for the Board, NIOSH and SC&A to consider.

This is a slide from the petitioners' presentation last September.

Notes to Jim:

They did not have any information of tritium stripping on building 444 except that it began in 1987, so I am not sure where we can get more information; I have found no references to building 664 anywhere - any ideas? I have not added it to the table.

http://www.eecap.org/PDF_Files/Colorado/Rocky_Flats/Miscellaneous/2006,_Oct._4_Rocky_Flats_ER_email_between_Jessen,_Masterson.pdf

As far as I can ascertain, DCAS did not address this in their white paper. Apparently there is documentation that tritium stripping was performed on Building 444 in 1987. Did DCAS research this further? Did NIOSH choose the 1974 incident because they could not find any more information on the tritium stripping on 444? Did they choose the 1974 incident because they reviewed the issue with Building 444 and found that to be less exposure than the 1974 incident? Did this DCAS email mean "tritium stripping in building 444 except that it began in 1987." More unanswered questions that will affect the SEC petition and one that DCAS needs to respond to.

You should also note on this slide the document seized during the raid refers to a tritium release from Building 776 in April of 1989. Was DCAS aware of this release? If so, did they determine the release was less than the 1974 or even the 1973 exposure.

During last week's work group teleconference, Dr. Arjun Mahkijani of SC&A asked NIOSH if metal tritides was present at Rocky Flats. NIOSH replied that they did not find any evidence of that. My understanding is that a tritide, after reading the 2008 DOE Handbook "Tritium Handling and Safe Storage" is formed when tritium gas or water forms a bond with a metal. It is my understanding that, where there is substantial tritiated gas, it can form tritiated compounds with oils, solvents and even components of hoods and gloveboxes. From the Work Group discussion, I gathered that at the very minimum the bubblers or the hoods would become tritides. And what I gathered from talking with Rocky Flats workers, those tritides would release contaminants on a continuous basis in the form of "out gassing". The petitioner and I would like a very simple tutorial from DCAS and SC&A on what a tritide is. This will help us with future discussions.

Many of the workers interviewed during the focus group and other interviews mentioned the fact that tritium alarms went off frequently. I know that some of those accounts occurred after 1974, including one from the petitioner. Did DCAS find any information on tritium alarm incidences and if so, did they rule out that those alarms were caused by releases that were less than the 1974 exposure? And Special Tritium Compounds – how does that weigh in when reconstructing tritium dose?

As I mentioned earlier, there are many Rocky Flats workers who work with the petition and I to educate us in the areas we are not familiar with. One such worker informed me that tritides were indeed onsite. Experiments were done in Building 559, glovebox 1 by _____ using tritides.

And, of course, considering the documents I located regarding the monitoring insufficiencies at Rocky Flats, there are serious doubts in my mind that the records NIOSH is using to reconstruct dose are true and accurate. In addition, I was provided with an April 25, 1996 memo concerning the destruction of records.

From: [REDACTED] Rocky Flats Field Office Manager

To: All Rocky Flats Environmental Technology Site Employees

Subject: Moratorium on the Destruction of Records

"Effective immediately, I am issuing a moratorium on the destruction of all records at the Rocky Flats Environmental Technology Site, including the records located at the Denver Federal Record Center. Until further notice, no destruction will take place of any records unless approved by the RFFO Chief Counsel...Virtually all recorded information in the custody of the Government (including information held by contractors which is considered by contract to be Government information) regardless of its media is considered "Government records."

DCAS still has three white papers to produce, Thorium strikes, other thorium work and neptunium. I'd like to offer a few observations on the thorium issue. Concerning the thorium strikes, after the thorium was removed from the U-233 what happened to it? Was it processed and machined at Rocky? Was it then shipped offsite? If so, to which facility? What was the process? Which building or buildings was involved. Was it treated as waste and burned or buried. I'm hoping that the paper on "Other thorium work" will explain that process.

I am a co-petitioner for the Dow Madison site, and I am grateful to the RF Chair for ensuring that DCAS will address the anonymous tip I received that the magnesium thorium alloy plates were used to shield the semis. This process took place in Building 440, MOD Center. While there is a FOIA out for this information, it might be quicker for DCAS and SC&A to obtain the information. I thank Mark Griffon, Chair of the RF Work Group for insisting that this issue be addressed in the DCAS white paper on "Other Thorium Work".

I hope I have enough time to mention a few last concerns brought to me by interested parties regarding the dose reconstruction for Rocky Flats. I'm sure they would appreciate a written response to these concerns.

10CFR 20.1703 states that radiation exposure to ANY ORGAN except for the lens of the eye must not exceed 50 rems (0.5 sv) per year. The very nature of the glove box work at RF insured that the head of any employee who worked in glove boxes would receive the highest dose of any part of the body.

Until sometime in the 1990's radiation exposure to the head was never tracked at Rocky Flats, so they had no idea if they were in compliance for the brain (an organ of the body), or the lens of the eye.

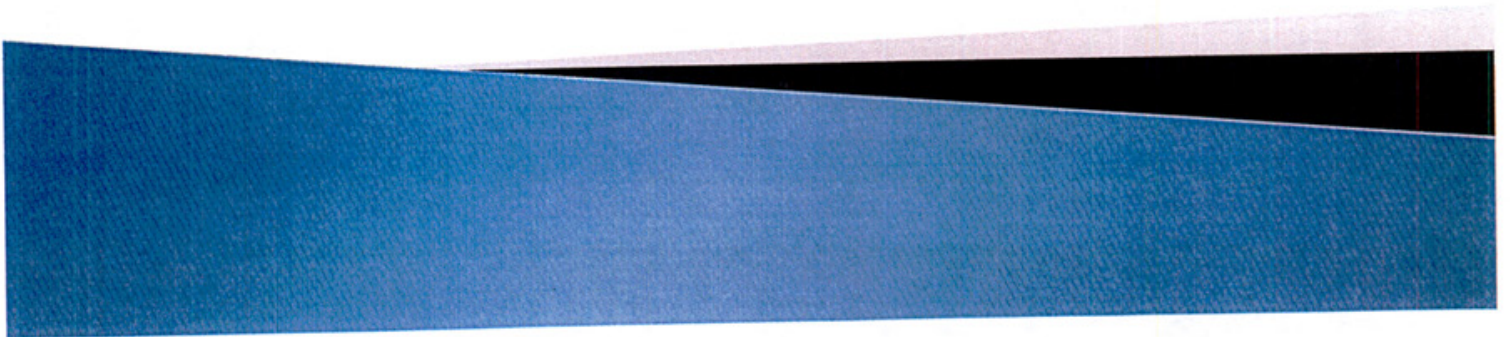
I understand that three highly qualified professionals have, independent of each other, have raised issues concerning IREP. You will hear from one tonight during the public comment period. I respectfully request that the Board and DCAS address these concerns.

I'd like to leave you with one thought before I read the petitioner's short comment. While this petition is only 2 years old, these Rocky Flats issues have been around for 8 years. I have been involved in the sick worker issues for 18 years. I want to "retire" in two years. I like to see this SEC petition decided in favor of the Rocky Flats claimants before then.



ROCKY FLATS SEC PETITION 00192

Petitioners' Response to DCAS White Papers
on Falsification and Tritium Follow Up



Effect of delay on testing bioassay samples

EPA Interviewee

“Nasal wipes, fecal, urine and tissue samples were frequently allowed to sit in the lab for a week or two prior to analysis.”

NIOSH's Response

“From a radiological perspective, there is no scientific basis for concluding that sample counting performed weeks after collection would compromise the results for the target radionuclides. The half-lives of these target radionuclides are too long for the intervening time period to impact results.”

NCRP Report No. 87 page 31

“All biological samples are subject to deterioration by bacteriological action that may interfere with subsequent analysis. Prompt analysis following collection is the preferred method of avoiding these complications. When samples must be kept longer than a day, they should be refrigerated, acidified to minimize precipitation, or have a preservative added to prevent bacterial growth”



DOE Sites had different bioassay procedures

1985 document titled, "Current Internal-Dosimetry Practices at U.S. Department of Energy Facilities."

<http://www.osti.gov/bridge/servlets/purl/5831506/5831506.pdf>

- ▶ "The information gathered from the questionnaire responses illustrates the diversity of internal-dosimetry practices at DOE facilities...The differences include different frequencies in the use of quality control samples, different minimum detection levels, different methods of recording radionuclides, different amounts of data recorded in the permanent record, and apparent differences in modeling the metabolism of radionuclides within the body."



DNFSB CONCERNS WITH ROCKY FLATS -1990

“Examination of records of tests and calibration of safety systems and other instruments monitoring Limiting Conditions of Operations or that satisfy Operating Safety Requirements.”

- ▶ Federal Register Vol.55, No. 91 Thursday, May 10, 1990
http://www.dnfsb.gov/sites/default/files/Board%20Activities/Recommendations/rec_1990-4_185.pdf

“H.2 The condition and operability of vital safety systems, including safety related process systems and safety-related utility systems, are confirmed.
H.2.1 Instruments, indicators, and alarms that monitor limiting conditions of operation or that satisfy operational safety requirements have been demonstrated to be capable of performing their intended functions in the required manner.”

- ▶ http://www.dnfsb.gov/sites/default/files/Board%20Activities/Recommendations/Implementation%20Plans/ip_rec-id_185.pdf DNFSB memo, 11/29/90, page 14



DNFSB CONCERNS WITH ROCKY FLATS – 1993

Defense Nuclear Facilities Safety Board (DNFSB) memo, dated 12/1/93, Page 1
<http://www.hss.doe.gov/deprep/1993-2/tr93d01b.pdf>

"The staff noted that a potential existed for workers to be exposed to radiation without being monitored in accordance with the Radiological Control Manual (RCM) and DOE Order Thermoluminescent Dosimeter (TLD) badge storage rack was being evaluated to determine the amount of radiation the dosimeters were exposed to while hanging on the rack. This evaluation was being accomplished as a result of RFP personnel noting that two TLDs that hung on the rack for six months had received approximately 300 mrem. The DNFSB staff questioned whether any unmonitored workers had spent a significant amount of the workday in the area. RFP personnel noted that a guard station was adjacent to the area, and that the guards were not required to wear dosimeters on a routine basis. The radiation level in the guard area was not known at the time of the review, and was to be determined. If the radiation level in the guard's post is similar to that at the TLD storage board, exposure of guards to ionizing radiation may exceed the 100 mrem per year limit for those who are not monitored."

And on page 8 of the same DNFSB memo:

"Workplace Air Monitoring – RFP personnel described the Work Place Air Monitoring Program at the RFP as an integrated program consisting of seven elements ranging from Selected Alpha Air Monitors (SAAM) to bioassay. Air monitoring in the workplace at RFP is not in compliance with the requirements of the RCM."



DNFSB CONCERS WITH ROCKY FLATS – 1994

“Equipment used for monitoring air for radioactivity does not meet the Manual’s sensitivity requirements, but short and long term improvement efforts are in progress.”


http://eecap.org/PDF_Files/Colorado/Rocky_Flats/00192_petition-review.pdf



1988 GAO “SUMMARY OF MAJOR PROBLEMS AT DOE’S ROCKY FLATS”

- ▶ “The TSAs found that procedures for calibrating radiation monitoring instruments were weak and poorly documented. The accuracy of such instruments is important to ensure that workers and the public are not exposed to unnecessary levels of radiation. Problems included using different calibration techniques in different buildings and not testing the instruments with appropriate radiation sources.”
- ▶ “Air monitoring radiation at the plant needs to be upgraded. The TSAs identified a number of problems with the plant’s air monitors, the need to study air flows, insufficient ventilation, and improper use or placement of air monitors.”

<http://www.gao.gov/assets/80/77207.pdf>



GAO 1989 REPORT ON ROCKY FLATS

- ▶ In January 1989, DOE issued a comprehensive site-wide TSA appraisal of Rocky Flats. Among other things, the appraisal evaluated the effectiveness and timeliness of actions taken in response to previous TSAs. Overall, the appraisal found some improvements in the safety programs but indicated that more still needs to be done. Of the 230 recommendations and/or concerns in previous TSAs¹, 39 were closed because corrective action had been fully implemented. Further, the TSAs recognized that increased emphasis on ES&H has been initiated by Rockwell. However, the TSA also identified 32 new concerns including (1) the lack of adequate training programs for fissile materials handlers, (2) noncompliance with electrical safety standards and/or codes, and (3) the lack of adequate measurements and documentation on extremity doses for certain workers.

<http://www.gao.gov/assets/220/211753.pdf>



Tritium stripping Bldg. 444 in 1987

From: lopez, Theresa · · MFG [mailto:Theresa.Lopez@mfgenv.com]

Sent: Tuesday, March 21, 2006 2:26 PM

To: rmeyer Jim Langstedi Little, Craig -- MFG

Subject: New table 8-2

Importance: High

I have significantly revised table 8-2 in response to Jim's concerns and have found a new source of info on the internet

that may be a better source for Karin to use if she would like to expand this table. From www.rfets.gov, choose history

and go to the HAER site. They have pictures of the buidings and a good history (click on "building history" under the

building number). At this point, I think everyone has sent in comments so here is the new table, until you review it again!

Theresa «Table 8-2 2006Mar21 update TKL.doc»

Notes to Jim:

They did not have any information of tritium stripping on building 444 except that it began in 1987, so I am not sure where we can get more information; I have found no references to building 664 anywhere - any ideas? I have nol added it to the table.

- http://www.eecap.org/PDF_Files/Colorado/Rocky_Flats/Miscellaneous/2006,_Oct._4_Rocky_Flats_ER_e_mail_between_Jessen,_Masterson.pdf

TRITIUM RELEASE 4/1989

FD-507 (Rev. 3-29-84)

UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
Receipt for Property Received/Returned/Released/Seized

Page 4 of 11

On (date) 6/11/89

Item(s) listed below were:
 Received From
 Returned To
 Released To
 Seized

(Name) Bill G. Smith
(Street Address) 1051 N. [REDACTED] [REDACTED]
(City) _____

Description of Item(s):



1 DRAFT ROCKY FLATS AND ENVIRONMENT DRAFT FROM DESK TOP
1 THINGS TO DO DRAFT PAGE
1 DOCUMENT H-3 (TRITIUM) RELEASE FROM 776 during April
2 ps memo titled General Staff
1 DOCUMENT CHROMIC ACID INCIDENT
1 page doc. re Removal of liquid tritium from 3106 317
1 DOCUMENT TOTAL HEAVY METAL AND CHROMIUM SAMPLES
1 DOCUMENT UNKNOWN CHROMIUM MATERIALS JANS
1 CHROMIUM ACID INCIDENT DOCUMENT
1 DOCUMENT REPORT OF INVESTIGATION OF CHROMIC ACID INCIDENT
1 DOCUMENT TABLE OF CONTENTS OF CHROMIUM ACID
6 DOCUMENTS RE DRAFT COPY CHROMIUM ACID + SOME CLEANING
VARIOUS CHROMIUM ACID RELATED CONTINGENCY ACTION MATR.
1 DOCUMENT CHROMIUM ACID INCIDENT

Received by:

[Signature]
(Signature)

Received from

(Signature)

1996 - STOP RECORD DESTRUCTION

April 25, 1996 Memo from Mark N. Silverman, Rocky Flats Field Office Manager
To All Rocky Flats Environmental Technology Site Employees
Subject: Moratorium on the Destruction of Records

"Effective Immediately, I am issuing a moratorium on the destruction of all records at the Rocky Flats Environmental Technology Site, including the records located at the Denver Federal Record Center. Until further notice, no destruction will take place of any records unless approved by the RFFO Chief Counsel...Virtually all recorded information in the custody of the Government (including information held by contractors which is considered by contract to be Government information) regardless of its media is considered "Government records."

