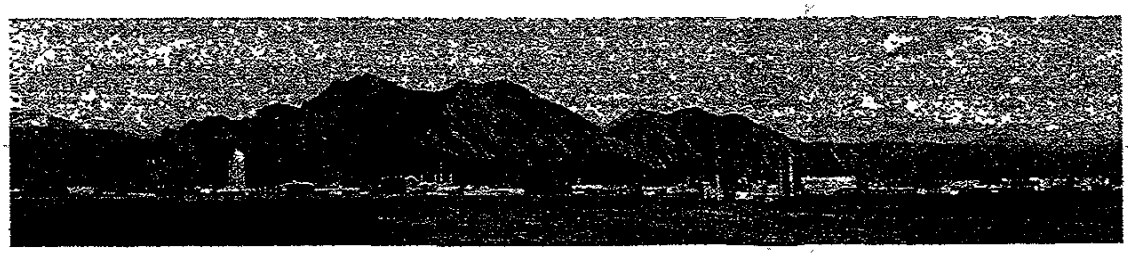


ROCKY FLATS UNITED STEELWORKERS OF AMERICA, LOCAL 8031

SEC 00030

ADDITIONAL INFORMATION, AFFIDAVITS, AND CLARIFICATIONS

SUBMITTED TO:

SPECIAL EXPOSURE COHORT PETITION
OFFICE OF COMPENSATION ANALYSIS AND SUPPORT
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

SUBMITTED BY:

UNITED STEELWORKERS OF AMERICA, LOCAL 8031
ON BEHALF OF OUR DEDICATED MEMBERSHIP

Anthony DeMaiori, President
United Steelworkers of America, Local 8031
4510 Indiana Street
Golden, CO 80403
May 23, 2005

SEC 00030
Office of Compensation Analysis and Support
NIOSH MS-C-47
4676 Columbia Parkway
Cincinnati, OH 45226

RE: SEC 00030 RESPONSE TO APRIL 27, 2005, LETTER – ADDITIONAL INFORMATION, AFFIDAVITS, AND CLARIFICATIONS AS REQUESTED

Dear Office of Compensation Analysis and Support – Larry Elliott, Director,

The United Steelworkers of America (USWA), Local 8031, in good faith submit the accompanying additional information, affidavits and clarifications to our Rocky Flats Special Exposure Cohort Petition, Form B, SEC 00030. The information provided includes specific responses to Letter Items 4, 5, and 7, which pertain to Tabs E.5 and F.2 of our original submittal.

This information is submitted in advance of the deadline of 30 days from our receipt of the April 27, 2005, letter as required. The information and our petition is in full accordance with 42 CFR Part 83, Procedures for Designating Classes of Employees as Members of the Special Exposure Cohort under Energy Employees Occupational Illness Compensation Program Act of 2000, Final Rule. This additional information is submitted on behalf of the dedicated members of USWA, Local 8031, through our right of representation.

We greatly appreciate the opportunity to petition for Special Exposure Cohort on behalf of our members and will be extremely appreciative of your timely designation of our Rocky Flats worker class for Special Exposure Cohort particularly in light of our rapidly approaching closure. Please let us know as quickly as possible if any additional information is required. I can be reached at 303-278-4557 or 303-907-2185. Our site closure is growing very near and anything that can be done to expedite the processing of our petition would be greatly appreciated.

Respectfully,

Anthony W. DeMaiori
President, USWA, Local 8031

2005 MAY 24 AM 11 53

SEC 00030

Table of Contents

Item 4. Clarification – April 27, 2005 Letter– *"You agreed that additional information will be provided in the form of affidavits. As discussed you have 30 days upon receipt of this letter documenting the phone call to submit signed affidavits."*

Tab E.5 *Unmonitored, Unrecorded (or Inadequately) Exposures*

The following signed and notarized affidavits are provided in support of Section E, Item E.5 as requested.

- ire signed and notarized affidavit.
- ire signed and notarized affidavit.
- Oct. 16, 2000 worker exposure incident signed and notarized affidavit.
- unmonitored exposures signed and notarized affidavit.
- naccurate exposure records signed and notarized affidavit.
- High Fired Oxide Exposure signed and notarized affidavit.
- signed and notarized affidavit – Changes in dose assessment.
- – High fired oxides signed and notarized affidavit.
- signed and notarized affidavit.
- , and – Work Practices leading to unmonitored exposures signed and notarized affidavit.
- and – Health Effects signed and notarized affidavit.
- Howard Gilpin, Director of Safety, Engineering and Quality, signed and notarized affidavit attesting to a list of occurrences including list of dates of historic fires. Date information and fire information was requested during the phone conversation and can be obtained from the documents provided by Mr. Gilpin. This information documents high fired oxide exposure sources from 1953-1988.
- signed and notarized affidavit regarding failure of TBD currently in use to take into account incidents after 1976 and attached radiological incident reports from 1988 to 2003 illustrating chronic enduring exposure issues at Rocky Flats. This information provides dates and details as requested.

Moved to Tab E.3

- ned and notarized affidavit – Burn Out Lines and Lung Count History.

Item 5. **Deficiency – April 27, 2005 Letter–** *"You agreed that the applicants will submit a witnessed, signed affidavit. As discussed, you have 30 days upon receipt of this letter documenting the phone call to submit signed affidavits . . ."*

Tab F.2 *Records Lost*

F.2 ATTACHMENT: *Employee Testimony Letters (2)*

- Letter signed as affidavit and notarized.
- Letter signed as affidavit and notarized.

Item 7. **Deficiency – April 27, 2005 Letter–** *"These letter should be listed under Section F, Item F.2 (we agree). You agreed to submit worker testimony letters as signed, witnessed affidavits. As discussed you have 30 days upon receipt of this letter documenting the phone call to submit signed affidavits to the address given on the second page of this letter."*

Tab F.2 **Worker Testimony Letters** *Representative Letters and Testimony*

- Letter resigned and notarized affidavit.
- 1 Letter resigned and notarized affidavit.
- Letter resigned and notarized affidavit.
- g Letter resigned and notarized affidavit.
- etter resigned and notarized affidavit.
- Letter resigned and notarized affidavit.
- etter notarized individual acknowledgement.
- Letter resigned and notarized affidavit.

DEPARTMENT OF HEALTH & HUMAN SERVICES
720 - 286 - 9361
Public Health Service

SEC Tracking Number 00030

National Institute for Occupational Safety and Health
Robert A. Taft Laboratories
4676 Columbia Parkway
Cincinnati, OH 45226-1998
Phone: 513-533-6825
Fax: 513-533-6826

April 27, 2005

Anthony W. DeMaiori
United Steelworkers of America, Local 8031
4510 Indiana Street
Golden, CO 80403

Dear Mr. DeMaiori:

This letter is to summarize the telephone conversation in which we discussed the results of the Special Exposure Cohort (SEC) qualification process with you and provided consultation on specific topics in your SEC submission. As you know from the submission receipt letter sent to you previously, the NIOSH SEC Tracking number for your submission is:

SEC 00030

As required in the SEC Rule (42 C.F.R. §§ 83.7 through 83.9) and outlined in the "Instructions for Completing Special Exposure Cohort Petition – Form B," certain elements are required to qualify a submission for evaluation. During the SEC qualification phase, each submission is carefully examined to verify that it meets the requirements of the Rule. We found that there were questions regarding your submission that we needed to discuss with you for clarification, or that your submission did not meet all of the requirements of the Rule.

A list of the issues we discussed with you is attached. For each of these items we have included remarks to summarize our conversation and to provide guidance intended to help you provide a submission that could qualify for evaluation.

NIOSH will complete the qualification process after you have submitted any necessary revisions, informed us that you do not wish to make recommended changes, or after the deadlines indicated below have expired. If your submission qualifies for evaluation, we will begin the evaluation process by notifying you and the Advisory Board on Radiation and Worker Health (the Board) that your submission has qualified for evaluation as a petition and by providing you a summary of the evaluation process. At that time, we will also post a summary of your petition on the OCAS web site (http://www.cdc.gov/niosh/ocas).

Please respond to this letter by addressing the requests for information or changes to your submission as outlined in the attached document, which summarizes our

conversation. Please note that there are various time frames for responses on selected items. These time limits are established by the Rule (42 C.F.R § 83.11). You may also respond with corrections to your responses, if you believe such corrections are necessary. Please be sure to include your NIOSH SEC Tracking Number on all correspondence. Any correspondence should be addressed to:

SEC 00030
Office of Compensation Analysis and Support
NIOSH MS-C-47
4676 Columbia Parkway
Cincinnati, OH 45226

During this period, if you have any questions regarding your submission, please contact OCAS toll-free at 1-800-35-NIOSH (1-800-356-4674), directly at 513-533-6800, or by email at ocas@cdc.gov . You may also contact our contractor toll-free at 1-800-322-0111. Additional information about OCAS, the SEC Regulation and the SEC procedures can be found on the OCAS web site at http://www.cdc.gov/niosh/ocas.

Sincerely,

for/ Larry J. Elliott, MSPH, CIH
Director
Office of Compensation Analysis and Support

Attachment

cc:
Bob Santangelo
Steven Trujillo

File: (17) Consult Letter [Final] (04-27-2005)

Qualification Phone Call Discussion and Agreements

A qualification phone call was conducted on March 28, 2005 by interviewer Pat K., Health Physicist Karin J., and Rob M. of HHS with Anthony DeMaiori, Steven Trujillo and Bob Santangelo. A detailed review of this phone call follows. The questions/statements made by the interviewer or Health Physicist are stated first and the responses of the interviewer and the applicants are stated in italics.

In addition, a follow up call was made on Friday, April 1, 2005, by Pat K. to answer your question regarding documentation of chronic exposures. As discussed, chronic exposures can be documented in Section F.

NOTE: Over 200 pages were provided with this submission. The provided documentation covers all of the information needed to continue with the qualification process, however, the information is not necessarily behind the correct tab. For example, most of the information behind Tab E.5 is information needed for Section F.

NOTE: There is some information that has been provided that does not support the qualification process. This information includes:

Sexton

a) Tab E.5, p.14, the first full paragraph discussing multiple different dose calculations and changing methodologies is not supporting documentation. *The basic principle of dose reconstruction is to characterize the occupational radiation environment to which a worker was exposed using available worker and/or workplace monitoring information. In cases where radiation exposures in the workplace environment cannot be fully characterized based on available data, default values based on reasonable scientific assumptions are used as substitutes.*

b) Tab F.4, the Defense Nuclear Facilities Safety Board (DNSFB) memorandum, titled, *"Trip to Review Feed Characterization for Rocky Flats Plant Building 707 Thermal Stabilization Process, January 20, 1994,"* does not address monitoring issues.

c) Tab F.4, Enforcement Conference Summary, does not address monitoring issues.

1. **Clarification.** In Form B, Section E, Item E.2 you indicated locations, "Such as Buildings 371, 374, 559, 707, 771, 776, 777, 778, 779 and any others to be identified."
   You agreed that all buildings at the Rocky Flats Plant should be considered. As discussed, you have 10 days from the date on this letter to document any disagreement with this action or statement by writing to the address given on the second page of this letter.

2. **Clarification:** In Tab E.5, on page 20, you provide "all of the work activities described in response to Section E.2 of Form B were very high in penetrating radiation exposure and known by employees as burn out lines."
   You agreed to change this reference to E.3. As discussed, you have 10 days from the date on this letter to document any disagreement with this action or statement by writing to the address given on the second page of this letter.

3. **Clarification:** In Section E, Item E.3, you indicate the job titles and job duties as "all" and you direct us to see Tab E.3 for additional information.
   You agreed to include all represented members, past and current, of USWA Local 8031 and its predecessors (see page iii of the initial petition submittal) who have worked at Rocky Flats. As discussed, you have 10 days from the date on this letter to document any disagreement with this action or statement by writing to the address given on the second page of this letter.

4. **Clarification.** In Form B, Section E, Item E.5, you indicated in the check box that the submission was based on one or more unmonitored, unrecorded, or inadequately monitored or recorded exposure incidents.
   You agreed that additional information will be provided in the form of an affidavit. As discussed you have 30 days upon receipt of this letter documenting the phone call to submit signed affidavits.
   You agreed that the glovebox fire in 1965 should also include building 777. As discussed, you have 10 days from the date on this letter to document any disagreement with this action or statement by writing to the address given on the second page of this letter.

5. **Deficiency.** A letter was attached for Section F, Item F.2 (Tab F.2), to support the basis that radiation monitoring records for members of the proposed class have been lost, falsified, or destroyed (dosimetry chips were inadvertently lost or destroyed during the reading process).
   You agreed that the applicants will submit a witnessed, signed affidavit. As discussed you have 30 days upon receipt of this letter documenting the phone call to submit signed affidavits to the address given on the second page of this letter.

6. **Clarification.** Tab E.5, although intended to support Form B, Section E, Item E.5, also supports Form B, Section F, including Items F.1, F.2, F.3 and F.4.
   You agreed that this information may be considered in Section F. As discussed, you have 10 days from the date on this letter to document any disagreement with this action or statement by writing to the address given on the second page of this letter.

7. **Deficiency.** Worker Testimony Letters were attached for Section F, Item F.4 (Tab F.4), to support the basis that radiation monitoring records for members

of the proposed class have been lost, falsified, or destroyed. These letters should be listed under Section F, Item F.2.

You agreed to submit the worker testimony letters as signed, witnessed affidavits. As discussed you have 30 days upon receipt of this letter documenting the phone call to submit signed affidavits to the address given on the second page of this letter.

Done

8. **Clarification.** At the bottom of the submission, you have stated, "The USWA, Local 8031 reserves the right to provide additional information beyond that which is included in this petition and in support of our ability to obtain Special Exposure Cohort designation for the Rocky Flats class of workers."

   We discussed that if additional information or clarification was needed we would contact you. We also discussed that evaluation of your submission would begin based on the information already received or received on the basis of the discussion of the clarification/deficiency issues identified in this letter. As discussed, you have 10 days from the date on this letter to document any disagreement with this action or statement by writing to the address given on the second page of this letter.

Note: We want to make it clear that any additional information that is provided to NIOSH after a submission is qualified for evaluation will not necessarily be considered in the initial evaluation report that is provided to the Board. NIOSH may elect to address such information in a supplementary report.

Class Definition. Based on the previously discussed information you agreed that the proposed class definition for this submission should include: All represented members, past and current, of USWA Local 8031 and its predecessors who have worked at all of the facilities at Rocky Flats Plant between the time period of April 1952 and Feb. 15, 2005.

As discussed, you have 10 days from the date on this letter to document any disagreement with this action or statement by writing to the address given on the second page of this letter.

SEC 00030

September 24, 2004

1957 FIRE

On September 11, 1957 at approximately 10:10 PM a fire was discovered in a Plexiglas glovebox in a development laboratory in building 771. Plutonium casting residues stored in a container on a shelf within the glovebox had self-ignited. The heat from the container then ignited the Plexiglas wall of the glovebox.

At 10:39 PM an explosion occurred in the plenum as a result of the accumulation of the gases from the fire. This ignited the combustible type filters in the plenum.

The fire was controlled at 2:00 AM on September 12 and was declared out at 11:28 AM on the same day. The fire inadvertently spread contamination throughout the building and as a result of the fire getting into the filter plenum, contamination was released to the environment.

5/13/05

SUBSCRIBED AND SWORN TO
BEFORE ME, IN THE COUNTY OF Jefferson
STATE OF COLORADO. THIS 13th DAY
OF May, 2005
CLARENCE W. BUCHHOLZ, NOTARY PUBLIC
MY COMMISSION EXPIRES SEPTEMBER 23, 2006

CLARENCE W. BUCHHOLZ NOTARY PUBLIC STATE OF COLORADO

SEC 00030

5/10/05

Fire of 1965

On October 15, 1965 a fire occurred during a maintenance operation in Glovebox 752 in building 776/777. The fire burned in an oil-laden pipe under the glovebox at temperatures in excess of 1800 degrees Celsius. Finely divided plutonium burned in the atmosphere outside of the box, causing air and surface contamination to spread throughout most of Buildings 776,777, and 777A.

As a result of this incident, 25 people received significant internal depositions, some as high as 30 times the maximum allowable lung dose which equated to lung burdens of more than 480 nanocuries. These 25 people were restricted from working in areas that may have lead to further exposure to plutonium. By January 1967, (one full year later) 14 of these Persons had their restriction lifted.

Following the accident, over 380 employees were body counted. It has since been determined that many more than 25 people received exposures from the 1965 fire. The direct cost due to the fire was estimated to be $17,500 dollars. The following two pages is a status list of a few effected employees.

I Steve Trujillo attest that the information presented in this letter to be to be true and accurate.

Respectfully,

5-20-05

Steve Trujillo

Co-Chair
Hazardous and Toxic Materials Subcommittee

SUBSCRIBED AND SWORN TO
BEFORE ME, IN THE COUNTY OF Jefferson
STATE OF COLORADO. THIS 20th DAY
OF May, 2005

CLARENCE W. BUCHHOLZ, NOTARY PUBLIC
MY COMMISSION EXPIRES SEPTEMBER 23, 2006

CLARENCE W. BUCHHOLZ NOTARY PUBLIC STATE OF COLORADO

CURRENT STATUS OF THOSE EMPLOYEES INVOLVED IN THE FIRE OF 1965

1. Terminated
Died 12-9-75
(Prostatic cancer)

2. Retired

3. Terminated

4. Terminated

5. Terminated
Died 10-30-71
(Coronary occlusion with infarction)

6. Terminated

7. Terminated

8. Terminated

9. Terminated

10. Terminated

11. Terminated

12. Terminated
Died 2-12-76
(Acute myocardial infarction)

13. Man No. Still working at Rocky Flats
Planners

14. Man No. Terminated

15. Man No. Terminated

16. Man No. Terminated
Died 10-25-83
(Pneumonia, myocardial infarction, emphysema)

17. Man No. Terminated

18. Man No. Died 3-19-70
(Bladder cancer)

19. Man No. Terminated

20. Man No. Terminated

21. Man No. Terminated

DCJ 5-20-05

CURRENT STATUS OF THOSE EMPLOYEES INVOLVED IN
THE FIRE OF 1965
(continued)

22. Man No. Terminated

23. Man No. Terminated

24. Man No. Terminated

25. Man No. Terminated, then returned to Rocky Flats. Now working in Plt Alarms & Comm.

26. Man No. Terminated

DEJ 5-20-05

SEC00030

May 15, 2005

To Whom It May Concern

I worked in building at the Rocky Flats Environmental Technology site from through During my building occupancy, I rarely wore a dosimetry badge due to the site monitoring policy. Employees were instructed to only wear their badge when physically located within the production area. When workers worked in the office areas adjacent to the production area, their dosimeter badge was to be hung on the dosimeter badge board. Additionally, in the late dosimeter badges were pulled from office workers located within as a cost savings measure. Due to both of these policies, dose records for administrative employees located within building are inadequate.

Sincerely,

Notorized by: Beth Glinos Dated: 5-14-2005

BETH GLINOS NOTARY PUBLIC STATE OF COLORADO

My Commission Expires 03/09/2008
15250 W. 64th Ave.
Arvada, CO 80007

NIOSH Tracking #

February 7,2005

ORAU
4850 Smith Rd., Suite 200
Cincinnati, OH 45212

Dear Heather

I have received the draft copy of my dose reconstruction that was calculated by your office. I have several concerns regarding the accuracy of this report based on the values and methodology that were used for the reconstruction. It is my understanding that the 21 missing doses were replaced with a "below the level of detection value of 39 mrem". These missing doses were for years when I was a chemical operator in a plutonium processing area. My daily job scope included "hands on" Pu processing. As an operator, I was required to initial my dose record every two weeks. At minimum, six of the missing doses were for instances when my report came back "no data available", and coincidentally, these doses are associated to times I worked inside of a vault for inventory or performed other high dose activities. On Dr. Bistline a nuclear researcher at Rocky Flats informed me that "If the films were too dark to read due to high exposure, zeros were assigned for those badge readings. I recall some high doses that are not included in my provided records. My records also did not include the statements that we signed when we were counseled for exposures above the mandated levels or actually removed from the production floor due to high-dose badge readings. Records were allegedly artificially corrected for values that were above anticipated norms. Also, during that time period, the recorded dose readings are inaccurate due to the badge location. I was required to wear the dosimeter badge beneath my lead apron so my badge only reflects a portion of what I received. Since I was surrounded by Pu processing production lines, my back side, head, and limbs received substantial dose that is not indicated in the records.

In addition to the missing doses from my years in production, I have concerns about the values that were used from through As an exempt salary employee, I only wore my dosimeter when I entered the production area; dosimeters were required to be hung on the dosimeter boards when not in the production area. These dosimeter boards were located outside of the building in special structures because the background dose was too high within the production buildings. From through my office was always within 50 feet of the production areas, and at times immediately adjacent to the production area. Additionally, from material drum storage including high level drums was immediately below my office. Though area dose was not recorded until after similar dose readings can be assigned for earlier years as the building mission did not change from to when Pu was shipped offsite. I submitted a freedom of information request last September for these records. I finally received these records last month; I am including a copy of these records for your review.

These records are quite interesting for several reasons. Areas with extremely high doses were not surveilled regularly, not usually more than a year. Several examples:
room had quarterly readings of 300, 547, 1480, and 517 mrem for annual corrected dose of 2844 mrem per year (attachments 1 and 2). This value has already been corrected to only reflect dose for a 2000 hour work year exposure. During this time period, work weeks were usually 45+ hours so again dose was understated. ne planners' office, had an annual dose reading of 2120 mrem for Room oom had

an annual dose reading of 284 mrem. The Rad Engineers justified these exposures by writing letters (sample attachment 3) that stated employees never spent more that 1/16 of their work day in these high dose level areas. I spent at least an hour each day in the for several years. At 10:00 hours, we had the plan of the day (POD) pre-meeting to load work for the building POD meeting, and at 13:30 hours we met to discuss procurement problems or any issues that would impact work. As , I spent time also in room with the planners, work control coordinator and the procurement specialist. As for the my office for many years was between the and the

During my years as my office has always been within feet of the production areas. Over the years I have had an office in and in several locations in building (rooms and - see attachment 4). Prior to when the radioactive material was transferred off site, nearly all rooms in had annual exposures well above the 200 mrem that was used for my dose reconstruction. Though I do not have a lot of information on area dose in building my office was adjacent to the production area. I was able to locate the dose reading for m ny office), south wall (my desk location) for Attachment 5 lists the dose adjusted for 2000 hours as 826.33 mrem. Immediately south of the wall for was a high-level Americium processing line that was abandoned prior to1983. The dose outside my office in the main corridor was high enough to set-off the security alarms that were installed in the 1990s. My former office had to have shielding installed in the walls to prevent the security check point alarms from sounding.

The majority of my production years were spent in building This area had high-fired oxides which according to Dr. Bistline, are not well correlated to actual exposures using the ICRP 66 code methodology. Due to energy levels [one micron size], the old ICRP 26 model more accurately reflects dose at Rocky Flats.

In summary, I have concerns for the validity of this dose reconstruction for the following reasons:

- zeros that should read as extremely high doses
- accuracy of the dose readings due to the lead shielding provided by the lead aprons worn for bag outs
- the significant dose that was not recognized during my salaried years as technical support with my office areas located within feet of the production area
- dose adjusted for 40 hour week rather than actual work time of 45+ hours
- methodology used to determine my dose.

I look forward to your answers regarding these concerns.

Sincerely,

SafeSites OF COLORADO, L.L.C.

Rocky Flats Environmental Technology Site

INTEROFFICE CORRESPONDENCE

DATE: June 1, 1999

TO: Distribution

FROM: G. M. Aldrich, Radiological Safety, Bldg. 371, X7175

SUBJECT: BUILDING 371/374 AREA MONITORING TLD (AMTLD) INVESTIGATION FOR THE 1st QUARTER, 1999 - GMA-009-99

Attachment 1 contains Building 371/374 Area Monitoring results for the 1st Quarter (Qtr.), 1999. In accordance with RSP 05.01, *Area Monitoring*, the investigation required for locations exceeding 75 mrem/year is provided below.

Highlights

Increases were seen in Building 371 main floor south hallway, the Women's Locker Room/Lavatory, and several other areas of the main floor above basement Rooms 2002/2011[1], where expanded drum storage capacity is being utilized. None of the areas of increase were spaces of full-time occupancy (offices). Radiation levels in rooms adjacent to the Room 3189 drum storage appeared to have *decreased* slightly last quarter by about 15% from the previous period. A problem noted last year with elevated radiation levels in the Shift Manager's Office, Room 3136 (resolved in the 4th Qtr. 98), was confirmed to *still be* resolved in the 1st Qtr. of 1999, due to effective ALARA reconfiguring done by the drum team and Radiological Engineering (RE). Supplemental TLD results in the vicinity of the Shift Manager's office averaged about 38 mrem/yr, adjusted for occupancy.

Specific Areas Investigated

All Building 371 or 374 rooms or areas that exceeded 75 mrem/yr were investigated. Findings and actions taken are summarized below:

- The Room 3109 RCT Break Area (79 mrem/yr on the north wall) and Room 3119 Instrumentation Storage (81 mrem/yr on the north wall) exceeded the trigger.

[1] The Room 2002/2011 south basement contains a drum storage area with radiation levels averaging between 15-30 mrem/hr (~50% of this is neutron dose). The basement floor is about 25 feet vertically below the main floor, with no shielding materials separating the two floors except for structural floor cement and some HVAC system components. Although gamma dose from these drums decreases rapidly with distance, neutron propagation is more tenacious, and does elevate ambient dose rates in main floor areas above. (c.f. Attachment 2 for AMTLD results)

The dose rates for both rooms *decreased* over the past two quarters due to completion of the ALARA reconfiguration in Room 3206. Occupants will not exceed 100 mrem/yr of unmonitored dose due to relatively low occupancy factors (1/4 for Room 3109, and 1/8 for Room 3119). Neither room is posted as an RBA, though Room 3119 is controlled as a Radioactive Material Area during instrument performance checks and source use. Whenever penetrating radiation source use occurs in Room 3119, a temporary RBA or RA is also established and TLDs required to enter the affected area.

- Last quarter, AMTLDs on the north wall/west side of Room 3141A (Men's Locker Room) *decreased* from 173 mrem/yr to 98 mrem/yr. The north wall center area also decreased from 175 mrem/yr to an average of 144 mrem/yr, while the north wall/east side AMTLDs increased from 124 mrem/yr to 142 mrem/yr. Overall, the Men's Locker Room dose rates decreased, and are expected to continue this trend as ALARA configuring of drum storage area (Room 3420) is completed for NMH&P repacking operations. Other dose contributions for this area originate from basement drum storage beneath it. However, this room has not met RBA criteria due to low occupancy (~1/8). The central areas of the locker room have average dose rates around 76 mrem/yr for 2000-hrs or less than 10 mrem/yr adjusted for typical occupancy.

- The Room 3151 Tool Crib, to the south of Room 3206 Sand, Slag and Crucible and Salt repack operations had readings on the NE wall of 51 mrem/yr, down from 73 mrem last quarter. This location has very low occupancy, < 1/16, but still should continue to be tracked as Salt Repack operations ramp-up in June and July.

- Bldg. 374 Room 2107 Utilities West wall AMTLDs read 78 mrem/yr last quarter, down from 89 mrem/year the previous quarter. Doses in this area are caused by drum storage in the hallway to the west of the Utilities control room. The area has low occupancy < 1/16. Workers are shielded from the adjacent radioactive material storage by the utilities control panels and a stand-off distance of 15-20 feet. No individual would be expected to receive more than 100 mrem/yr from full-time occupancy.

- The Bldg. 374 Room 3159 Electrical Shop north wall AMTLD readings *decreased* last quarter with average levels seen of 76 mrem/yr. Access to the north wall is restricted by situating storage cabinets. Craftsperson time in Room 3159 is <1/4, and AMTLD doses decrease to about 22 mrem/yr at the room entrance. No individual could exceed 100 mrem/yr unmonitored dose from current occupancy and use of this shop area.

- The Room 3163 Planner Office in Bldg. 374 is not currently posted as an RBA, but has been in the past. AMTLD readings on the west wall last quarter *decreased* from 111 to 69 mrem/yr, and at the east entry from 24 to 21 mrem/yr. Though the occupancy in this office is fairly high (~3/4), occupants are administratively restricted from having cubicles on the west side of the room adjacent to the Room 3189 drum storage area. Planners would not be expected to receive more than 50 mrem unmonitored dose over a full

2000-hr working year from continuous occupancy in this area. Use of wall shielding is not required at this time, and the area continues to remain as a non-RBA.

- AMTLDs in 18T dock area, north of the Room 3189 Drum Storage Area read 396 mrem/yr inside the posted RBA at the room entry door, and 222 mrem/yr to the west of the roll-up door outside of the RBA. Occupancy is very low (<1/16), and personnel normally only access these area while loading or unloading drums from Room 3189. Unmonitored dose will not exceed 100 mrem/yr in the 18T dock area, and the currently posted RBA boundary is adequate to prevent unmonitored dose problems.

- Room 4104, a low occupancy room in the Bldg. 374 attic and posted RBA , had doses of about 392 mrem/yr last quarter. This room is a permanently posted RBA with occupancy less than 1/16. Due to its close proximity above the ceiling of the Room 3189 Drum Storage Area, this room will remain an RBA.

- RE has reviewed the list of currently installed AMTLDs (Attachment 1) and judged these to be adequate for the past quarter, except for location errors noted. *It is requested due to the Room 2202/2011 basement drum storage area expansion that more permanent AMTLDs be added in the Room 3002 South Hallway and the SW Offices above the drum storage areas commencing at the start of the 3rd Qtr. 99.* RE is available to work with External Dosimetry in identifying locations. A list of new locations where permanent AMTLDs are required is provided as Attachment 3.

In addition to the extensive AMTLD program, additional *supplemental* TLDs were also deployed to measure short-term changes of dose rates in locations where increases & decreases might be expected. Attachment 2 contains a summary of the Building 371/374 supplemental TLDs deployed in the 1st and 2nd Qtr. timeframe. These readings, adjusted for occupancy, also indicate that no individual would be likely to exceed 100 mrem/yr unmonitored dose.

Operational Management review and concurrence with this investigation per RSP 05.01 is provided below.

S. M. Sax, Building 371/374 Project Manager — 6/1/99 Date

Attachments: As Stated

cc:

J. T. Bruner w/o Att. 1	J. S. Jarvis	S.M Sax w/o Att. 1
M.F. Durel w/o Att. 1	S.W. Kranker w/o Att. 1	T. L. Vaughn w/o Att. 1
D.C. Goble w/o Att. 1	A.E. Light	D.L. Wirkus w/o Att. 1
D. J. Harward w/o Att. 1	L.L. Rands w/o Att. 1	J.K. Wrapp w/o Att. 1

371/374 Area Monitoring Files

1st Qtr. 1999

Bldg. 371/374
Supplemental TLD Summary Log

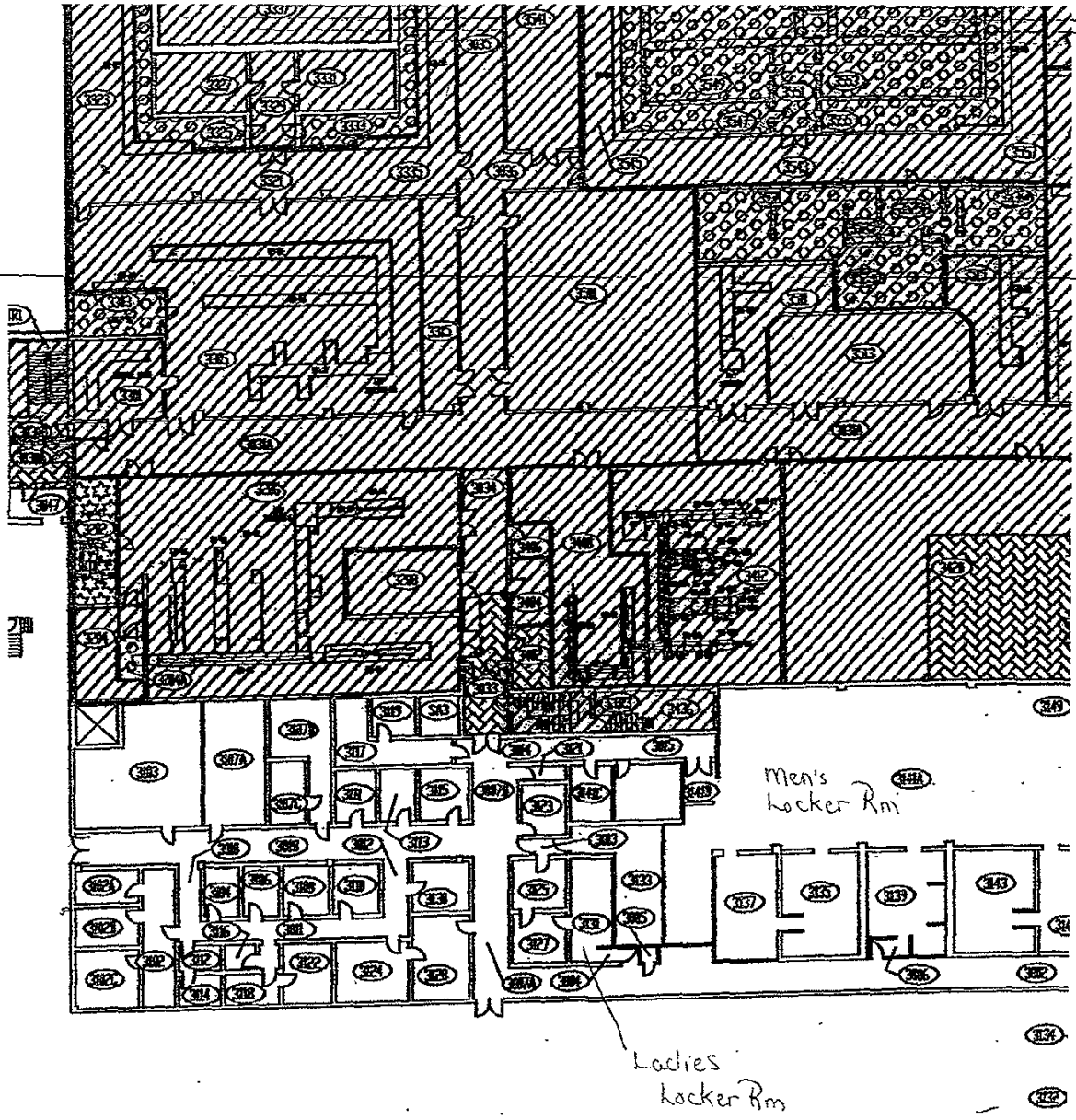
Attachment 2
GMA-009-99
Page 1 of 1

Supp. TLD #	Date On	Date Off	Total Hours Deployed	2000-hr Corr. Factor	Deep Dose (mrem)	Neutron Dose (mrem)	Gamma Dose (mrem)	2000-Hr Corrected Dose	Room Occupancy Factor	Est. Annual Individual Dose (Note 1)	Supplemental TLD Location/ Area Description	Comments/ Discussion
3468	2/3/99	5/21/99	2568	0.78	98	61	37	76	1/16	4.8	South Hall By Men's Lav	
3469	2/3/99	5/21/99	2568	0.78	96	55	41	75	1/16	4.7		
3470	2/3/99	5/21/99	2568	0.78	90	56	34	70	1/16	4.4	South Hall By Women's Lav	
3471	2/3/99	5/21/99	2568	0.78	86	57	29	67	1/16	4.2		
3472	2/3/99	5/21/99	2568	0.78	72	52	20	56	1/16	3.5	Main Entry Vestibule/Foyer	
3473	2/3/99	5/21/99	2568	0.78	75	65	10	58	1/16	3.7		
3474	2/3/99	5/21/99	2568	0.78	53	31	22	41	3/4	31.0	Room 3136 Shift Mgr. Office	
3475	2/3/99	5/21/99	2568	0.78	69	46	23	54	3/4	40.3		
3476	2/3/99	5/21/99	2568	0.78	74	45	29	58	3/4	49.2		
3477	2/12/99	5/21/99	2352	0.85	25	25	0	21	1/16	1.3	Hall Outside Rad Safety Office	
3478	2/12/99	5/21/99	2352	0.85	23	23	0	20	1/16	1.2		
3479	2/12/99	5/21/99	2352	0.85	50	33	17	43	1/16	2.7	Speaker Outside Women's Lav	
3480	2/12/99	5/21/99	2352	0.85	47	32	16	40	1/16	2.5		
3481	2/12/99	5/21/99	2352	0.85	62	0	62	53	1/4	13.2	Room 3128 WC/Salt Office	
3482	2/12/99	5/21/99	2352	0.85	22	22	0	19	1/4	4.7		
3483	2/12/99	5/21/99	2352	0.85	42	24	18	36	3/4	26.8	Rad Engineering Office	
3484	2/12/99	5/21/99	2352	0.85	15	15	15	13	3/4	9.6		
3485	2/12/99	5/21/99	2352	0.85	21	0	21	18	1/16	1.1	Room 2124 North Wall	
3486	3/15/99	5/21/99	1608	1.24	25	25	0	31	1/16	1.9	Drinking Fountain Outside 3128	
3487	2/12/99	5/21/99	2352	0.85	22	0	22	19	1/16	1.2	Room 2124 West Wall	
3488	2/12/99	5/21/99	2352	0.85	30	0	30	26	1/16	1.6	Room 2124 West Wall	
3489	3/15/99	5/21/99	1608	1.24	90	57	33	112	1/16	7.0	Xerox Machine, South Hall	
3490	3/15/99	5/21/99	1608	1.24	108	69	39	134	1/16	8.4	Xerox Machine, South Hall	
3491	3/15/99	5/21/99	1608	1.24	113	78	35	141	1/2	70.3	A-Vestibule, Rm 3017A East	6 additional AMTLDs deployed
3492	3/15/99	5/21/99	1608	1.24	46	46	0	57	1/2	28.6	A-Vestibule, Rm 3017A South	Average 2000-Hr Dose: ~87 mrem/yr
3493	3/15/99	5/21/99	1608	1.24	50	29	21	62	1/2	31.1	A-Vestibule, Rm 3017A Table	(Predominantly neutron)
3494	3/31/99	5/21/99	1224	1.63	97	67	30	158	1/8	19.8	In Women's Lav, Rms 3125/31	East Side Locker Room
3495	3/31/99	5/21/99	1224	1.63	87	57	30	142	1/8	17.8	In Women's Lav, Rms 3125/31	
3496	3/31/99	5/21/99	1224	1.63	145	97	48	237	1/8	29.6	In Women's Lav, Rms 3125/31	West Side Locker Room
3497	3/31/99	5/21/99	1224	1.63	174	131	43	284	1/8	35.5	In Women's Lav, Rms 3125/31	(North of Xerox)
3388	3/31/99	5/21/99	1224	1.63	47	47	0	77	1/8	9.6	In Women's Lav, Rms 3125/31	Northwest Side Locker Room
3389	3/31/99	5/21/99	1224	1.63	46	46	0	75	1/8	9.4	In Women's Lav, Rms 3125/31	

General Notes/Comments:

Additional Building 371/374 Areas Requiring AMTLD Coverage

Room/Area	Location	Comments
3136	Under Desk, Facing Down	Shift Manager's Office
3128	Under Desk, Facing Down	Salt Repack Supervisor's Office
3130	Under Desk, Facing Down	RE Office
3133 South	Under Locker Benches, Facing Down	Women's Locker Room
3006	Under Desk, Facing Down	Tap & Drain Office
3116 Vestibule	Hall Outside Manager's Office, Facing Down	Facility Managers Area
3139	Men's Lavatory, Facing Down	Under sheet metal shelf


Men's
Locker Rm
Ladies
Locker Rm

SEC 00030

Inaccurate Exposure Records

All the way through my records, there are quarters (there are 4 quarters in a year) where there are missing dose records. I have worked at Rocky Flats for years.

In nuclear material into the in Building , 6 quarters out of 8, there is no data available for my dose. This work had very high dose. Up to 8 R/hr. Operators assigned were routinely rotated, due to the high dose, but as a I was not.

In either or , an incident in Building Room a glovebox bag came off. I was contaminated from head to toe and there was ten to the sixth contamination on my full-face respirator. There was no fecal sample taken but my lung count was positive. I was told that it was a statistical high and was recounted in another room. I was told that I had not received an inhalation. later, I was given a dose for this incident.

In I voluntarily gave 3 fecal samples and they came back positive. I was not involved in any incidents. I was actually on restriction because of and was only in a Radiological Area for before the samples. ~~This was the first time I ever gave a fecal sample voluntarily or~~ involuntarily in my entire career.

SUBSCRIBED AND SWORN TO BEFORE ME, IN THE COUNTY OF Jefferson STATE OF COLORADO. THIS 17th DAY OF May, 2005

CLARENCE W. BUCHHOLZ, NOTARY PUBLIC
MY COMMISSION EXPIRES SEPTEMBER 23, 2006

CLARENCE W. BUCHHOLZ NOTARY PUBLIC STATE OF COLORADO

SEC 0030 in 2

High Fired Oxides

Went in and cleaned up numerous dry-box fires like when the incinerator window blew off. We spent about 3 weeks cleaning it up, in half-mask respirators.

Reduction Line, pressure vessel blew up under conversion from dirty PuF4 to metal and blew it all over . This occurred twice, experiment failed.

Numerous fires on the MK line (junk line) Pu scraps put on hotplate and incinerated.

Several over-pressurizations of exhaust caused blow-backs into the rooms with visible clouds of contaminants some of which had to be high fired oxides.

Molten Salts Building 776, hole in the furnace (double lined) had eaten through both walls, and made a hole. Other operators told not to use that furnace, and later the furnace was loaded, heated and over-pressurized, causing it to vent to the atmosphere in the room, personnel were without respiratory protection. No bioassays were taken.

Sent up to the pre-filters before the main exhaust) to see what had happened after the fire (Was told to go up and open the outer airlock door, which I did. The fire had been so intense, that the filters were all burned up and the fire was so hot that the gasket around the inner door was gone. This allowed the contamination from the plenum to come into the inner airlock. When I opened the door (outer airlock), gross amounts of Pu contamination enveloped and myself at levels greater than ten to the sixth. Airborne contamination was in the millions of DAC.
The first air samples they took were greater than ten to the sixth for a 24 hour sample. We used Army assult masks with single canisters. An individual was moving one of the pieces of chared metal, and as he turned around, the piece of metal hit me in the leg and cut it. Direct blood uptake of high fired oxides.

CLARENCE W. BUCHHOLZ NOTARY PUBLIC STATE OF COLORADO

SUBSCRIBED AND SWORN TO BEFORE ME, IN THE COUNTY OF Jefferson STATE OF COLORADO. THIS 16th DAY OF May, 2005

CLARENCE W. BUCHHOLZ, NOTARY PUBLIC
MY COMMISSION EXPIRES SEPTEMBER 23, 2006

When they did my dose reconstruction for the neutrons, they included . I was on active duty in ..... and had handled no radioactive material while I was away from Rocky Flats.

Worked the _ . and before they used shielding for neutrons.

Small Americium button made and a reading was taken and was approximately 40 Rem there were no precautions for Gamma.

While we were working the Americium line, our dose reports came back as "no data available." We were using the "old film badges" and the more exposure that you received, the darker the badge would get. The company stated that due to the darkness of the badge, the individuals could not have received that high of a dose. Therefore "no data available" was assigned for dose.

While not in use, proper storage/placement for TLDs and film badges was never enforced.
Personnel with lower doses could have actually received a higher dose than those with the higher dose that improperly stored their badges.

CLARENCE W. BUCHHOLZ NOTARY PUBLIC STATE OF COLORADO

SUBSCRIBED AND SWORN TO BEFORE ME, IN THE COUNTY OF Jefferson STATE OF COLORADO. THIS 16th DAY OF May 2005

CLARENCE W. BUCHHOLZ, NOTARY PUBLIC
MY COMMISSION EXPIRES SEPTEMBER 25, 2006

SEC 000030

KAISER•HILL
COMPANY

May 19, 2005 05-RF-00505

Anthony W. Demaiori
4510 Indiana Street
Golden, CO 80403

CHANGES IN INTERNAL DOSE ASSESSMENT METHODOLOGIES AT THE ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE – RJS-008-05

This letter is in response to your request for information on how internal dose assessment methodologies have changed over the years.

The methods for estimating internal dose have evolved over the past 50 years and are principally based on federal regulations (10 CFR 835), DOE orders and the recommendations of the International Commission on Radiological Protection (ICRP). During the period Rocky Flats operated, three basic internal dose calculation methodologies were used.

Prior to 1989, internal dosimetry calculations were based on methodologies recommended by the ICRP in Publication 2 (ICRP-2) and the systemic burden equations derived from a modified Wright-Langham equation.

With the publication of DOE Order 5480.11 in 1989, potential intake cases received follow-up sampling, and if an intake occurred, the annual effective dose equivalents (AEDE) were calculated and assigned to the individual's exposure history record. The methodology employed during this time period was based on ICRP-26/30.

When the DOE Radiological Control Manual was issued in 1993, internal doses due to intakes of radionuclides were calculated and assigned as committed effective dose equivalents (CEDE) using ICRP 26/30 methodologies.

In 1993, all systemic burdens (pre 1989 uptakes) for employees active at that time were converted to a calculated "lifetime dose" (approximated CEDE) and the dose was assigned to 1989. Also in 1993, those individuals assigned an AEDE since 1989 had a CEDE calculated and the remainder of the dose not already assigned was assigned to 1993 on the 1994 Annual Individual Occupational Radiation Exposure Reports. Those actions resulted in a large number of internal doses reported in 1989 and 1993 dose reports, the majority of which occurred in earlier years.

As I am sure you recognize, internal dosimetry is a complex subject and the information provided above is a brief summary of the techniques used. If you need additional information, please contact me or Steve Baker of my staff. Steve may be reached at (303) 966-2452.

Richard J. Sexton
Program Manager
Radiological Programs

SCB:abm

cc:
Steve Baker

CLARENCE W. BUCHHOLZ NOTARY PUBLIC STATE OF COLORADO

SUBSCRIBED AND SWORN TO BEFORE ME, IN THE COUNTY OF Jefferson STATE OF COLORADO. THIS 19th DAY OF May 2005

CLARENCE W. BUCHHOLZ, NOTARY PUBLIC
MY COMMISSION EXPIRES SEPTEMBER 22, 2005

Kaiser Hill, LLC
Rocky Flats Environmental Technology Site, 10808 Hwy. 93 Unit B, Golden, CO 80403-8200•303-966-7000

SIGNED AFFIDAVIT – HIGH FIRED OXIDES

May 17, 2005

ANTHONY WILLIAM DEMAIORI, STEVE TRUJILLO, RUDY MASTELONE

SEC Tracking Number 00030

We, Anthony William DeMaiori, Steve Trujillo, and Rudy Mastelone, submit the following letter as a signed affidavit in support of the Rocky Flats USWA Special Exposure Cohort Petition. This affidavit is submitted in response to Mr. Larry Elliot's letter dated April 27, 2005, and in particular in response to **Item 4 Clarification** – *"You agreed that additional information would be provided in the form of an affavit. As discussed you have 30 days on receipt of this letter . . . to submit signed affidavits."*

As President of the United Steelworkers of America, Co-Chair of the Hazardous and Toxic Materials Committee, and Co-Chairman of the Safety Committee, we attest that the Rocky Flats Class of Workers was exposed to a unique class of plutonium and that this exposure occurred as the result of numerous fires throughout the history of the Rocky Flats site and through the subsequent cleanup of the facilities in which fires occurred. Due to the extreme nature of high fired oxides, we have focused our basis for petition primarily on, but not limited to this unique area. High fired oxides are a relatively recently identified class of plutonium material. This form of plutonium is generated when plutonium is exposed to high temperatures in excess of 600 degrees Celsius (some argue this number to be as low as 400 degrees Celsius). High fired oxides at Rocky Flats were generated from the 1957 fire, the 1965 fire, the 1969 fire, numerous smaller fires, and numerous high temperature processes in several plutonium production facilities as described in response to Section E.2 of Form B. The 1965 fire had recorded temperatures in excess of 1800 degrees Celsius. High fired oxides are also referred to as Super Class Y materials. "(T)he possibility of a super class Y (super Y) form has been identified. Super Y was defined by the Hanford Internal Dosimetry Program in 1988 to describe highly nontransportable forms of plutonium based on some actual observed cases at Hanford (Bihl et al. 1988; Carbaugh, Bihl, and Sula, 1991)." The presence of Super Class Y materials has also been noted by experts at Rocky Flats, including Dr. Robert Bistline. The PNNL-MA-860 Chapter 8.0 issued January 31, 2003, noted that Super Class Y material is highly insoluble with retention half-lives of transport from lungs to blood 20 times longer than normal Class Y materials. It also noted the uncertainty surrounding this new class of material: "**The precise nature of super class Y material is not known**, although it appears to have been associated with processes involving high fired plutonium oxides. The phenomenon has been informally verified by dosimetry personnel at Rocky Flats, Savannah River, and Los Alamos sites, and is supported by literature (PNNL-MA-860 Chapter 8.0, Page 8.13)." In addition, British literature in the last few years has also noted the unique attributes of high fired oxides.

What is known about high fired oxides at Rocky Flats are that they are highly insoluble, may not be detected by standard bioassay, and result in particle sizes as small as 0.12 um AMAD.

The following factors make accurate assessment of dose for high fired oxides impossible:

1) High fired oxides are highly insoluble. This means that they can take as long as 6,000 days or more to show up in a urine bioassay. So by the time a high fired oxide

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Rom 5-17-5

exposure is detected in urine it is nearly impossible to link the exposure in time to the actual exposure incident, making accurate dose assignment impossible. In addition, standard chemistry used in fecal bioassay is unable to dissolve high fired oxides, invalidating many fecal results in which special chemistry was not used.

2) Little is known about high fired oxides. Accurate dose modeling takes decades to develop. Because high fired oxides are a relatively recent phenomenon, they are not accounted for in dose modeling in use today by NIOSH or in dose modeling for instance at Rocky Flats. Current models in use underestimate high fired oxide exposure by as much as a factor of 10 according to Dr. Bob Bistline. For example, high fired oxides at Rocky Flats have been found to range from 0.12 to 0.3 um AMAD, however NIOSH uses a particle size of 5.0 (ICRP 66) and even Rocky Flats Dosimetry Department uses a particle size of 1.0.

3) High fired oxides have self-shielding properties that make accurate assessment, even by lung count, impossible. When plutonium particles are heated to extreme temperatures they become "ceramicized" or glazed over on the outside of the particle. The hardened outer surface of the high fired oxide particle actually shields or masks the plutonium alpha radiation being emitted from the particle. This factor tricks the lung counter into detecting less plutonium than is actually present in the lung. According to Dr. Bistline with high fired oxides, the calculation of lifetime dose based on lung count is usually in error.

4) It is impossible to tell whether plutonium detected by lung count is soluble or insoluble so it is impossible to know what model to apply. Rocky Flats has both soluble and insoluble forms of plutonium. Using even a moderately soluble equation results in calculations that are completely in error. "Super Y screws up the modeling," said one dose assessment expert at Rocky Flats.

5) Because of the insolubility of high fired oxides, worker exposures can go undetected for decades. "We have found a number of people now years later that have plutonium in their bodies that was never picked up by the monitoring in place at the time," Dr. Bistline said in a recent phone interview. These new-found exposures cannot be tied to an incident date and so accurate dose reconstruction is impossible. "Dose assessment works well when you know the incident that the dose came from, not when you don't," according to a Rocky Flats dose assessment expert.

SUBSCRIBED AND SWORN TO BEFORE ME, IN THE COUNTY OF Jefferson STATE OF COLORADO. THIS 17th DAY OF May 20 05

CLARENCE W. BUCHHOLZ, NOTARY PUBLIC
MY COMMISSION EXPIRES SEPTEMBER 25, 2006

CLARENCE W. BUCHHOLZ NOTARY PUBLIC STATE OF COLORADO

Respectfully,

5.17.05

Anthony DeMaiori

President

United Steelworkers of America, Local 8031

DEJ 5-1705

Robin 5-17-5

5-17-05

Steve Trujillo

Co-Chair

Hazardous and Toxic Materials Subcommittee

SUBSCRIBED AND SWORN TO
BEFORE ME, IN THE COUNTY OF Eagle
STATE OF COLORADO. THIS 17th DAY
OF May 2005

CLARENCE W. BUCHHOLZ, NOTARY PUBLIC
MY COMMISSION EXPIRES SEPTEMBER 23, 2006

Rudy Mastelone

Co-Chair Safety Committee

Sworn to on May 17, 2005

CLARENCE W. BUCHHOLZ NOTARY PUBLIC STATE OF COLORADO

SIGNED AFFIDAVIT – DEMAIORI

May 17, 2005

ANTHONY WILLIAM DEMAIORI

SEC Tracking Number 00030

I, Anthony William DeMaiori, submit the following letter as a signed affidavit in support of the Rocky Flats USWA Special Exposure Cohort Petition. This affidavit is submitted in response to Mr. Larry Elliot's letter dated April 27, 2005, and in particular in response to **Item 4 Clarification** – *"You agreed that additional information would be provided in the form of an affavit. As discussed you have 30 days on receipt of this letter . . . to submit signed affidavits."*

As President of the United Steelworkers of America, Local 8031, I attest that the Rocky Flats class of workers meets all the specifications and requirements for inclusion in the Special Exposure Cohort based on the following factors:

1) **Exposure to a unique form of plutonium referred to as high fired oxides** or super class Y materials that are metabolized differently and have self-shielding properties which make accurate assessment of dose impossible. In addition, the uniquely small particle size of high fired oxides – as small as 0.12 um Activity Median Aerodynamic Diameter (AMAD) – makes current dose models inaccurate. Dose models in use at Rocky Flats use a particle size of 1.0 um AMAD and underestimate high fired oxide doses by a factor of 1-3. Current models in use by NIOSH – International Commission on Radiological Protection (ICRP) 66 – use a particle size of 5.0 um AMAD and underestimate these doses by as much as a factor of 10. High fired oxides were generated from the Building 771 fire in 1957, the Building 776 fires in 1965 and 1969, numerous other smaller fires, and multiple high temperature processes in furnaces, incinerators and production process areas used in multiple plutonium buildings at Rocky Flats. A detailed accounting of these activities is included in our petition. The impossibility of accurate dose assessment for high fired oxide exposure is summarized in more detail under a separate affadavit.

2) **Inability to link exposures to specific incidents or events** as evidenced by the Building 771 worker exposure issue as recently as 2000/2001. In this incident, workers received undetected exposures through chronic long-term exposures below the threshold of workplace monitors that were discovered only by happenstance. Without a date to enter into the equation for bioassay results, an accurate dose assignment is impossible.

3) **Periods of inadequate monitoring, lack of monitoring, changes in methodology, and inconsistency in procedures** over the history of the Rocky Flats site which make accurate dose reconstruction over time impossible. Examples include: no routine lung counting until the late 1960s, no monitoring for neutron radiation prior to late 1950s and neutron measurements found in error until 1970s.

4) **Unmonitored exposures surfacing throughout time.** As recently as 2004, a former worker from the 1950s was monitored under a DOE former worker

5.17-05

radiation program and was found to have a significant internal deposition that had gone undetected and unrecorded for nearly 50 years.

5) **Negative effects of site closure on accuracy of dose reconstruction.** As a closure site, Rocky Flats presents unique challenges for dose reconstruction in that the entire infrastructure will be eliminated and with it the subject matter experts that provide information and clarification for dose reconstruction questions. No one will be left that understands the data. Currently the Rocky Flats dosimetry department answers calls on a regular basis in support of dose reconstruction where data is missing, or part of a file is missing, in particular with the change in 1989 from systemic burden to dose when the Radiation Control Manual was implemented. When Rocky Flats is gone, there will be no one left who understands these nuances, making accurate dose reconstruction impossible.

6) With closure, **worker recall monitoring programs are going away.** The contract has ended for the former worker recall program through Oak Ridge where workers were called back every three years. The Rocky Flats program that recalls active employees on an annual basis will go away at closure. Currently there is nothing in place to replace these important activities.

7) **Exposure to plutonium has been causally linked to more than 20 types of cancer as well as lung fibrosis.** Plutonium exposure, in particular to high-fired oxides and their related ailments endanger the health of the members of this Rocky Flats class of workers. DOE and the federal government have recognized the causal role of plutonium exposure in these specific cancers as evidenced in the Energy Employees Occupational Illnesses Compensation Program Act (EEOICPA) which designates a list of cancers currently linked to radiation exposure. Additionally, the effects of synergism of exposures to different toxins are not known. In particular the effects of combination exposures where an individual has both plutonium and toxic chemical exposure, such as carbon tetrichloride, trichloroethylene, nitric acids, and numerous other toxic chemicals used at Rocky Flats. Synergism has been documented, for example, for the combination of plutonium exposure and cigarette smoking. The result is that a person who was exposed to plutonium and also smoked is 10 times more likely to contract lung cancer than a person who was not exposed to plutonium and smoked.

Our petition is based on multiple unmonitored, unrecorded, or inadequately monitored or recorded exposures that are not specific to specified incidents. Therefore, it covers the entire time period of plutonium exposure at Rocky Flats from April 1952 to the date of petition submittal. Specifics regarding unmonitored, unrecorded, inadequately monitored or recorded exposures are included in our SEC Petition Form B, Section E.5 and are provided via affidavits such as this one. This petition is further based on the fact that records and information are inadequate for individual dose reconstructions based on the fact that 1) certain types of radiation exposures and doses incurred by the Rocky Flats class were not monitored for certain periods of time and certain types of exposure (i.e. to high fired oxides) are inaccurately modeled and reported on dose records; 2) for certain areas either no monitoring occurred or dosimetry chips were destroyed or lost during processing resulting in no data available; 3) for many employees accurate records of what facilities a person

5.17.05

worked in and when they worked there do not exist, and 4) expert testimony supports the inability to reconstruct dose for high fired oxides; technical documents including site independent investigation reports, Price Anderson Amendment Act and Defense Nuclear Facility Safety Board reports support periods of inadequate monitoring. As applicable, these reports and expert testimony are referenced and attached to the SEC Petition, Form B.

This petition is further based on the unique challenges of a closure site that render the accuracy of future dose reconstruction impossible. This coupled with the passage of time, the secrecy of the past weapons production mission and the elimination of the recall programs that allowed for model refinement preclude accurate dose reconstruction. As stated by R. Williams Field, M.S, Ph.D., from the College of Public Health, Department of Epidemiology, "It is a fatal flaw to assume that an investigator, 30 to 50 years after the fact, can validly reconstruct work conditions and processes that led to maximal exposures at the time of employment. . . . Because of the secrecy of much of the former AEC/DOE work, especially on bomb construction and dismantlement, much of the work process information has been intentionally suppressed or destroyed."

Respectfully,

5.17.05

Anthony DeMaiori

President

United Steelworkers of America, Local 8031

Sworn to on May 17, 2005

CLARENCE W. BUCHHOLZ NOTARY PUBLIC STATE OF COLORADO

SUBSCRIBED AND SWORN TO BEFORE ME, IN THE COUNTY OF Jefferson STATE OF COLORADO. THIS 17th DAY OF May 2005

CLARENCE W. BUCHHOLZ, NOTARY PUBLIC
MY COMMISSION EXPIRES SEPTEMBER 23, 2006

SIGNED AFFIDAVIT -WORK PRACTICES

May 17, 2005

ANTHONY WILLIAM DEMAIORI, STEVE TRUJILLO, RUDY MASTELONE

SEC Tracking Number 00030

We, Anthony William DeMaiori, Steve Trujillo, and Rudy Mastelone, submit the following letter as a signed affidavit in support of the Rocky Flats USWA Special Exposure Cohort Petition. This affidavit is submitted in response to Mr. Larry Elliot's letter dated April 27, 2005, and in particular in response to **Item 4 Clarification** – *"You agreed that additional information would be provided in the form of an affavit. As discussed you have 30 days on receipt of this letter . . . to submit signed affidavits."*

As President of the United Steelworkers of America, Co-Chair of the Hazardous and Toxic Materials Committee, and Co-Chairman of the Safety Committee, we attest that worker exposures and doses have gone uncaptured due to a variety of engineering, poor work practices and procedural deficiencies throughout the history of Rocky Flats. We attest that these conditions were chronic and are not readily documented.

For example, employees routinely removed lead-lined or water shielded glove port covers because when the ports were opened they hit the employee in the chest while working. Once removed, the employees frequently forgot or chose not to put these important exposure shielding devices back on the gloveport. Then the employees would sit in chairs with their heads near the open glove ports. Your dosimeter is worn on the front of your chest. There is no dosimeter for your head so exposure to the head goes unmonitored and uncaptured.

Similarly, many glove lines had lots of different glove ports at different elevations. Some operations required access from many different areas. Operators would open a glove port for part of the job at waist level and leave it open and then open and work from another glove port overhead. While working overhead their pelvic region was receiving exposure from the open glove port below. This exposure was not monitored or captured because there is no dosimeter at that level.

Another example is workers removing "produce" cans of material. The workers would be wearing lead aprons and the cans were supposed to be shielded in a lead container, but many times when the work took longer, workers would remove the produce cans and place them under their arms or between their legs with no shielding in order to cut and tap it out of the line faster. The workers would be gaining exposure to their underarms and legs where no lead apron was present and where no monitoring devices existed to capture this exposure.

Lead aprons themselves presented a problem, because it was not clear to workers whether their dosimeter was supposed to go under or over the lead apron. So, depending on the job or building area, workers did it differently. Those who wore their dosimeters under the lead apron would have no record of dose exposure to the rest of their bodies (head, arms, legs, etc.). In particular with exposure to the head, a lawsuit involving an employee who contracted a brain tumor after receiving unmonitored exposure to the head was ruled in favor of the deceased employee. In another instance an NDT operator who wore lead

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Ray -5-17-5

aprons for a high exposure job now has cancer in an area that was unprotected by his apron (his larynx). He wore his dosimeter under the lead apron so his exposure was unrecorded. His testimony letter is included as an attachment in response to Section 4.

During production days, each plutonium building had a calculated background dose that was subtracted from the workers exposure. This was based on the exposure the TLD received from just hanging on the storage board in the hallway. However, two things are wrong with that scenario: 1) workers in the building, but not in the back area, were receiving unmonitored dose just like the dosimeters on the board, and 2) many workers did not store their dosimeters on the storage board so when the background was subtracted it actually resulted in lesser exposure being recorded. Workers also frequently forgot to wear their dosimeters into the production areas and most would not self-report so doses went uncaptured.

Another issue surrounded proximity of glovebox lines. In many buildings there would be a very "hot" operation requiring lead aprons going on next to a line that did not require lead aprons. So workers working a couple feet from each other would not be wearing the same protective equipment.

The practice of borrowing or assigning dose from an employee's co-worker when dose information for the employee has been lost or was not gathered has created inaccurate dose records for many employees.

Finally, in many instances workers would perform special "furtive" job tasks to help out their supervisors or managers, many times to correct a problem, clean up a contamination incident or perform rework. This work would be done outside the bounds of normal work controls with no airborne contamination monitoring and with no special worker monitoring. One RCT said that after such a job, he was highly contaminated and simply took off his respirator and contaminated clothing and threw it in the same waste drum with the mess he was cleaning up. This worker was working in an area with high fired oxide contaminates. Because the work evolution was not documented, no nasal smears or bioassays were conducted and no monitoring for dose beyond TLD was conducted. In talking to numerous workers, this sort of practice was more common than not.

Rocky Flats workers were chronically and repeated the recipients of unmonitored exposures. The engineering, procedural and work practice deficiencies, examples of which are outlined above, prevalent in Rocky Flats history make accurate dose reconstruction impossible.

Respectfully,

5.17.05

Anthony DeMaiori

President

United Steelworkers of America, Local 8031

SUBSCRIBED AND SWORN TO BEFORE ME, IN THE COUNTY OF Jefferson STATE OF COLORADO. THIS 17th DAY OF May 2005

CLARENCE W. BUCHHOLZ, NOTARY PUBLIC
MY COMMISSION EXPIRES SEPTEMBER 28, 2006

CLARENCE W. BUCHHOLZ NOTARY PUBLIC STATE OF COLORADO

DEJ 5-17-05
RM 5-17-5

5-17-05

Steve Trujillo

Co-Chair

Hazardous and Toxic Materials Subcommittee

SUBSCRIBED AND SWORN TO
BEFORE ME, IN THE COUNTY OF Jefferson
STATE OF COLORADO. THIS 17th DAY
OF May, 2005

CLARENCE W. BUCHHOLZ, NOTARY PUBLIC
MY COMMISSION EXPIRES SEPTEMBER 23, 2006

5-17-5

Rudy Mastelone

Co-Chair Safety Committee

CLARENCE W. BUCHHOLZ NOTARY PUBLIC STATE OF COLORADO

Sworn to on May 17, 2005

SIGNED AFFIDAVIT – HEALTH EFFECTS

May 17, 2005

ANTHONY WILLIAM DEMAIORI, STEVE TRUJILLO, RUDY MASTELONE

SEC Tracking Number 00030

We, Anthony William DeMaiori, Steve Trujillo, and Rudy Mastelone, submit the following letter as a signed affidavit in support of the Rocky Flats USWA Special Exposure Cohort Petition. This affidavit is submitted in response to Mr. Larry Elliot's letter dated April 27, 2005, and in particular in response to **Item 4 Clarification** – *"You agreed that additional information would be provided in the form of an affavit. As discussed you have 30 days on receipt of this letter . . . to submit signed affidavits."*

As President of the United Steelworkers of America, Co-Chair of the Hazardous and Toxic Materials Committee, and Co-Chairman of the Safety Committee, we attest that the Rocky Flats Class of Workers were harmed by their exposure to radioactive materials at Rocky Flats. The federal government has recognized the role of plutonium exposure in causing more than 20 types of cancers as addressed by the Compensation Act. In particular plutonium has been linked to cancers of the bone, liver, lung and leukemia and chromosome aberrations (Potential Health Problems from Exposure to Selected Radionuclides, May 2000). Other research has suggested that plutonium exposure weakens the immune system and leads to the development of cancers outside the lymph nodes. In 1987, a study by Gregg Wilkinson of Rocky Flats workers concluded that workers with plutonium inside their bodies had an increased risk of lymphopoietic neoplasms (tumors affecting white blood cells). One of the difficulties in assessing causation is the long lapse of time between when exposure occurs and when cancers are developed and diagnosed. "For plutonium exposure, the latency period is estimated to be more than 30 years, but it can vary depending on the dose received (Voelz, 1991)." Another difficulty is that research has yet to determine at what level plutonium exposure is harmful. In some cases an individual with low exposures contracts cancer and other suspected plutonium-related ailments, while in other cases an individual with abundant exposure does not. There are too many unknowns with respect to individual susceptibility to cancer and individual body reactions to plutonium exposure for causation determiners to set limits for an exposure level that is deemed by them to be harmful. Additionally, the effects of synergism of exposures to different toxins are not known. In particular the effects of combination exposures where an individual has both plutonium and toxic chemical exposure, such as carbon tetrachloride, trichloroethylene, nitric acids, and numerous other toxic chemicals used at Rocky Flats. Synergism has been documented, for example, for the combination of plutonium exposure and cigarette smoking. The result is that a person who was exposed to plutonium and also smoked is 10 times more likely to contract lung cancer than a person who was not exposed to plutonium and smoked.

AWD 5.17.05

SEJ 5-17-05

RMM -5-17-5

Respectfully,

5.17.05

Anthony DeMaiori

President

United Steelworkers of America, Local 8031

5-17-05

Steve Trujillo

Co-Chair

Hazardous and Toxic Materials Subcommittee

SUBSCRIBED AND SWORN TO
BEFORE ME, IN THE COUNTY OF Jefferson
STATE OF COLORADO. THIS 17th DAY
OF May 2005

CLARENCE W. BUCHHOLZ, NOTARY PUBLIC
MY COMMISSION EXPIRES SEPTEMBER 23, 2008

CLARENCE W. BUCHHOLZ NOTARY PUBLIC STATE OF COLORADO

Rudy Mastelone

Co-Chair Safety Committee

Sworn to on May 17, 2005

SEC 00030

KAISER•HILL
COMPANY

May 17, 2005 05-RF-00487

Anthony Demaiori, President
United Steelworkers of America
P.O. Box 745370
Arvada, Colorado 80006-5370

TRANSMITTAL OF PAST EVENTS AT THE ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE – HEG-015-05

In response to your request, enclosed is a listing of occurrences that have occurred at the Rocky Flats Environmental Technology Site (RFETS) between 1952 to 1988. This listing is from the historical DOE occurrence reporting system.

If you have any questions or need additional assistance, please contact me at 303-966-3608.

Howard E. Gilpin, Director
Safety, Engineering and Quality Programs

HEG:rlm

Enclosure:
As Stated

SUBSCRIBED AND SWORN TO
BEFORE ME, IN THE COUNTY OF Jefferson
STATE OF COLORADO. THIS 18th DAY
OF May, 2005
CLARENCE W. BUCHHOLZ, NOTARY PUBLIC
MY COMMISSION EXPIRES SEPTEMBER 23, 2006

CLARENCE W. BUCHHOLZ NOTARY PUBLIC STATE OF COLORADO

SEC 00030

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
11/21/52		443	BOILER EXPLOSION. EXTENSIVE SHELL DAMAGE, SOME TUBE AND DRUM DAMAGE. ONE PERSON RECEIVED A BRUISED BACK AND TWO OTHER EMPLOYEES HAD MILD NERVOUS SHOCK.	
08/22/53		331	STEEL IN EYE.	
02/23/54		OUTSIDE, OFF SITE	OFF SITE PICKING UP SAMPLES. JEEP OVERTURNED.	
03/25/54		444	FIRE RUINED A PIECE OF PRODUCTION EQUIPMENT.	
06/23/54		334, CARPENTER SHOP	EMPLOYEE CUT OFF FINGERS.	
11/12/54		441	SLIPPED, HIT ELBOW ON EDGE OF DOOR.	
09/30/55		771, RM182	FIRE RESULTED FROM METAL BRIQUETTE SPONTANEOUSLY IGNITING. RADIOACTIVE MATERIAL BECAME UNCONFINED AND CONTAMINATED AREA.	
07/16/56		444, RM101	LACERATED HAND REMOVING METAL TURNINGS FROM A LATHE.	
06/14/57		707, RM146	A CHEMICAL REACTION EXPLOSION OCCURRED SHOWERING EMPLOYEES WITH GLASS OR METAL FRAGMENTS AND CONTAMINATED SOLUTION. EMPLOYEE SUFFERED MINOR LACERATION OF RIGHT TEMPLE AND LACERATED TIP OF LITTLE FINGER OF RIGHT HAND.	
09/11/57		771, RM180	FIRE AND CONTAMINATION OF ALL BLDG. 771. BURNING PLASTIC RELEASED HYDROGEN WHICH RESULTED IN AN EXPLOSION IN THE BUILDING EXHAUST DUCTS AND FIRE IN THE MAIN PLENUM.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
09/16/57		444	COLLAR CUT OFF OF A PART AND LEFT ON LATHE. ATTEMPTED TO ADJUST MACHINE, END OF FINGER CUT OFF.	
01/03/58		444, RM105	FIRE IN PORTABLE WET VACUUM AND MOTOR.	
01/17/58		776, RM134	PU IGNITION.	
03/10/58		447	CHIP FIRE.	
05/29/58		776, RM134	CHIP FIRE.	
06/09/58		771, RM159	ELECTRICAL FIRE.	
06/20/58		771, RM147	ELECTRICAL FIRE.	
07/01/58		776, RM134	SKULL FIRE.	
07/01/58		776, RM134	CHIP FIRE.	
07/07/58		771, RM149	RAG FIRE INSIDE SKULL BOX.	
07/08/58		447, RM105	CHIP FIRE IN CRUSHER.	
07/21/58		771, RM146	METAL FIRE INSIDE K-4 FURNACE.	
07/29/58		447, RM103	ELECTRICAL FIRE IN CONTROL PANEL.	
08/06/58		777, RM136	THERMOCOUPLE STUCK, CAUSING TEMPERATURE RISE, IGNITING OUTSIDE MATERIAL ON A-66 UNIT.	
08/29/58		447, RM107	CHIP FIRE.	
09/08/58		447, RM101	CHIP FIRE INSIDE BARREL.	
10/07/58		OUTSIDE	COMBUSTIBLE TRASH IGNITION INSIDE INCINERATOR.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
10/10/58		776, RM201	ELECTRICAL CONTROL PANEL FIRE.	
10/17/58		OUTSIDE	COMBUSTIBLE TRASH IN DUMPSTER IGNITED.	
10/22/58		447, RM31	OVERHEAT CONDITION IN MAIN EXHAUST PLENUMS.	
11/11/58		OUTSIDE	VEHICLE FIRE.	
11/14/58		447, RM31	TWO FILTERS WERE SMOULDERING.	
11/24/58		OUTSIDE	COMBUSTIBLE TRASH FIRE.	
12/09/58		881, RM296	CHIP FIRE IN LATHE.	
12/29/58		444	FIRE IN OXIDE COLLECTOR.	
01/06/59		771, RM149	COMBUSTIBLE MATERIAL IGNITION INSIDE PRECIPITATOR BOX.	
01/24/59		771, RM148	METAL FIRE.	
01/28/59		881, RM235	SPONTANEOUS COMBUSTION OF NITRIC ACID AND RUBBER INSIDE METAL DRUM.	
02/13/59		444, RM101	CHIP FIRE IN LATHE.	
02/19/59		447, RM105	CHIP FIRE IN CRUSHER - BRIQUETTING.	
02/24/59		771, RM149	CHIP FIRE.	
02/26/59		771, RM152	FLAMMABLE LIQUID IGNITION.	
03/03/59		447, RM106	MATERIAL INSIDE PIPE IGNITED AS A RESULT OF MAINTENANCE CUTTING OPERATION.	
03/14/59		777, RM147	FILM DRYER SMOKING.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
05/26/59		771, RM148	ELECTRICAL FIRE.	
05/26/59		771, RM187	WELDERS CAUSED COMBUSTIBLE MATERIAL TO IGNITE.	
06/09/59		881, RM256	METAL FIRE.	
06/09/59		881, RM256	METAL FIRE.	
07/29/59		331	SAWDUST FIRE.	
07/30/59		776, RM134	METAL FIRE.	
09/08/59		771, RM 247	CATALYTIC DECOMPOSITION OF PEROXIDE IN AN INSULATED STORAGE TANK. CATALYST IN THE FORM OF NEOPRENE GASKET MATERIAL PROBABLY INTRODUCED THROUGH FAULTY VALVE OR PIPING.	
09/17/59		776, RM134	SPLINTER OF RADIOACTIVE MATERIAL IN FINGER. LATER CREATED NODULE THAT HAD TO BE EXCISED.	
09/18/59		111, RM215	MOTOR FIRE INSIDE IBM MACHINE.	
10/01/59		771, RM148	SPARK INSIDE SKULL BOX IGNITED PAINT.	
10/16/59		771, RM156	CHIP FIRE.	
12/03/59		444, RM101	CHIP FIRE INSIDE BARREL.	
12/15/59		444, RM113	METAL FIRE.	
01/05/60		776, RM134	CHIP FIRE IN HYDROFORM PRESS.	
01/06/60		444, RM101	CHIP FIRE IN BARREL.	
01/14/60		881, RM233	COMBUSTIBLE WASTE IGNITION.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
01/25/60		444, BASEMENT	IGNITION OF GREASE AND COMBUSTIBLE MATERIAL.	
01/29/60		444	FIRE IN MOTOR GENERATOR.	
03/08/60		444, RM107	BRIQUETTE ON FIRE.	
05/04/60		447, RM201	FIRE IN HOUSE VACUUM.	
06/05/60		776, RM134	OVERHEATED CAN OF MATERIAL.	
06/06/60		444, RM101	CHIP FIRE IN BARREL.	
06/17/60		776, RM134	OVERHEATED MATERIAL IN CAN.	
06/22/60		995, EAST OF BLDG.	GRASS FIRE.	
06/22/60		OUTSIDE	COMBUSTIBLE TRASH INCINERATOR.	
06/23/60		777, EAST OF BLDG.	GRASS FIRE.	
07/12/60		881, RM257	CHIP FIRE.	
07/17/60		776, RM134	CHIP FIRE.	
07/25/60		776, RM134	OVERHEATED PU CHIPS.	
07/29/60		OUTSIDE	GRASS FIRE.	
08/17/60		444, RM101	CHIP FIRE INSIDE BARREL.	
08/22/60		771, RM180	HOT METAL CAUSED IGNITION OF FILTER.	
10/19/60		447, RM105	CHIP FIRE IN CRUSHER.	
10/19/60		447, RM105	CHIP AND BRIQUETTE FIRE IN BARREL.	
10/31/60		771, RM180	PU IGNITION.	
11/03/60		776, RM134	SKULL FIRE.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
11/22/60		776, RM134	CHIP FIRE IN BRIQUETTING PRESS.	
12/06/60		776, RM134	OVERHEATED CAN OF CHIPS.	
12/09/60		OUTSIDE	BACK SEAT OF CAR ON FIRE.	
12/17/60		444, RM101	CHIP FIRE INSIDE BARREL.	
12/17/60		551	ELECTRICAL FIRE IN DRINKING FOUNTAIN.	
12/20/60		776, RM134	METAL SCRAP IGNITION.	
12/21/60		771, RM148	OVERHEATED HOT PLATE CAUSED IGNITION OF MATERIAL.	
12/22/60		776, RM228	ELECTRICAL FIRE IN TRANSFER UNIT.	
12/24/60		776, RM134	CHIP FIRE IN BRIQUETTING PRESS.	
01/13/61		444, RM203	CHIP FIRE.	
01/18/61		444, RM101	CHIP FIRE IN TAP MACHINE.	
01/19/61		771, RM149	SPARKS IGNITED RAGS.	
01/23/61		881, RM224	CHIP FIRE.	
01/30/61		444, RM101	CHIP FIRE.	
02/03/61		444, RM101	CHIP FIRE.	
02/16/61		444, RM101	CHIP FIRE.	
02/20/61		776, RM134	CHIP FIRE.	
02/20/61		OUTSIDE	ELECTRICAL FIRE.	
02/22/61		447, RM201	CHIP FIRE.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
02/23/61		444, RM101	CHIP FIRE.	
02/24/61		444, RM101	CHIP FIRE.	
03/14/61		771, RM166	ALCOHOL IGNITION.	
04/30/61		441, RM117	MATERIAL IN GLASS CONTAINER, UNDER EXPERIMENT, IGNITED.	
05/05/61		776, RM134	CHIP FIRE.	
05/08/61		444, RM101	PLASTIC ATTACHED TO LATHE IGNITED.	
05/13/61		776, RM134	SKULL FIRE.	
05/17/61		444, RM101	CHIP FIRE INSIDE BARREL.	
06/08/61		881, RM252	CHIP FIRE.	
06/13/61		776, RM134	CHIP FIRE IN LATHE.	
06/21/61		776, RM134	METAL FIRE INSIDE CONTAINER.	
07/04/61		776, RM134	CHIP FIRE.	
07/04/61		776, RM134	CHIP FIRE.	
07/08/61		444, RM101	CHIP FIRE INSIDE BARREL.	
07/09/61		776, RM134	MATERIAL BURNING IN GLOVE BOX.	
07/10/61		776, RM134	METAL FIRE.	
07/12/61		776, RM134	CHIP FIRE - BRIQUETTING.	
07/21/61		776, RM134	METAL FIRE - FURNACE.	
07/21/61		776, RM134	METAL FIRE - FURNACE.	
07/22/61		776, RM134	CHIP FIRE - FURNACE.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
07/25/61		776, RM134	CHIP FIRE.	
07/27/61		776, RM134	CHIP FIRE - BRIQUETTING.	
08/06/61		776, RM134	SKULL FIRE.	
08/06/61		776, RM134	OVERHEATED MATERIAL.	
08/08/61		776, RM134	OVERHEATED MATERIAL.	
08/17/61		444, RM101	CHIP FIRE INSIDE BARREL.	
08/17/61		444, RM101	CHIP FIRE INSIDE BARREL.	
08/21/61		444, VACUUM FURNACE #6	EXPLOSION OF HYDROGEN GAS PROBABLY GENERATED FROM WET BRIQUETTES WHEN AIR WAS ADMITTED TO THE FURNACE.	
[illegible]/24/61		444, RM205	FIRE IN PLATING FURNACE.	
08/24/61		776, RM134	SKULL FIRE - FURNACE.	
08/30/61		777, RM152	SMALL MOTOR FIRE.	
09/05/61		776, RM134	OVERHEATED MATERIAL.	
09/06/61		771, RM166	IGNITION OF FILINGS.	
09/06/61		776, RM134	SKULL FIRE.	
09/13/61		776, RM134	TRANSFER MATERIAL IGNITION.	
09/14/61		447, RM201	CHIP FIRE IN BARREL.	
10/06/61		447, RM105	CHIP FIRE INSIDE BARREL.	
10/13/61		776, RM134	PU IGNITION.	
10/25/61		771	BOILER EXPLODED WHILE IT WAS BEING LIT OFF.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
10/26/61		776, RM134	BRIQUETTE IGNITION.	
11/09/61		881, RM244	CHIP FIRE IN LATHE.	
11/17/61		776, RM134	MATERIAL IGNITION - BRIQUETTING.	
12/06/61		776, RM134	CHIP FIRE.	
12/15/61		771, RM147	ELECTRICAL FIRE IN TRANSFORMER.	
12/28/61		776, RM224	EXHAUST LINE FOR COMPRESSED AIR IGNITED.	
01/05/62		334	LIFTING WELDER ONTO TRUCK WITHOUT HELP. SPRAINED BACK.	
01/05/62		776, RM134	SKULL BURNING INSIDE CAN.	
02/08/62		776, RM134	CHIP FIRE.	
02/10/62		444, 445	COVERED WALKWAY BETWEEN TWO BUILDINGS OVER RAIL TRACKS. D&RGW TRAIN BACKED INTO COVER WALKWAY.	
02/14/62		OUTSIDE	COMBUSTIBLE TRASH IN BACK OF PICKUP IGNITED.	
03/14/62		776, RM134	ELECTRICAL SHORT CAUSED CHIPS AND INSULATION TO IGNITE.	
03/15/62		OUTSIDE	WIRE AND OIL UNDER HOOD BURNING.	
04/09/62		776, RM134	METAL FIRE.	
04/16/62		444, RM101	CHIP AND OIL FIRE.	
05/10/62		444	ELECTRICAL SHORT IN CONTROL PANEL.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
05/12/62		444, RM101	CHIP FIRE.	
05/16/62		771, RM180	CHIP AND OIL FIRE.	
05/18/62		771, RM166	ACETONE IGNITION OUTSIDE BOX.	
05/29/62		771, RM148	METAL EXPLOSION IN FURNACE.	
06/05/62		771, RM148	EXPLOSION IN K-FURNACE.	
06/05/62		883, TUNNEL	WELDER CUTTING UP METAL CAUSED OIL TO IGNITE.	
06/25/62		444, RM109A	FILTER UNIT ON FIRE, CAUSED BY WELDERS.	
07/06/62		444, RM101	CHIP FIRE.	
07/10/62		444, RM109	CONTROL PANEL FOR FURNACE HEATED UP.	
07/12/62		OUTSIDE	WEED FIRE.	
07/13/62		776, LAUNDRY	FIRE IN STARTER BOX NO. 3 DRYER.	
07/19/62		444, RM101	CHIP FIRE IN LATHE.	
09/07/62		771, RM149	CHIP FIRE - IGNITION CAUSED BY WELDERS.	
09/15/62		776, RM134	CHIP AND COMBUSTIBLE TRASH FIRE.	
09/19/62		771, HALLWAY	SPONTANEOUS COMBUSTION RUBBER GLOVES AND NITRIC ACID.	
10/08/62		771, RM149	CHIP FIRE.	
10/17/62		447, RM105	CHIP FIRE - BRIQUETTING.	
10/22/62		776, RM134	CHIP FIRE - BRIQUETTING.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
10/22/62		883, RM109	FELT PAD ON FIRE - "A" PRESS.	
11/10/62		771, RM148	ELECTRICAL - TRANSFORMER TO LATHE ON FIRE.	
11/22/62		444, RM110	FIRE IN PLATING TANK.	
12/04/62		771, RM204	COMBUSTIBLE TRASH BEING BURNED IN INCINERATOR CAUSED IGNITION OF PLENUM.	
12/07/62		771, RM146	FIRE WAS CAUSED DUE TO INADEQUATE SEAL BETWEEN THE FURNACE TOP PLATE AND THE REDUCTION VESSEL. THE INADEQUATE SEAL RESULTED WHEN A GASKET FROM A PREVIOUS REDUCTION STUCK IN THE FURNACE CAUSING SECOND GASKET TO COOK DURING THE VESSEL INSERTION INTO THE	FURNACE.
01/10/63		771, RM146	FIRE AND CONTAMINATION HAPPENED WHEN THE GASKET ON THE REDUCTION VESSEL FAILED CAUSING MOLTEN METAL TO BE EJECTED FROM IT, AND PRESSURIZED THE GLOVEBOX LINE AND FAILURE OF THE GLOVES.	
01/11/63		776, RM134	FIRE IN ROLLING MILL.	
01/18/63		771, RM148	GASKET FAILURE IN K-FURNACE.	
01/18/63		771, RM148	PAINT IGNITED - CAUSED BY WELDERS.	
01/21/63		881, RM152	URANIUM FIRE INSIDE BEAKER.	
01/24/63		771, RM148	OIL FIRE IN K-FURNACE.	
01/24/63		771, RM148	GASKET FAILURE IN K-FURNACE.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
02/01/63		444, RM109	FIRE IN BUS-BAR IN NO. 1 FURNACE.	
02/05/63		UNKNOWN	CONTAMINATED FLUSHING WATER RAN OUT OF BROKEN PIPELINE ONTO FLOOR.	
02/09/63		776, RM134, BOX 823	CONTAMINATED CARBON TETRACHLORIDE BACKED UP IN GLOVE BOX. GLOVE RUPTURED - SPILLING CONTENTS ON FLOOR. WRONG TYPE VALVE HAD BEEN INSTALLED.	
02/09/63		UNKNOWN	WASTE BAG BECAME LOOSE AND FELL TO FLOOR CONTAMINATING ROOM.	
02/11/63		771, RM148	GASKET FAILURE IN K-FURNACE.	
02/14/63		777, NE CORNER	WELDER CAUSED PLASTIC SHEET TO IGNITE.	
02/18/63		771, RM148	PLASTIC FELL OFF DRYER INTO TROUGH DISSOLVER, CAUSING IT TO IGNITE.	
02/19/63		UNKNOWN	FIRE IN DRYBOX, CONTAMINATION DUE TO COOLING UNDERSIDE WITH CO2.	
02/21/63		777, STOREROOM	CHARGER ON BATTERY POWERED EMERGENCY LIGHT UNIT SHORTED.	
02/26/63		777, RM130	WELDER CUTTING ON GLOVEBOX CAUSED COMBUSTIBLES TO IGNITE.	
02/28/63		881, RM228	METAL AND ACETONE IGNITION.	
03/01/63		771, RM180	CHIP FIRE.	
03/09/63		444, RM101	PLASTIC CURTAIN ATTACHED TO LATHE BURNED.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
03/15/63		OUTSIDE	ELECTRICAL SHORT IN SUBSTATION 55 CAUSED OIL TO IGNITE.	
03/16/63		UNKNOWN	TOPS OF TWELVE OFFICE TABLES WERE BLOWN OFF DOCK AND RECEIVED MINOR DAMAGE.	
03/19/63		776, COMPRESSURE HOUSE	BROKEN CRANKSHAFT AND BLOCK ON WAUKESHA ENGINE.	
03/19/63		UNKNOWN	DROPPED SCREW MACHINE WHILE MOVING.	
03/22/63		447, RM202	FIRE IN DUCT AND OUTSIDE CHIP INCINERATOR.	
03/25/63		771, RM149	METAL FIRE IN SKULL BOX.	
03/26/63		663, OUTSIDE	LEAKING WASTE DRUM CONTAMINATED AREA.	
03/27/63		771, RM114	LIGHTING BALLEST ON FIRE.	
03/27/63		776, LAUNDRY	ELECTRICAL FIRE ON RELAY COIL TO NO.1 DRYER.	
04/01/63		771, RM240	COMBUSTIBLE TRASH BEING BURNED IN INCINERATOR CAUSED IGNITION OF FILTERS IN PLENUM.	
04/23/63		334	A CRATE OF LEAD GLASS WAS DROPPED.	
04/23/63		771, RM181	CONTAMINATED NITRIC ACID SPILL.	
05/01/63		444, RM146	MAGNESIUM FIRE.	
05/07/63		OUTSIDE	MOTOR FIRE.	
05/10/63		UNKNOWN	CONDENSING VAPORS CAUSED VENT TO COLLAPSE.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
05/17/63		771, RM148	GASKET FAILURE IN K-FURNACE.	
05/17/63		771, RM148	REDUCTION FURNACE GASKET FAILED CAUSING DAMAGE TO FURNACE HEATING COIL AND BLOCK VALVE.	
05/23/63		444, RM205	LITHIUM FIRE.	
05/27/63		444, RM205	FIRE, TO VOLATIZE SUPERNATANT NAPTHAMETHYLENE CHLORIDE SOLUTION, AN ELECTRIC HOT PLATE WAS BEING USED. THE HOT PLATE WAS TURNED OFF AND AN ARC IN THE SWITCH IGNITED THE VAPORS.	
06/20/63		771, RM147	PIN HOLE LEAK IN STAINLESS STEEL LINE OVER FALSE CEILING, LINE CARRIES HIGH PU SOLUTION. HOLE CAUSED BY CHEMICAL REACTION.	
07/10/63		776	ELECTRICIAN STRUCK SCREWDRIVER IN FINGER. SEVERED TENDON.	
07/14/63		771, RM149	METAL FIRE.	
07/15/63		444, RM205	LITHIUM CHIP FIRE.	
07/15/63		444, RM105	CHIP FIRE IN CENTRIFUGE BASKET.	
07/19/63		771	A CRACKED ELECTRODE CAUSED A HOLE TO BE BURNED INTO THE MOLD WELL OF THE FURNACE FLOODING THE FURNACE WITH COOLING WATER.	
07/20/63		776, RM134	CHIP FIRE IN BRIQUETTING.	
09/03/63		334	A BENZOIC ACID CELL BROKE WHEN IT HIT AGAINST BENCH.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
09/04/63		662, SE OF BUILDING	WHILE LOADING GRAVEL, THE LEFT TOGGLE ARM PIVOT BUSHING BROKE, THE LOAD DROPPED BREAKING THE LEFT LIFTING ARM OF THE LOADER.	
09/05/63		447, RM105	CHIP FIRE IN CRUSHER.	
09/07/63		444, RM146	CHIP FIRE IN LATHE.	
09/12/63		881	EXCESSIVE PRESSURE ON GAGE CLAMP BROKE MCLEOD GAGE.	
09/14/63		881	BOLT PULLED OUT OF LEAD COUNTERWEIGHT ON SHEFFIELD GAGE. DAMAGE TO "V" TRACK AND MICROMETER BRACKET.	
09/16/63		447, RM105	CHIP FIRE IN BRIQUETTING.	
09/17/63		663	WASTE DRUM LEAKED, CONTAMINATING FORK TRUCK PANEL TRUCK AND SEMI-TRAILER.	
09/17/63		771, RM149	RAG AND GLOVE FIRE IN DISSOLVER BOX.	
09/17/63		776, RM134	CHIP FIRE IN BRIQUETTING.	
09/19/63		771, RM188	A HANGDOWN TUBE FROM A THERMO MICROBALANCE FELL AND BROKE SPREADING CONTAMINATION.	
09/19/63		776, RM134	CHIP FIRE IN PRESS.	
09/20/63		776, RM134	CHIP FIRE.	
10/02/63		771, RM180	EMPLOYEE BROKE TYGON DITE TUBE WITH PORTABLE LADDER HE WAS MOVING.	
10/07/63		112, RM101	GREASE FIRE IN OVEN.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
10/07/63		771, RM148	GASKET FAILURE IN K-FURNACE.	
10/08/63		771, RM146	FIRE IN K-FURNACE.	
10/08/63		771, RM148	FIRE IN K-FURNACE DUE TO GASKET FAILURE.	
10/26/63		991	ELECTRICAL SHORT IN HIGH TEMPERATURE LIMIT CONTROL.	
10/29/63		776, RM152	AIR BORNE CONTAMINATION WHILE CLEANING PLATING MACHINE.	
11/08/63		771, RM148,149,165	CROSS CONNECTION VALVE BETWEEN NITRIC ACID SUPPLY LINE AND THE DISTILLED WATER SYSTEM WAS LEFT OPEN AND ACID MIGRATED INTO THE DISTILLED WATER SYSTEM.	
11/18/63		771, RM148	GASKET FAILURE RESULTING IN FIRE.	
11/20/63		771, RM148	GASKET FAILURE IN K-FURNACE.	
12/07/63		776	TWO PINS SHEARED OFF ON LATHE TABLE AND DAMAGED ADJUSTABLE ARBOR AND SPINDLE. EMPLOYEE ERROR WAS CAUSE.	
12/20/63		771, RM240	BURNING TRASH IN INCINERATOR CAUSED FILTER PLENUM TO IGNITE.	
12/22/63		771, PARKING LOT	EMPLOYEE SLIPPED ON ICE - SPRAINED BACK.	
12/30/63		881, RM121	NITRIC ACID WAS BEING USED TO LEACH OUT VACUUM LINE. THE ACID DISSOLVED THROUGH BODY OF 2" NICKEL VALVE CAUSING SPILL. AREA WAS CONTAMINATED BY SPILL.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
01/07/64		771, HALLWAY	A HOLE WAS NOTICED IN A CONTAMINATED WASTE BAG AND WAS IMMEDIATLY TAPED SHUT. THE BAG WAS MOVED DOWN THE HALLWAY TO BE CHECKED ON A COUNTER, THUS SPREADING CONTAMINATION IN THE HALLWAY.	
01/10/64		776, TAPE MACHINE 748	SERVO VALVE STUCK CAUSING MACHINE TO RUN AWAY AND DO IRREPAIRABLE DAMAGE TO ADJUSTIBLE ARBOR.	
01/13/64		776, TAPE MACHINE 739	WHEN THE TOOL SLIDE CEASED TO MOVE THE WORK SLIDE CONTINUED CUTTING A HOLE THROUGH PART AND INTO THE POT CHUCK.	
01/21/64		771, RM180	CHIP FIRE	
01/22/64		771, RM180	PU EXPLOSION	
01/24/64		771, R&D CERAMICS LAB	WHEN FURNACE POWWER WAS INCREASED TO 1/2 MAXIMUM CAPACITY, THE COPPER ELECTRODE HOLDER WAS CONSUMED BY HIGH TEMPERATURE, RELEASING A SMALL AMOUNT OF CONTAMINATED COOLING WATER.	
01/28/64		771, RM240	BURNING OF COMBUSTIBLES IN INCINERATOR CAUSED FILTERS IN PLENUM TO IGNITE	
02/04/64		771, RM237	WELDER CUTTING PIPE CAUSED PAPER WIPES TO IGNITE	
02/04/64		771	IGNITION OF SOOT ACCUMULATION ON FACE OF OF FIRST STAGE FILTERS IN THE INCINERATOR FILTER PLENUM.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
02/10/64		771, RM159,160	AN ATTEMPT TO FREE A PLUGGED VACUUM LINE WITH WATER RESULTED IN THE RELEASE OF CONTAMINATED WATER THROUGH A PIN HOLE IN THE LINE.	
02/14/64		444, RM109A	CHIP FIRE IN BERYLLIUM	
02/17/64		771, RM180	CHIP FIRE	
02/19/64		771, RM155, 159, 160	EMPLOYEE CARRYING A LEAKING SAMPLE CARTON OF PU FLOURIDE.	
02/22/64		776, RM134	OIL FIRE IN PIT UNDER PRESS	
03/17/64		771, RM187	HEAT FROM REACTION CRACKED REACTOR TUBE ALLOWING HOT PU HYDRIDE TO BECOME EXPOSED TO AIR AND BURN.	
03/25/64		444, PRECISION SHOP	GRINDER BROKE, PIECES PENETRATED ARM.	
03/26/64		776, COMPRESSURE HOUSE	BROKEN CONNECTING ROD CAUSED A PIECE OF METAL TO GO THROUGH HOUSING.	
04/05/64		771, RM166	TWO 4 LITER BOTTLES OF LIQUID SALVAGE LEAKED.	
04/08/64		776, RM134	FIRE INSIDE CLEANING SOLUTION LINE AS RESULT OF WELDERS CUTTING PIPE	
04/11/64		771, RM148	GASKET FAILURE K-FURNACE	
04/14/64		331, RM114	URANIUM CHIPS IGNITED IN HACKSAW	
04/14/64		334	A PIECE OF HERCULITE TEMPERED PLATE GLASS EXPLODED WHILE IT WAS BEING TRANSPORTED BY HAND.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
04/15/64		444, RM101	CHIP FIRE INSIDE BARREL	
04/16/64		777, RM130	WELDER ON ROOF CAUSED WOODEN FILLER TO IGNITE	
04/20/64		771, RM160	PU CHIP FIRE	
04/23/64		OUTSIDE	CARBURETOR FIRE	
04/24/64		771, RM149	SLUDGE ON FIRE IN SKULL BOX	
04/28/64		771, RM149	FIRE IN "TROUGH" BOX	
05/05/64		551, EAST DOCK	COMBUSTIBLE MATERIAL ON FIRE	
05/05/64		771	POTABLE WATER BACKED UP IN COMPRESSED AIR LINES BECAUSE VALVE WAS LEFT OPEN.	
5/08/64		776, RM142	ELECTRICAL SHORT ON ELEVATOR	
06/06/64		444, RM201	CHIP FIRE IN LATHE	
06/12/64		776, RM134	EXPLOSION IN DEGREASER	
06/12/64		776, DRYBOX 25	A SPARK WAS NOTICED IN BASKET OF CHIPS. WHILE ATTEMPTING TO MOVE BASKET INTO POSITION FOR EXTINGUISHMENT, BASKET SLIPPED OUT OF HANDS AND FELL INTO PAN OF CARBON TETRACHLORIDE.	
06/18/64		771, RM149	FIRE IN SLUDGE BOX	
06/24/64		771, HALLWAY	PARTIAL COLLAPSE OF FALSE CEILING.	
06/25/64		771, RM149	OPEN VALVE ALLOWED ESCAPE OF CONTAMINATED ACID.	
07/01/64		447, RM105	CHIP FIRE IN BRIQUETTING	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
07/03/64		771, RM166	EMPLOYEE DROPPED SAMPLE VIAL HE WAS CARRYING, WHEN HE BUMPED HIS ARM ON GLOVEBOX.	
07/15/64		771, RM146	HYDROFLOURIC ACID SOLUTION WAS PUMPED INTO AMMONIA SOLUTION STORAGE TANKS BY MISTAKE AS THE ACID DRUM LABEL HAD WEATHERED AWAY.	
07/24/64		334, RM114	CONSTRUCTION ACETYLENE CYLINDER IGNITED	
07/28/64		776	EMPLOYEE DID NOT MONITOR HIMSELF AFTER COMING OUT OF GLOVES. CONTAMINATED OTHER GLOVES AND FLOOR AREA.	
08/17/64		771, RM153	CHIP FIRE	
08/21/64		444, RM101	CHIP FIRE IN BARREL	
08/21/64		444, RM101	CHIP FIRE IN LATHE	
09/06/64		776, RM134	CHIP FIRE IN CAN	
09/09/64		776, RM1	AN OPENED VALVE ON CENTRIFUGE TANKS RELEASED CONTAMINATED CARBON TETRACHLORIDE INTO ROOM.	
09/18/64		771, RM157	ELECTRICAL SHORT IN VACUUM POT IGNITED WIRING	
09/19/64		771, RM147	FIRE IN ELECTRICAL TRANSFORMER TO AJAX CONVERTER	
09/25/64		771, RM180A	SHIPPING CONTAINER HOLDING 5G OF AM EXPLODED. NO INJURIES (TIME 7:41 A.M.). CONTAMINATED ROOM 180 AND 180A. LOSS 2.5G AM. CAUSE UNKOWN. COULD BE CHEMICAL EXPLOSION OR SLOW PRESSURE BUILD-UP.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
09/26/64		771, RM180A	EXPLOSION INSIDE SHIPPING CONTAINER	
10/01/64		551	A 2200 LB POWER SUPPLY WAS PICKED UP FROM WAREHOUSE WITH A FORK TRUCK. AFTER FORK TRUCK BACKED UP TO LEVEL GROUND AND STARTED TO LET UNIT DOWN, IT WAS ABOUT 8" HIGH AND UNIT TIPPED OVER. CAUSE WAS A BROKEN PALLET STICKING OUT BELOW FORKS, AND UNIT	WAS NOT TIED DOWN TO TRUCK.
10/05/64		OUTSIDE	COMBUSTIBLE TRASH	
10/12/64		334, RM117	ELECTRICAL FIRE IN WELDING MACHING	
10/13/64		776, RM134	CHIP FIRE	
10/20/64		771, RM148	GASKET FAILURE K-FURNACE	
10/26/64		776, RM134	CHIP FIRE	
11/02/64		771, RM149	CHIP FIRE IN TROUGH BOX.	
11/05/64		125, RM108	DUNHAM-BUSH UNIT CAUSED FILTER TO IGNITE.	
11/16/64		771, RM149	SMALL CHIP FIRE.	
12/10/64		OUTSIDE	VEHICLE FIRE.	
12/11/64		447, RM502	CHIP FIRE IN BARREL.	
12/15/64		111, RM231	COMBUSTIBLE TRASH IN BASKET.	
12/15/64		551, EAST OF BLDG.	WIND DESTROYED AIR INFLATED STRUCTURE.	
12/16/64		776	TWELVE PREHEAT COILS FROZEN.	

SUMMARY OF EVENTS
1952 TO 1988

EVENT DATE	EVENT NUMBER	BUILDING	DESCRIPTION	ADDITIONAL NOTES
12/17/64		771, RM149	CHIP FIRE IN GRAPHITE BOX.	
12/17/64		771, RM148	ELECTRICAL ARC IN K-FURNACE IGNITED PAPER WIPES.	
12/23/64		777	WIND BLEW OFF RADIOGRAPHY ROOF.	
12/24/64		776, RM134	CHIP FIRE IN CAN.	
12/27/64		444	WIND BLEW DISPATCH OVEN CONTROL PANEL OVER.	
01/28/65		771, RM149	SLUDGE IGNITED	
02/20/65		776, RM134	EMPLOYEE CUT HAND ON PLUTONIUM PART WHILE FIGHTING A PLUTONIUM CHIP FIRE INSIDE THE LATHE GLOVEBOX.	
02/24/65		444, RM232	CUTTINGS IGNITED ON POWER HACKSAW	
03/03/65		771, RM181	SLUDGE IGNITED	
03/05/65		771, RM149	WELDING SPARKS FROM OVERHEAD WORK IGNITED FRESH PAINT MATERIAL ON FLOOR	
03/08/65		771, RM149	MATERIAL IN "TROUGH" BOX IGNITED	
03/15/65		776, 777	PUBLIC SERVICE COMPANY POWER LOSS CAUSED TAPE MACHINE TO BECOME FAULTY AND PART HAD TO BE SCRAPPED.	
03/19/65		776, ROOM FOUNDRY	FAILURE OF DRYBOX GLOVE ALONG EDGE OF OUTER METAL GLOVE RING.	
03/25/65		771, RM149	ACID FEED LINE VALVE ACCIDENTLY OPENED.	