Chapman Valve Families for Justice

c/o Western MassCOSH, 640 Page Blvd. Ste. 104, Springfield, MA 01104
(413) 731-0760 (413) 731-6688 (fax)

August 15, 2005

SEC Petition Processing Office
Office of Compensation Analysis & Support
NIOSH
4676 Columbia Parkway, MS-C-47
Cincinnati, OH 45226

Dear Sir, Madam,

Please find enclosed a complete Special Exposure Cohort Petition for the Chapman Valve site in Indian Orchard Springfield, Massachusetts. Materials enclosed include:

- SEC Petition Form B (for three petitioners)
- Petition Text
- Attachments 1 through 5 (source material cited in the petition)

Any questions or if additional material is required can be directed to myself, or to Aaron D. Wilson, the Executive Director of Western MassCOSH, a 501 c(3) non-profit organization that assisted us in preparing the petition, at (413) 731-0760. Thank you for your attention to this important application.

Yours Truly,

Marianna M. Reale
Chair, Steering Committee
Chapman Valve Families for Justice

Special Exposure Cohort Petition
under the Energy Employees Occupational Illness Compensation Act

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

OMB Number. 0920-0639 Expires. 05/31/2007

Special Exposure Cohort Petition — Form B

Use of this form and disclosure of Social Security Number are voluntary. Failure to use this form or disclose this number will not result in the denial of any right, benefit, or privilege to which you may be entitled.

General Instructions on Completing this Form *(complete instructions are available in a separate packet)*:

Except for signatures, please **PRINT** all information clearly and neatly on the form.

Please read each of Parts A — G in this form and complete the parts appropriate to you. If there is more than one petitioner, then each petitioner should complete those sections of parts A – C of the form that apply to them. Additional copies of the first two pages of this form are provided at the end of the form for this purpose. A maximum of three petitioners is allowed.

If you need more space to provide additional information, use the continuation page provided at the end of the form and attach the completed continuation page(s) to Form B.

If you have questions about the use of this form, please call the following NIOSH toll-free phone number and request to speak to someone in the Office of Compensation Analysis and Support about an SEC petition: **1-800-356-4674.**

If you are:			
	☐ A Labor Organization,	Start at D	on Page 3
	☐ An Energy Employee (current or former),	Start at C	on Page 2
	☐ A Survivor (of a former Energy Employee),	Start at B	on Page 2
	☐ A Representative (of a current or former Energy Employee),	Start at A	on Page 1

A Representative Information — Complete Section A if you are authorized by an Employee or Survivor(s) to petition on behalf of a class.

A.1 **Are you a contact person for an organization?** ☐ Yes (Go to A.2) ☐ No (Go to A.3)

A.2 **Organization Information:**

Name of Organization

Position of Contact Person

A.3 **Name of Petition Representative:**

Mr./Mrs./Ms. First Name Middle Initial Last Name

A.4 **Address:**

Street Apt # P.O. Box

City State Zip Code

A.5 **Telephone Number:**

A.6 **Email Address:**

A.7 ☐ Check the box at left to indicate you have attached to the back of this form written authorization to petition by the survivor(s) or employee(s) indicated in Parts B or C of this form. An authorization

If you are representing a Survivor, go to Part B; if you are representing an Employee, go to Part C.

Name or Social Security Number of First Petitioner: ____

B Survivor Information — Complete Section B if you are a Survivor or representing a Survivor.

B.1 Name of Survivor:

Mr./Mrs./Ms. First Name Middle Initial Last Name

B.2 Social Security Number of Survivor:

B.3 Address of Survivor:

Street Apt # P.O. Box

City State Zip Code

B.4 Telephone Number of Survivor: ( )

B.5 Email Address of Survivor:

B.6 Relationship to Employee: ❑ Spouse ☒ Son/Daughter ❑ Parent ❑ Grandparent ❑ Grandchild

Go to Part C.

C Employee Information — Complete Section C UNLESS you are a labor organization.

C.1 Name of Employee:

Mr./Mrs./Ms. First Name Middle Initial Last Name

C.2 Former Name of Employee (e.g., maiden name/legal name change/other):

Mr./Mrs./Ms. First Name Middle Initial Last Name

C.3 Social Security Number of Employee:

C.4 Address of Employee (if living):

Street Apt # P.O. Box

City State Zip Code

C.5 Telephone Number of Employee: ( )

C.6 Email Address of Employee:

C.7 Employment Information Related to Petition:

C.7a Employee Number (if known): Location:

C.7b Dates of Employment: Start End

C.7c Employer Name: Chaping Valve Co.

C.7d Work Site Location: Indian Orchard MA 01151

C.7e Supervisor's Name.

Go to Part E.

Name or Social Security Number of First Petitioner:

Special Exposure Cohort Petition
under the Energy Employees Occupational Illness Compensation Act

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

OMB Number: 0920-0639 Expires: 05/31/2007

Special Exposure Cohort Petition — Form B

Appendix — Petitioner 2

Use of this form and disclosure of Social Security Number are voluntary. Failure to use this form or disclose this number will not result in the denial of any right, benefit, or privilege to which you may be entitled.

Use this Appendix for Petitioner 2.

This appendix form is to be used as needed. Petitioner 2, or his or her representative, should complete the parts applicable to him or her

Refer to the General Instructions on completing petitioner information for Parts A, B, or C.

If you need more space to provide additional information, use the continuation page provided at the end of the form and attach the completed continuation page(s) to Form B.

Except for signatures, please **PRINT** all information clearly and neatly on the form.

If you are:		
	☐ An Energy Employee (current or former),	Start at C
	☐ A Survivor (of a former Energy Employee),	Start at B
	☐ A Representative (of a current or former Energy Employee),	Start at A

A Representative Information — Complete Section A if you are authorized by an Employee or Survivor(s) to petition on behalf of a class.

A.1 **Are you a contact person for an organization?** ☐ Yes (Go to A.2) ☐ No (Go to A.3)

A.2 **Organization Information:**

Name of Organization

Position of Contact Person

A.3 **Name of Petition Representative:**

Mr./Mrs./Ms First Name Middle Initial Last Name

A.4 **Address:**

Street Apt # P.O. Box

City State Zip Code

A.5 **Telephone Number:** ( )

A.6 **Email Address:**

A.7 ☐ Check the box at left to indicate you have attached to the back of this form written authorization to petition by the survivor(s) or employee(s) indicated in Parts B or C of this form. An authorization form for this purpose is provided.

If you are representing a Survivor, go to Part B; if you are representing an Employee, go to Part C.

Name or Social Security Number of First Petitioner: _____

Special Exposure Cohort Petition
under the Energy Employees Occupational Illness Compensation Act

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

OMB Number: 0920-0639 Expires 05/31/2007

Special Exposure Cohort Petition — Form B

Appendix — Petitioner 2

B Survivor Information — Complete Section B if you are a Survivor or representing a Survivor.

B.1 **Name of Survivor:**

Mr./Mrs./Ms. First Name Middle Initial Last Name

B.2 **Social Security Number of Survivor:** _____

B.3 **Address of Survivor:**

Street Apt # P.O. Box

City State Zip Code

B.4 **Telephone Number of Survivor:** _____

B.5 **Email Address of Survivor:** _____

B.6 **Relationship to Employee:** ☐ Spouse ☐ Son/Daughter ☐ Parent ☐ Grandparent ☐ Grandchild

Go to Part C.

C Employee Information — Complete Section C.

C.1 **Name of Employee:**

Mr./Mrs./Ms. First Name Middle Initial Last Name

C.2 **Former Name of Employee** (e.g., maiden name/legal name change/other):

Mr./Mrs./Ms. First Name Middle Initial Last Name

C.3 **Social Security Number of Employee:** _____

C.4 **Address of Employee** (if living):

Street Apt # P.O. Box

City State Zip Code

C.5 **Telephone Number of Employee:** _____

C.6 **Email Address of Employee:** _____

C.7 **Employment Information Related to Petition:**

C.7a Employee Number (if known): _____

C.7b Dates of Employment: Start _____ End _____

C.7c Employer Name: CHAPMAN VALVE

C.7d Work Site Location: INDIAN ORCHARD, MA 01151

C.7e Supervisor's Name: _____

Sign Part G of the original petition.

Name or Social Security Number of First Petitioner: _____

Special Exposure Cohort Petition
under the Energy Employees Occupational Illness Compensation Act

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

OMB Number. 0920-0639 Expires: 05/31/2007

Special Exposure Cohort Petition — Form B

Appendix — Petitioner 3

Use of this form and disclosure of Social Security Number are voluntary. Failure to use this form or disclose this number will not result in the denial of any right, benefit, or privilege to which you may be entitled.

Use this Appendix for Petitioner 3.

This appendix form is to be used as needed. Petitioner 3, or his or her representative, should complete the parts applicable to him or her.

Refer to the General Instructions on completing petitioner information for Parts A, B, or C.

If you need more space to provide additional information, use the continuation page provided at the end of the form and attach the completed continuation page(s) to Form B.

Except for signatures, please **PRINT** all information clearly and neatly on the form.

If you are:	☐ An Energy Employee (current or former).	Start at C
	☐ A Survivor (of a former Energy Employee).	Start at B
	☐ A Representative (of a current or former Energy Employee).	Start at A

A Representative Information — Complete Section A if you are authorized by an Employee or Survivor(s) to petition on behalf of a class.

A.1 **Are you a contact person for an organization?** ☐ Yes (Go to A 2) ☐ No (Go to A.3)

A.2 **Organization Information:**

Name of Organization

Position of Contact Person

A.3 **Name of Petition Representative:**

Mr./Mrs./Ms. First Name Middle Initial Last Name

A.4 **Address:**

Street Apt # P.O Box

City State Zip Code

A 5 **Telephone Number:** ( )

A 6 **Email Address:**

A 7 ☐ Check the box at left to indicate you have attached to the back of this form written authorization to petition by the survivor(s) or employee(s) indicated in Parts B or C of this form. An authorization form for this purpose is provided.

If you are representing a Survivor, go to Part B; if you are representing an Employee, go to Part C.

Name or Social Security Number of First Petitioner: _____

Special Exposure Cohort Petition
under the Energy Employees Occupational Illness Compensation Act

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

OMB Number: 0920-0639 Expires: 05/31/2007

Special Exposure Cohort Petition — Form B

Appendix — Petitioner 3

B Survivor Information — Complete Section B if you are a Survivor or representing a Survivor.

B.1 Name of Survivor:

Mr./Mrs./Ms. First Name Middle Initial Last Name

B.2 Social Security Number of Survivor:

B.3 Address of Survivor:

Street Apt # P.O. Box

City State Zip Code

B.4 Telephone Number of Survivor: ( )

B.5 Email Address of Survivor:

B.6 Relationship to Employee: ❑ Spouse ❑ Son/Daughter ❑ Parent ❑ Grandparent ❑ Grandchild

Go to Part C.

C Employee Information — Complete Section C.

C 1 Name of Employee:

Mr./Mrs./Ms First Name Middle Initial Last Name

C.2 Former Name of Employee (e.g., maiden name/legal name change/other):

Mr./Mrs./Ms First Name Middle Initial Last Name

C.3 Social Security Number of Employee:

C.4 Address of Employee (if living):

Street Apt # P.O. Box

City State Zip Code

C.5 Telephone Number of Employee:

C.6 Email Address of Employee:

C 7 Employment Information Related to Petition:

C.7a Employee Number (if known):

C.7b Dates of Employment: Start End

C 7c Employer Name: CHAPMAN VALVE

C.7d Work Site Location: INDIAN ORCHARD, MA

C.7e Supervisor's Name:

Sign Part G of the original petition.

Name or Social Security Number of First Petitioner:

E Proposed Definition of Employee Class Covered by Petition — Complete Section E.

E.1 **Name of DOE or AWE Facility:** CHAPMAN VALVE

E.2 **Locations at the Facility relevant to this petition:**

INDIAN ORCHARD, MASSACHUSETTS

E.3 **List job titles and/or job duties of employees included in the class. In addition, you can list by name any individuals other than petitioners identified on this form who you believe should be included in this class:** SEE ATTACHED

E.4 **Employment Dates relevant to this petition:**

Start ____ End ____

Start ____ End ____ (Remediation)

Start ____ End ____

E.5 **Is the petition based on one or more unmonitored, unrecorded, or inadequately monitored or recorded exposure incidents?:** ☒ Yes ☐ No

If yes, provide the date(s) of the incident(s) and a complete description (attach additional pages as necessary):

SEE ATTACHED

Go to Part F.

Name or Social Security Number of First Petitioner: ____

F Basis for Proposing that Records and Information are Inadequate for Individual Dose — Complete Section F.

Complete **at least one** of the following entries in this section by checking the appropriate box and providing the required information related to the selection. You are not required to complete more than one entry.

F.1 ☐ I/We have attached either documents or statements provided by affidavit that indicate that radiation exposures and radiation doses potentially incurred by members of the proposed class, that relate to this petition, were not monitored, either through personal monitoring or through area monitoring.

(Attach documents and/or affidavits to the back of the petition form.)

Describe as completely as possible, to the extent it might be unclear, how the attached documentation and/or affidavit(s) indicate that potential radiation exposures were not monitored.

_____
_____
_____
_____
_____
_____
_____
_____
_____

F.2 ☐ I/ We have attached either documents or statements provided by affidavit that indicate that radiation monitoring records for members of the proposed class have been lost, falsified, or destroyed; or that there is no information regarding monitoring, source, source term, or process from the site where the employees worked.

(Attach documents and/or affidavits to the back of the petition form.)

Describe as completely as possible, to the extent it might be unclear, how the attached documentation and/or affidavit(s) indicate that radiation monitoring records for members of the proposed class have been lost, altered illegally, or destroyed.

_____
_____
_____
_____
_____
_____
_____
_____

Part F is continued on the following page.

F.3 ☐ I/We have attached a report from a health physicist or other individual with expertise in radiation dose reconstruction documenting the limitations of existing DOE or AWE records on radiation exposures at the facility, as relevant to the petition. The report specifies the basis for believing these documented limitations might prevent the completion of dose reconstructions for members of the class under 42 CFR Part 82 and related NIOSH technical implementation guidelines.

(Attach report to the back of the petition form.)

F.4 ☐ I/We have attached a scientific or technical report, issued by a government agency of the Executive Branch of Government or the General Accounting Office, the Nuclear Regulatory Commission, or the Defense Nuclear Facilities Safety Board, or published in a peer-reviewed journal, that identifies dosimetry and related information that are unavailable (due to either a lack of monitoring or the destruction or loss of records) for estimating the radiation doses of employees covered by the petition.

(Attach report to the back of the petition form.)

Go to Part G.

G Signature of Person(s) Submitting this Petition — Complete Section G.

All Petitioners should sign and date the petition. A maximum of three persons may sign the petition.

Signa

Signa

Signature Date

Notice: Any person who knowingly makes any false statement, misrepresentation, concealment of fact or any other act of fraud to obtain compensation as provided under EEOICPA or who knowingly accepts compensation to which that person is not entitled is subject to civil or administrative remedies as well as felony criminal prosecution and may, under appropriate criminal provisions, be punished by a fine or imprisonment or both. I affirm that the information provided on this form is accurate and true.

Send this form to: SEC Petition
Office of Compensation Analysis and Support
NIOSH
4676 Columbia Parkway, MS-C-47
Cincinnati, OH 45226

If there are additional petitioners, they must complete the Appendix Forms for additional petitioners. The Appendix forms are located at the end of this document.

Name or Social Security Number of First Petitioner: _____

SPECIAL EXPOSURE COHORT
CLASS PETITION
FOR
CHAPMAN VALVE
INDIAN ORCHARD, MASSACHUSETTS

E.1 Name of DOE or AWE Facility:

Chapman Valve Manufacturing Company
(later known as Crane Company)

E.2 Location at the Facility relevant to this petition:

Indian Orchard, part of the city of Springfield, Massachusetts

E.3 Covered Job Titles

Guard
Captain of Guard
Chief Inspector
Inspector
Engineer
Master Mechanic
Heat Treater Foreman
Steamfitter
Machine Repairer
Ass't to Director of Research
Foreman, Steam fitting & Plumbing maint.
General Superintendent, Machine Shops & Maint.
Electrician
Chief Electrician
Milling Machine Operator
Centerless Grinder
Portable Grinder Machinist
Chipper Machinist
Assembler
Tool Crib Machinist
Turret Lathe Operator
Janitor
Janitor, Helper
Decontamination worker
Firefighter
General Foreman

E.4 Employment Dates relevant to this petition:

1948 to 1949 DOE RE 1991 to 1995 (Remediation)

E.5 Is this petition based on one or more unmonitored, unrecorded, or inadequately monitored or recorded exposure incidents?

YES

Explanation for Question E.5—SEC Petition for Chapman Valve

The premise behind the NIOSH Chapman Valve Site Profile (Rev. 00 February 22, 2005) is that internal radiation dose can be reconstructed with a very limited amount of bioassay data, even though it is unrepresentative, and was collected without any understanding of the individual's exposure history. The Site Profile does not assess exposures from a number of industrial processes, such as the cracking furnace or the uranium chip incinerator, and does not evaluate the potential for a uranium rolling operation or the presence of low enriched uranium. Air monitoring was not available, and the single set of samples from May 1948 was unrepresentative. There was no formal health physics program at Chapman Valve in 1948-49.

Bioassay data results for the AEC's contract period from January 1949-April 1949 (uranium in urine) are available from only three dates:

1) July 26-27, 1948 (22 workers); note: all but one were collected on the 27th
2) September 8-9, 1948 (6 workers)
3) October 7, 1948 (5 workers)

Most of the bioassay results are at or below the limit of detection at that time (0.01 mg/l). The following job titles appear on the urine data sheets:

Job	# individuals sampled in that job
Guard	6
Captain of Guard	1
Chief Electrician	1
Assistant to Director of Research	3
Master Mechanic	1
Foreman Steam Fitter Main	1
Heat treater-Foreman	1
Steamfitter	1
Machine Repair	1
Electrician	1
Gen. Superintendent Machine Shop	1

Helper—Janitor	1
Foreman—Substituting	1
Inspector—HK Ferguson Co	1

September 8 and 9 sampling:

Guard	2
Chief Inspector	1
Milling Machine Operator	1
Centerless Grinder	1
Turret Lathe Operator	1

October 7 sampling

Inspector	4
Engineer	1

As NIOSH concedes in their April 22, 2005 memo to William Powers, Office of U S Representative Richard Neal, they have no documentation about why these samples were collected.

The 33 bioassays cover job titles which are non proportional to the actual jobs performed in the uranium operations, and too scant to construct a plausible coworker model for workers who milled, ground, and lathed uranium, and operated a uranium chip burner and a separate cracking furnace. They are unsuitable for establishing a plausible upper bound estimate—the criteria for determining whether it is feasible to estimate dose with sufficient accuracy under 42 CFR Part 83.

NIOSH does not assume any frequency for uranium fires in the site profile, even though documentation at other facilities shows that uranium fires are prevalent in uranium milling/lathing operations due to the fact that uranium is a pyrophoric material.

For example, only 3 of 33 bioassay samples involved the production workers who were operating a centerless grinder and a lathe, the other 30 samples covered guards (6), management, inspectors (4) and maintenance workers (5 workers) (see, Attachment 1, April 22 memo to William Powers from Anstice Brand at CDC). This memo suggests there was "cohort" sampling (a few in each job category) rather than sampling regimen based on potential radiation risk.

For these 3 bioassay samples (all taken on the same day) to serve as a plausible basis for dose reconstruction, NIOSH would need to know how long these three workers were exposed to uranium dust and smoke before the September 1948 bioassay samples were taken. The site profile does not indicate the retention time for uptakes before bioassay sampling (the amount of time between uranium exposure and bioassay samples), and the time period (hours, days, weeks or months) these 3 workers were employed in uranium milling activity. Absent this dose rate history, it cannot be determined whether the bioassay results (even assuming that solubility and

be surmised) are representative of most workers, or merely represent a single day of employment in the given task at a foundry that had numerous other operations.

There is no data and no reason to assume that bioassay samples were only taken on the days that were representative of the work environment (or the upper bound exposures) in the uranium division. For example, was the uranium chip burner operating on these days? Uranium chip burners release prolific amounts of radioactive particulate. NIOSH staff can speculate, but they have no documentation.

NIOSH/ORAU staffer Cindy Bloom was provided with a map at the February 14, 2005 meeting in Springfield, Massachusetts that was prepared by ORNL that showed the location of the chip burner (Attachment 2). It vented through a window. NIOSH did not consider this source of uranium particulate in any way in the site profile. When asked why NIOSH did not account for the chip burner, Cindy Bloom, an MJW/ORAU health physicist said "We had limited bioassay data. We used what we had." (Source: ORAU Summary of February 14, 2005 site profile meeting, pp. 5) Data was provided to Ms. Bloom on a uranium incinerator at NUMEC in Pennsylvania as reference material, but this data was not considered in the site profile.

Further, there is no basis to conclude that lathes were operating on the days when bioassay samples were taken. ORAU speculates that there must have been a reason samples were taken on a given day, but there is no work history. Lathe operations produce copious amounts of uranium smoke as the uranium chips ignite on their own. (The default 5-micron AMAD particle size used in the site profile is an inappropriate assumption for uranium smoke)

Given the paucity of information on the work history of those sampled, the residence time, the lack of adequate production and source term data, it is not plausible to develop upper bound dose estimates for uranium uptakes using the data for the 3 production workers with sufficient accuracy. NIOSH indicated that worker uptakes from uranium lathing operations could be recovered from other facilities, but they said at the February 14, 2005 meeting that there were "limited resources" to do this kind of validation work. This speaks to the feasibility of reconstruction dose.

The work history accompanying the other 30 samples for non-production and maintenance functions is not disclosed in the site profile. Yet, these 30 bioassay samples are essential to the presumption on the part of NIOSH that dose can be reconstructed and co-worker models can be used to assign dose to unmonitored workers. A helpful indicia is the percentage of workers with internal dose monitoring for each day where there was a potential exposure. Assuming there was 100 days of uranium processing, and 100 workers were employed each day in this process, then only 0.33% of the worker days were monitored.

Employees worked throughout the Chapman Valve site, and rotated in and out of the uranium division. Work histories needed to establish the duration of employment in the uranium division are non-existent. This is complicated by the fact that survivors, who constitute a majority of the claimants, cannot provide this level of work history. Without work history,

NIOSH cannot use the limited bioassay data that is available to correlate uptakes vs. bioassay results.

While there were seven workers who were monitored after a documented uranium fire in May or June of 1948 (the monitoring was in early June, but the date of the fire is unknown), the actual uranium uptakes are unknown because the dates of exposure(s) are unknown. A search of fire department records and newspaper clipping could find no record of the fire. Thus, NIOSH is unable to assign a credible dose based on bioassay (assuming it knows solubility) unless it can determine date of exposure.

The Site Profile indicates that only natural uranium (0.7% U 235) was used at Chapman Valve. It appears that, in addition to machining natural uranium, low enriched uranium was present. ORNL found 2.16% enriched uranium in a Chapman site soil survey done for an environmental clean up. The enriched uranium was found in the soils under the exhaust from the uranium chip incinerator burner.

This finding may indicate that activities took place at Chapman Valve involving enriched uranium. ORAU-MJW staffer Cindy Bloom brushed off this ORNL finding of 2.16% enriched uranium by stating, "I haven't seen any analysis to say if it is statistically significant." ORAU and NIOSH did nothing to follow up on this data. (Attachment 4) This leads one to believe that this source term information is inconvenient because it contradicts the NIOSH site profile. A NIOSH health physicist stated that this 2.16% U-235 measurement was possibly anomalous during a public meeting in Holyoke, Massachusetts in April 2005, but when the NIOSH staffer was asked if he had gone to ORNL and secured the sampling records to determine if this was a valid reading, the answer was "no." If confirmed, the presence of enriched uranium suggests there is merit to workers' anecdotal information concerning other uranium operations at Chapman. This SEC petition requests that NIOSH investigate whether additional work was done at Chapman that might have brought enriched uranium to the site.

The site profile is in error saying all uranium chips were sent off site for disposal. As documented through worker testimony and a map with a uranium chip burner, uranium chips were burned on site. This error is attributable to an inaccurate affidavit supplied by Crane Company lawyers (Crane acquired Chapman Valve) to DOE during the FUSRAP process. This over reliance on an affidavit prepared by lawyers who are liability adverse, and the failure to credit the map showing a uranium chip burner or credit the presence of enriched uranium, raises questions about how NIOSH decides what data it will accept and which it will dismiss as "anomalous" without further inquiry.

At the February 2005 site profile meeting a suggestion was made by NIOSH staff that more data may exist at Brookhaven, but no further research was planned. Claimants are unable to undertake the research necessary to recover records from Brookhaven since they lack a security clearance. This speaks to the question of feasibility.

The Chapman Valve uranium processing facility had a "cracking furnace". High radiation stack readings were measured on the roof (Attachment 5). The purpose of the cracking furnace was unknown to NIOSH, according to this site profile analysis. Its use in the production

operation is unknown to the surviving workers. There was no in-plant air monitoring data or worker dose information on the cracking furnace. This was not addressed by NIOSH in the site profile and no data apparently exists.

An AEC memo mentions the presence of uranium "rolling" work at Chapman Valve (Attachment 5). There is no documentation to verify if this took place or not.

There is only one (1) day of uranium air samples. Data was taken on 5/24/48. Data showed elevated levels of uranium in the lunchroom, and other non-production areas, raising questions about overall levels of uranium dust smoke in the facility and the absence of contamination controls. NIOSH did not use this data, as it was too limited.

Summary

There is insufficient bioassay data with which to estimate a plausible upper bound dose estimate for internal radiation exposures at Chapman Valve, and the data that does exist is not representative of the potential exposures. Production process information is too limited to characterize exposures. There is only 1 day of air monitoring data. Thus, it is not feasible to estimate dose with sufficient accuracy. Since production operations spanned 15 months, those employed at Chapman Valve during the covered time period will have been employed for 250 days. Absent a formal health physics and radiation protection program, coupled with the absence of a functional contamination control program, there is a reasonable likelihood the class of workers may have been endangered from exposure to radiation at Chapman Valve.

List of Attachments

1) April 22 memo to William Powers from Anstice Bond at CDC

2) Map that was prepared by ORNL that showed the location of the chip burner

3) ORAU Summary of February 14, 2005 site profile meeting, pp. 5

4) Excerpt of July 2002 ORNL report finding of 2.16% enriched uranium at Chapman Valve

5) An AEC memo mentions the presence of uranium "rolling" work at Chapman Valve

Attachment 1

FW: Chapman Valve

Powers, William

From: Brand, Anstice M. [atb6@cdc.gov]
Sent: Friday, April 22, 2005 11:24 AM
To: Powers, William
Subject: FW: Chapman Valve

[illegible]

[illegible]
CDC Washington Office
[illegible]

[illegible]

For the July 26 & 27 sampling [illegible]

[illegible]	[illegible]
[illegible]	[illegible]
Captain of Guard	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
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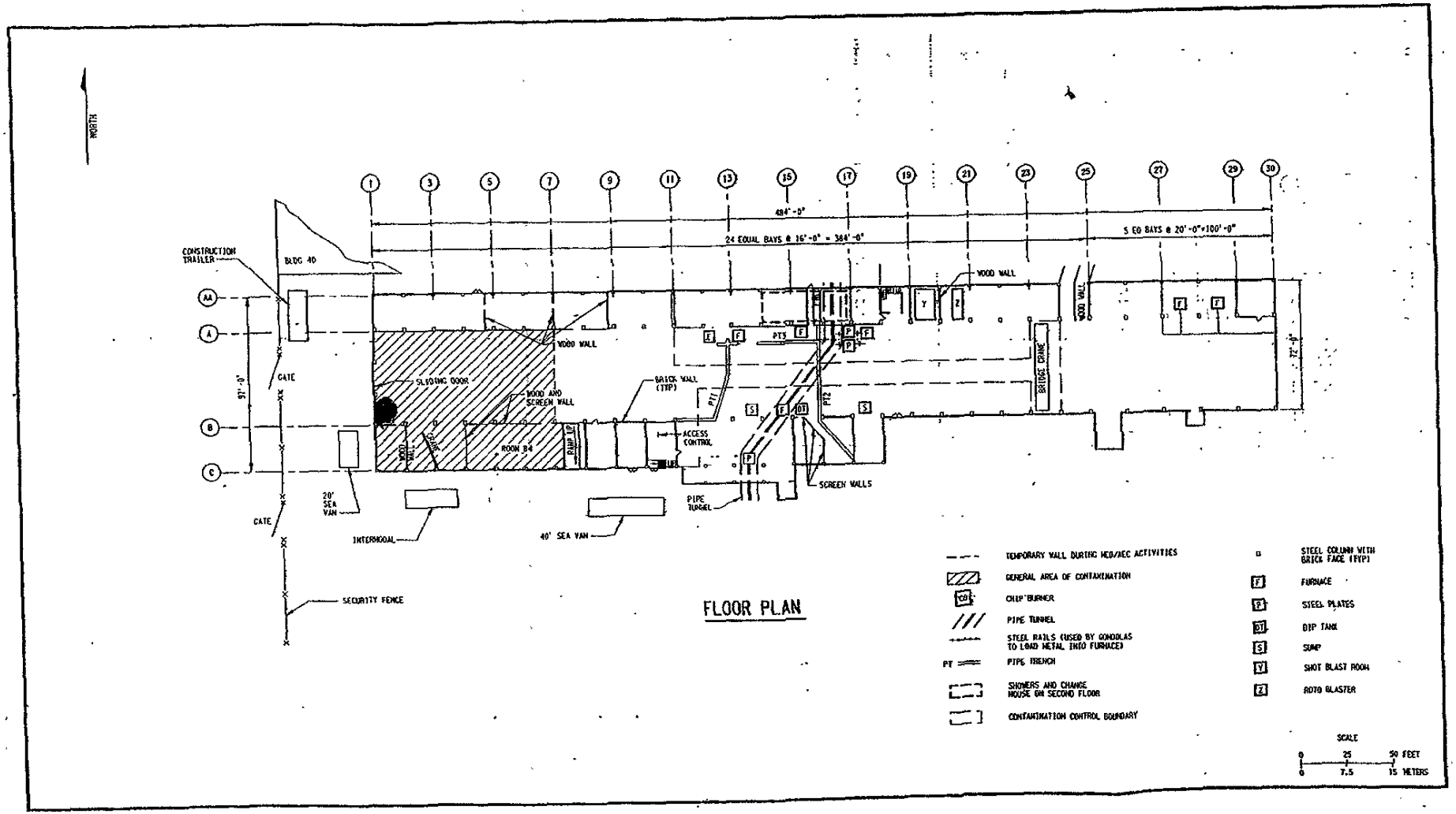
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

Chapman Valve

We don't have any documentation about why the urine samples were collected, just sheets reporting the dates collected, employee names, job titles, and urinalysis results in units of milligrams of uranium per liter. For the Sept. and Oct. samples we also have the time of day when the samples were collected. Times range from 3:30 to 4:30 P.M. The job titles sort of point to an involving program of collecting samples from the exposed population. The July samples are from guards, maintenance staff, and [illegible] types. The Sept. samples are mainly from [illegible] and the Oct. samples are mainly from inspectors. This progress in [illegible] job titles seems to sort of mirror how different job titles would become engaged in the urainium work.

To answer the question, it is true that these 33 samples were used to establish the upper limit of the [illegible] yes, sort of. We don't consider these samples to be representative of the [illegible] highly exposed workers. If that was the case we would just average the data and use the average value as [illegible] of the highly exposed workers. Instead, we consider these samples to be representative of the average worker. We do a statistical evaluation of the urine data to determine what the upper limit exposure is [illegible] to be.

Attachment 2



R76F009.DGN

Figure 2
Chapman Valve
Building 23 - Plan View

Attachment 3

Draft Minutes

NIOSH Dose Reconstruction Project Meeting On Chapman Valve Site Profile

Date:

February 14, 2005

Meeting with:

Chapman Valve Manufacturing, held at Western Massachusetts COSH office, Springfield, Massachusetts

Attendees:

Approximately 65 people in attendance, including the last vice president of United Electrical Radio Machine Workers (UE), one of the Chapman Valve unions.

Ed Pagnoni	Alfred LeMoine
Lucy Rivest	Allie Fisher
Ernest Heirsch	Diane Kubetin
Daniel J. Zalbo	Donnabelle Shaw Holch
Ellen Mislak	Eugene "Joe" Quaglini
Samuel Hie	Henderson Hines
Marianne Reale	Henry Dobek
Ellen Wilson	Isaiah Danning
Priscilla Bolden	John W. Hinson
Anthony Blazejowski	Linda Belben
Maurita Hinson Bledsoe	Nancy Fernandes
Russ Brassard	Paul Jerome
Albert Bolden, Jr.	Robert & Helen McClarty
Betty LeBoeuf	Shirley Sterling
Bob Duarte	Stanley E. Tupek

NIOSH and ORAU Team Representatives:

Mark Rolfes – National Institute of Occupational Safety and Health (NIOSH), Office of Compensation Analysis and Support (OCAS)

William Murray – Oak Ridge Associated Universities (ORAU)

Mark Lewis – Advanced Technologies Laboratories (ATL) International Inc.

Dawn Catalano – ATL International, Inc.

Cindy Bloom – MJW Corporation

Proceedings

Mr. Mark Lewis began the meeting at approximately 5:15 p.m. by thanking everyone for taking the time to attend. He stated that the purpose of the meeting was to "take a snapshot of the past," and gather their collective memories of their employment at Chapman Valve Manufacturing to add the workers' perspective to the Site Profile. He introduced the ORAU team and pointed out to the participants that the meeting was being recorded for accuracy. He asked the former

workers to introduce themselves and tell where they had worked. He then turned the meeting over to Bill Murray for the presentation.

Mr. Murray expressed his appreciation to the participants for giving the team the opportunity to learn more about the work that was done at Chapman Valve, and taking the time to share some of their work experiences. He stressed the importance of bringing forth additional information to supplement the Site Profile and giving the workers a voice in the matter.

Mr. Murray began the presentation by explaining the Energy Employees Occupational Illness Compensation Program Act (EEOICPA). He told the group that Chapman Valve Manufacturing is considered an Atomic Weapons Employer (AWE) site due to the uranium work the company performed under contract from the Manhattan Engineering District and Atomic Energy Commission. He explained that under Subtitle B of the Act, a claim can be filed by a worker who has contracted radiation-induced cancer, beryllium disease or silicosis (or the worker's survivors). The cancer claims go to the National Institute for Occupational Safety and Health (NIOSH) for radiation dose reconstruction based on records that have been provided by the contractors and government regarding operating procedures and radiation exposures that occurred at the site. He stated that NIOSH Office of Compensation Analysis and Support (OCAS) had been established to handle the dose reconstruction. Due to the high volume of claims, OCAS contracted Oak Ridge Associated Universities (ORAU) to perform dose reconstructions and related tasks including constructing Site Profiles, performing Worker Outreach, and assisting in the Special Exposure Cohorts process.

Mr. Murray stated that the purpose of the meeting was to discuss the Site Profile for Chapman Valve Manufacturing Plant. He described the Site Profile as an important document used by Health Physicists in the reconstruction of radiation doses received by workers at a specific site. The Site Profile undergoes an extensive review process. Since the Site Profile is a living document, it can be changed as new information becomes available. The Outreach Team was present at the meeting to gather information from the former workers regarding work procedures, monitoring programs, and incidents or accidents where workers were exposed to radiation.

The primary source of exposure at the Chapman Valve site occurred during 1948, when the company was under contract to machine uranium for the Atomic Energy Commission. The residual contamination exposure period was identified from 1949 and 1993 and does not include clean-up operations in 1994 and 1995. Only one incident was recorded -- a uranium fire in June 1948, but there were possibly other incidents. The primary focus for the meeting would be the machining operations in 1948 and how much contamination remained during the period from 1949 to 1993.

Cindy Bloom pointed out that the dates for exposure had been extended through April 30, 1949.

Comment:

We don't have an exact date for the fire. Do you have a document?

Cindy Bloom:

Work didn't start until May. We can't find documentation of when the fire occurred, but we used bioassay data to pinpoint it to June. From the end of May until June 11, 1948, seven employees gave samples for urinalysis.

Question:

Did someone from inside the plant put out the fire? There is no documentation at the fire department.

Cindy Bloom:

Station No. 5 responded to a fire there, but records disappeared when they moved. Something did happen in April, but that wasn't the only time they responded to calls from Chapman Valve. We are trying to get printed records from the captains. We know there were meticulous records at the time.

Mark Rolfes:

Could the firefighter give a deposition?

Response:

We haven't been able to get in touch with the firefighters.

Comment:

Firefighters didn't have air-packs back then.

Cindy Bloom:

It was a fairly localized event with little contamination. We have some of the guards' names on record, and will check with them.

Question:

Is there a cumulative effect of uranium?

Cindy Bloom:

The report has been written with the most current information available. Mr. Lee (the firefighter) may be able to shed some light.

Question:

Is putting out a uranium fire different? Does technique make a difference?

Cindy Bloom:

In 1948, they would have put out the fire any way they could. If they did not use enough water, that would have created more oxygen to feed the fire. They would have had to use lots of water to put it out.

Mr. Murray continued with the presentation, explaining that the section in the Site Profile on occupational internal dosimetry was based on information from urinalyses of some of the workers. Also, some air sampling data had been made available. Based on this information, intakes were estimated for exposure during the uranium machining and for the June uranium fire

The section of the Site Profile on occupational external dosimetry was based on data recorded from the monitoring program using film badges which measured beta and gamma radiation. Up to 50 workers were monitored per week. The badges were exchanged weekly, but badges were worn only in the restricted area. Although the reporting limit was 50 millirads, often the data is less than 50, so NIOSH will assign the dose for each reporting period.

Cindy Bloom:

They sent 50 badges at a time for analysis. A worker used one badge all week, and then it was sent to be analyzed. There is also information on the hours workers were in the control area and the reported results of the exposure.

Mr. Murray continued: NIOSH takes into consideration the occupational medical dose, assuming that employees received a chest x ray during their pre-employment physicals and one annual chest x ray thereafter. This additional exposure is added so that NIOSH considers all possible sources when calculating the dose reconstruction.

In concluding his presentation, Mr. Murray emphasized the importance of developing a viable Technical Basis Document which could be changed based on workers' input. He asked that all comments on the Chapman Valve Profile should be sent directly to NIOSH.

Discussion Session

Comment:

None of the workers had protection. They had the workers wash the machines.

Cindy Bloom:

They collected all the material they could the goal was to keep as much uranium as possible.

Comment:

The report says residues were burned and shipped off site. The map of Building 32 has a uranium chip burner.

They oxidized the churnings from the machining of the uranium. This process was used to burn the residue before shipping.

Comment:

There is no information on monitoring around the incinerator. The incinerator was vented out the windows, and it was in the same part of the building where they found 2 .16% enriched uranium. Is that consistent with 1948-49 activities?

Cindy Bloom:

I haven't seen the analysis to say if it is statistically significant.

Comment:

In a July 1992 ORNL document, there was an activity level and a citation.

Comment:

Two individuals remembered the incinerator, but one has since passed away. They mentioned uranium work during World War II. Radioactive ashes and poor ventilation (incinerator was vented out the windows) would increase the probability of higher levels of radiation. How do you determine dose?

Cindy Bloom:

We had limited bioassay data. We used what we had.

Comment:

The report should mention the chip incinerator, and there is no data verified in the ORNL report.

Question:

Do you have any information about Parker Street? A subcontractor did machining operations there.

Cindy Bloom:

A lot of AWE work was non-radioactive. They needed valves, too.

Comment:

Department 40 and Building 23, which was the building with the furnaces, both dumped product behind the old steel foundry. I don't know if it was surveyed, but in 1987-88 it was found to be contaminated.

Question:

If the Site Profile is important, why are our claims being denied?

Mark Lewis:

There could be several reasons for this: the work period could be outside the covered period; only certain cancers are covered because radiation only concentrates in specific organs, or maybe the information available doesn't produce a high enough dose. That's why we need your input – if the revised document raises the probability of causation over 50%, the claim will be opened again.

Cindy Bloom:

We attempt to expedite claims, but it takes time to get information. We used the information that was available to us at the time. Certain cancers are more compensable.

Comment:

Every claim was denied.

Cindy Bloom:

We're as frustrated on the other side, trying to get information. People were encouraged to file and we appreciate your input.

Question:

A lot of government work was done there. Rumors have it that they worked on the bombs for World War II. Where did you look for records?

Cindy Bloom:

Several different groups looked for records at Oak Ridge and Brookhaven. Some documents are still classified. We did newspaper and internet searches. During the War, companies were working in their areas of expertise – Chapman Valve made valves for the submarines.

Question:

Before final clean up in 1983-84, there were files and pictures all over. How do we find out what happened to them?

Cindy Bloom:

Early records probably went to the Manhattan Engineer District.

Comment:

I have an affidavit from 1987. Records were kept in the second floor offices, but moved to another building. I believe they have been destroyed.

Question:

How does NIOSH determine what qualifies workers for certain cancers?

Cindy Bloom:

People with skin cancer may be considered outside the guidelines, information from the personal interview and Site Profile determine qualification.

Question:

Records were destroyed in the 1970's. There is no documentation for radioactive contamination post-operation. What information do you use to determine exposure during that time?

Cindy Bloom:

Information was used from a survey that was done after that time, since we have no way of knowing what contamination was during that period.

Question:

Workers always did the same tasks. How is exposure determined?

Cindy Bloom:

Higher levels of radiation are assumed across the board. We have sign-in and job title records, but these are not sufficient for all categories. All were given the same exposure.

Question:

Did you change the average internal dose when you plotted the seven results from the fire?

Cindy Bloom:

Internal dose data was scant.

Question:

Are you using an average instead of the upper 90% like Bethlehem Steel?

Cindy Bloom:

We had bioassay information from people in the fire – others were not as high. They weren't based on time-weighted concentrations. The air sampling data taken in May was not useful. We looked at bioassay and air concentration data to see if it would resolve.

Comment:

We'll do our best for documentation, but we have to deal with the background. Workers remember changing departments and circulating. It's reasonable to believe that the majority were exposed in some way.

Cindy Bloom:

We made that assumption – everyone either gets individual dosimetry or surrogate data, even though the actual data is probably actually lower.

Comment:

Other potential sources of radiation have not been considered. There was x ray photography of a lead casket holding samples of 100 and 200 radium pills exposed in the center of a unit on a tripod. There was film around the outside. These were taken to check integrity of the valves that were being produced for the U.S. Navy.

The two rooms that were used for this purpose were at the end of the warehouse. The rooms had plywood walls with a 3-foot high steel lining. We were not told that the radiation hit the 15-foot high ceiling and bounced around.

The exposed film was sent to the hospital. This was in 1943-44. The Navy compiled the x rays. There were 12-inch concrete walls lined with steel. There was a control room (to prevent exposure). We didn't use film badges or TLD's because of the control room.

Comment:

They used a 1,000 kilovolt x ray unit. The badge results always came back high (in the 1950s and 1960s). The boss said there were high radiation levels because it was from an open source. They kept the results in a log.

Question:

How were the garments taken care of that were worn in the room?

Cindy Bloom:

They were probably laundered – dust comes off.

Comment:

Indian Orchard had a radioactive laundry business.

Comment:

There is some mystery regarding reports of uranium processing during World War II. Workers during the period from 1942 to 1945 had no idea what was the nature of their work

and had no protection from the radiation. They were not told until after the war that they were part of the Manhattan Project. Most first-hand accounts have been from workers who are already deceased.

Cindy Bloom:

This makes them eligible as an AWE site. The information goes in the system. It would help to find out what they made and what type of work they did.

Comment:

It was similar to later work. Trainloads of uranium rods were brought in to be finished and shipped out.

Question:

Have WW II documents and contracts been examined?

Answer:

They are still looking for some of those.

Question:

What about Brookhaven? Have you identified the boxes to search?

Cindy Bloom:

Yes, there is an active, ongoing data capture effort.

Comment:

The first reactor went into use in 1948, so earlier work is unlikely.

Cindy Bloom:

During WW II, they used the calutron for uranium enrichment. It wasn't efficient, so they went to gaseous diffusion plants.

Question:

How will it affect the Site Profile if we can document uranium work?

Cindy Bloom:

Specific data is the most helpful.

Question:

The Manhattan Project period is memorable, but difficult to document

Cindy Bloom:

The Site Profile is modified, but not definitive. We would appreciate input.

Comment:

The Manhattan Project was run out of NY until 1948. Where was the contracting done? Who were the vendors and suppliers for the Manhattan Project?

Bill Murray:

We found a purchase order for the x ray machine in the Oak Ridge Operations vault. It's difficult to get information out due to classification issues – a Q clearance is required.

Comment:

There are about 140 people in the Chapman Valve group who will help out if they can. There is a lot of anger in the community. Of approximately 250 claims, 170 have been denied.

Cindy Bloom:

NIOSH has seen less than 100 claims. Those must have been denied at the Department of Labor, perhaps based on the type of disease, or length of employment.

Question:

Can you describe the limitations of data in the Site Profile? What is the basis for the dose reconstructions if you omit those involved in the fire? How is the data averaged?

Cindy Bloom:

There is a procedure on bioassay data on groups of people – we use the co-workers at Chapman Valve.

Question:

You only have data from one date. What about the production activity?

Cindy Bloom:

June to September was the most active production period.

Question:

Where was the uranium from the grinder and lathe operations sent?

Cindy Bloom:

Monthly reports state that the uranium was used in the Brookhaven reactor.

Comments:

There was a lot of uranium from the furnace going up the stack.

We have a memo discussing rolling operations.

The Site Profile could do more justice to each of the processes. If they were machining uranium on the lathe, there would have been heat and fire. How do you account for only one set of data with the above sources and factors?

Question:

The machines are probably still around. Would samples be useful if they can be obtained? They are in somebody's garage.

Answer:

The samples must be taken by certified lab personnel.

Comment:

The EPA found a hot spot in the soil next to one of the windows of Building 23. That's how we know the incinerator was vented out the window.

Comment:

The paperwork was shipped to Houston, Texas, then Carol Stream, then California, when our pension funds were moved by Crane Company.

Bill Murray:

AEC records may not be with the pension plan records, some of the information would be classified.

Comments:

Claimants have difficulty getting verification through Social Security.

The information was also put on microfiche. The Crane Company has been less forthcoming as more people call for sixty year old information.

Question:

Is the limited data you have for Chapman Valve consistent with other sites doing the same type of work, especially the lathing (burnt uranium in the air)?

Cindy Bloom:

We would have to look at Co-Worker Data for Y-12. It is consistent with other sites so far. There must have been some machining. The numbers are fairly high. Based on that, some organs will be compensable. Over estimated exposure times, it is typically the lungs and skin that are most affected.

Comment:

Please look at other lathing operations – it would help for basis of comparison.

Cindy Bloom:

There is not much information available for comparison.

Comment:

The Internal Dose information is sparse, only relying on one set of samples. The other two were the limits of detection.

Cindy Bloom:

That means the limits were low. In 1948, data was collected to document what was going on in the workplace. There were no compliance issues.

Comment:

We need a better sample of the representative workforce.

Cindy Bloom:

The method of sampling used then is still the standard sampling process in use today. Only 50 badges were used back then – people rotated with the limited number of badges available, and went into the area for small amounts of time.

Comment:

Most people worked overtime. The numbers don't sound right. The company didn't track employees closely.

Comment:

The work site was dirty, dangerous, and the workers were not well protected. Any information from management should be taken with a grain of salt. They ran a lousy site. The quality of reporting and the energy they put into safety programs was low.

Cindy Bloom:

We have handwritten records of job descriptions and time spent in certain areas.. Should I not believe them?

Comment:

Regarding potential work on the Manhattan Project, everything was completely secret.

Comment:

There was no safety program of any kind – they were literally bare-handed.

Cindy Bloom:

Standards and limitations in the 1940s were different, not as we see them today Documentation is always someone's perspective – the records seem credible

Comment:

Did you take into the consideration that there was no monitoring of the lunch and break rooms? Uranium dust found its way into these rooms because there was no special ventilation. The data you have was from the beginning of the production period. The concentration in the production area must have been higher. This casts doubt on the sampling, and the same for the urinalysis.

Cindy Bloom:

We made assumptions regarding the levels of detection that were consistent with the data.

Comment:

The furnace in question was not a chip burner, it was a cracking furnace.

Closing Comments by the Director of the Western Massachusetts Center for Occupational Safety and Health:

We appreciate getting your input, and wish there was more hard data to give Scientists need to be objective, but the system has limitations. The United States Government knowingly poisoned 100,000 people across the country.

Attachment 4

MA.8

ORNL/RASA-92/1

ornl

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MARTIN MARIETTA

Results of the Radiological Survey at the Former Chapman Valve Manufacturing Company, Indian Orchard, Massachusetts (CIO001)

R. D. Foley
M. S. Uziel

MANAGED BY
MARTIN MARIETTA ENERGY SYSTEMS, INC.
FOR THE UNITED STATES
DEPARTMENT OF ENERGY

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ORNL/RASA-92/1

HEALTH AND SAFETY RESEARCH DIVISION

Environmental Restoration and Waste Management Non-Defense Programs
(Activity No. EX 20 20 01 0; ADS317O000)

Results of the Radiological Survey at the Former Chapman Valve Manufacturing Company, Indian Orchard, Massachusetts (CIO001)

R. D. Foley and M. S. Uziel

Date Issued - July 1992

Investigation Team
R. E. Swaja - Measurement Applications and Development Manager
W. D. Cottrell - FUSRAP Project Director
R. D. Foley - Field Survey Supervisor

Survey Team Members
R. A. Mathis D. E. Rice
V. P. Patania D. A. Rose
W. A. Williams*

*U.S. Department of Energy

Work performed by the
MEASUREMENT APPLICATIONS AND DEVELOPMENT GROUP

Prepared by the
OAK RIDGE NATIONAL LABORATORY
Oak Ridge, Tennessee 37831-6285
managed by
MARTIN MARIETTA ENERGY SYSTEMS, INC.
for the
U. S. DEPARTMENT OF ENERGY
under contract DE-AC05-84OR21400

surface contamination (Table 1, p. 30). Table 5 (p. 38) shows that 17 of 23 dust samples from overhead beams contained ^{238}U at concentrations ≥100% of the DOE guideline of 1000 dpm/100 cm^2 for removable surface contamination (Table 1, p. 30).

Two dust samples, M10 and M31, were selected for uranium isotopic analysis to determine if the uranium content was normal or enriched. Normally, uranium contains 0.711% ^{235}U. Uranium in which the 235 isotope concentration has been artificially increased above the normal level is called enriched uranium. Sample M10 contained the normal percentage of ^{235}U; sample M31 had been slightly enriched to 2.16% ^{235}U.

Radiation measurements prior to and after collection of dust and debris samples are given in Table 6 (p. 39). Frequently, alpha radiation levels, and in some cases beta-gamma radiation levels, remained elevated after sample collection, showing that scraping away the dust or debris did not completely eliminate all contamination.

DISTRIBUTION OF CONTAMINATION

Radiological contamination in Building 23 was concentrated in the westernmost 15 grid areas, primarily in grid blocks A1 through A15. This central area of the building was relatively free of debris and clutter, allowing good access to the area. Only a few spots of contamination were found on the floors and walls, but overhead beams and horizontal surfaces were consistently elevated. Some contamination was evident in the westernmost B grid blocks, but clutter and debris in this area prevented a thorough survey. Anomalies identified in this area (Fig. 7, p. 15) included a radiator on the south wall of grid block B1 with beta-gamma dose rates of 0.1 to 0.4 mrad/h; a spot on the floor at column C2 with beta-gamma dose rates of 0.2 mrad/h; elevated beta-gamma dose rates in the northwest corner of grid block B2; and a circular area on the floor near the southeast corner of grid block B5 with beta-gamma dose rates of 0.3 mrad/h. No anomalies were identified in grid blocks AA1 through AA10. Highlights of the survey of the central part of the building are presented in Figs. 9 through 19 (pp. 17 through 27).

Grid Block A1 and Building Exterior

On the west end of the building, contamination was identified on the building exterior surface, underneath a former window approximately 4 ft south of the main entrance and 1 ft above the ground. At this location (Fig. 20, p. 28), beta-gamma dose rates measured 0.7 mrad/h and maximum alpha activity reached 2900 dpm/100 cm^2. Smear 17 from this area demonstrated that the contamination was not removable (Table 3, p. 33).

Other details of the survey of grid block A1 are diagramed in Fig. 9 (p. 17). (Solid lines represent the floor area; extended dashed lines represent the walls.) North of the concrete ramp immediately inside the main entrance, an elevated area (Fig. 21, p. 28) contained gamma exposure rates of 32 μR/h and beta-gamma dose rates up to 1.3 mrad/h. Debris sample M31 collected at this location was slightly enriched (2.16% ^{235}U) and contained 120 pCi/g ^{238}U (Table 4, p. 36). Beta-gamma dose rates of 1.5 mrad/h were found on the wall and on a ledge just north of the main entrance (Fig. 22, p. 29). The west wall south of

Attachment 5

FOIA

~~CONFIDENTIAL~~

SPECIAL RESTRICTED
FINAL DETERMINATION
UNCLASSIFIED
By: [signature]
Date: 9/30/80

431
NYO
MATERIALS 9 9/25/80

W. E. Kelley, Manager, New York

Walter J. Williams, Director of Production
Washington
SF MATERIALS LOST OR UNACCOUNTED FOR

REFER TO
SYMBOL: [illegible]

The Commission is responsible for the production of SF materials. It is also responsible for conserving these materials and ensuring that they are not stolen. Production and research operations necessarily involve some losses of materials, but it is extremely important that losses be kept to the minimum consistent with our production and research requirements. To do this, we must maintain a continuing review of SF material lost or unaccounted for.

The Commission's SF material accounting program is outlined in Bulletin GM-95. One objective is to provide information concerning material losses. Such information is needed to intelligently control losses.

The responsibilities here involved concern both the Managers of Operations and the Director of Production. I feel that our mutual problems with respect to SF materials lost or unaccounted for warrant some explanation and discussion. Each Manager of Operations is responsible for production and research operations under his jurisdiction, including the usage and losses of SF materials involved in these operations. It is his responsibility to ensure that all appropriate conservation measures are applied, and to institute procedures which will minimize the possibility of undetected loss or misappropriation of SF materials. On the other hand, the Director of Production has the responsibility of justifying to the General Manager the losses of Commission-owned SF materials, and the effectiveness and reliability of the material accounting system which provides the information by which these losses may be evaluated and controlled. In many instances this involves answering very detailed questions concerning how well the quantities are known, why particular losses [illegible] or reduced, how [illegible] compare with past performance, what is being accomplished [illegible] establishing better [illegible].

[illegible] intended that loss information of this kind be included in the consolidated material balance report submitted monthly by each Operations Office. However, the reports which have been received to date seem susceptible to considerable improvement in this respect. I realize that there is little reliable information concerning some aspects of our material losses, but feel that we can make more

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Metal Hydrides

These processes at Metal Hydrides were terminated on December 31, 1947 and the gain reported in May 1948 of 26.8 kilograms represented material they found at the plant which was not previously reported. The 0.3 kilograms loss for the same month was the loss on a small metal powder job.

Chasman Valve Mfg. Co.

The loss in this rolling operation of less than 0.1% is less than a reasonable loss for this metal processing, but will be adjusted when estimated scrap is finally assayed.

Columbia University - Dr. Kehl (MCM)

This .1 kilogram loss represents adjustment to actual physical inventory for this research material, and undoubtedly is present in his recoverable scrap.

Linde - Green Salt - LS-6

The losses of less than .1% are very low and indicate better than normal operating procedure compared to similar operations.

Electromet - Metal - CJ-2

The average losses of .45% is normal for this process and indicates good operating procedures.

Special Reviews
Final Determination
Unclass [illegible]
By [illegible]
Date

MIT-175 (MIO)

This research operation has very minor losses in research work. The 98.8 kilograms loss in March is an adjustment of book inventory to the physical and is assumed to represent research processing losses over a period which were not reported.

MIT Eng-85 (MIE)

This loss results from research conducted on ores.

Joslyn Mfg. & Supply Co.

The losses in any month on this physical processing of metal are less than 0.5% which compares favorably with our past experience for physical processing of metal.

AFFIDAVIT

09-23-05P01:29 RCVD

September 15, 2005 SEC Petition Tracking No. 00043

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

To Whom It May Concern:

Per my telephone interview conversation with Pat, a NIOSH telephone interview person, on September 14, 2005 at 1:00 p.m., please make the following corrections to the SEC Petition, tracking number 00043m;

The section E.5 on the application, should have not have been checked.
The section F.1 and F.2 on the application should have been checked.

The attachment included is for F.1 and F.2 as follows:

F.1 and F.2:

Explanation for Question F.1 and F.2 – SEC Petition for Chapman Valve

Error in this section should read:

Bioassay data results for the AEC's contract period from January 1948-April 1949 (uranium in urine) are available for only three dates:

THE PETITION IS CORRECT WITH THE EXCEPTION TO THE ABOVE CORRECTIONS

I was told by Pat (telephone interviewer person) that these errors would be corrected.

I was to submit an affidavit to confirm the telephone interview.

Very truly yours,

Kristi A Reale
KRISTI A Reale
My commission expires
June 20, 2008

MASSACHUSETTS SIGNATURE WITNESSING

Gov. Exec. Ord #455 (03-13), §5(f)

Commonwealth of Massachusetts
County of Hampden } ss.

On this the 15th (Day) day of September (Month), 2005 (Year), before me, Kristi A Reale (N), the undersigned Notary Public,

personally appeared _____ (Name(s) of Signer(s)),

proved to me through satisfactory evidence of identity, which was/were Massachusetts Drivers License (Description of Evidence of Identity),

to be the person(s) whose name(s) was/were signed on the preceding or attached document in my presence.

Kristi A Reale
Signature of Notary Public

KRISTI A Reale
Printed Name of Notary

My Commission Expires June 20, 2008

Place Notary Seal and/or Any Stamp Above

OPTIONAL

Although the information in this section is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Right Thumbprint of Signer
Top of thumb here

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

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