

Dragon, Karen E. (CDC/NIOSH/EID)

From: DanMcKeel
Sent: Monday, November 26, 2012 12:31 AM
To: pl.ziemer@comcast.net; wimunn@aol.com; josiebeach@charter.net; j-poston@tamu.edu; Katz, Ted (CDC/NIOSH/OD); NIOSH Docket Office (CDC)
Cc: danmckeel
Subject: GSI: McKeel ADDENDUM-2 to Allen Nov. 2012 air sample paper
Attachments: McKeel_ADD-2_11.25.12.pdf

Dr. Paul Ziemer and members of the TBD-6000 work group
All members of the ABRWH
Ted Katz, DFO
NIOSH Docket 140 Office

Attachment: <McKeel_ADD-2_11.25.12.pdf> 1.2 MB

Dear Dr. Ziemer and members of the TBD-6K work group and Board, and the NIOSH Docket 140 Officer,

Please include this **8 page Addendum-2** to my previous comment and Addendum-1 comment to David Allen's two GSI air sample surrogate data papers (Aug/Nov 2012) he has submitted for the TBD-6000 Nov. 28, 2012, work group meeting. My paper adds further site characterization of the 37 air samples, and of the AWE and DOE proposed surrogate sites *vis a vis* the Board surrogate data criteria as they may apply to GSI.

I have loaded the assembled Allen and FUSRAP site information, and DOL claims statistical data by state and site, into a Filemaker Pro database and present the results of the analysis in four Tables generated from that database. The four proposed AWE sites and 2 DOE sites are not similar to GSI in that: (a) the AWE sites have far fewer claims, cases, DRs submitted and none approved or paid, (b) 62.2% of the 37 uranium forms for which air samples are available do not match those used at GSI for NDT radiographic inspections, and (c) the complete SRDB documents have not been made available to the petitioners, so the additional air sample data cannot be adequately evaluated.

Ted Katz: Please distribute this to all work group staff and to all members of the ABRWH.

NIOSH DOCKET 140 (GSI) Office: Please consider this paper for posting on the DCAS website as an addition to my previous comment and the first Addendum posted with it under GSI Docket 140 in the 11/28/12 TBD-6000 work group upcoming meeting section. Thank you.

Sincerely -- Dan McKeel Nov. 25, 2012 Sunday

Daniel W. McKeel, Jr., MD
GSI SEC-00105 co-petitioner

Daniel W. McKeel, Jr., M.D.
GSI SEC-00105 Co-petitioner
ADDENDUM-2 Comment on November 2012
David Allen GSI Additional Surrogate Data
Discussion Paper
(11/24/12)

Background

This comment further analyzes all of the additional AWE and DOE sites that David Allen proposes in his August and November 2012 GSI Discussion papers. The November 2012 Allen paper will be a focus of the TBD-6000 work group at its 11/28/12 meeting. The issue is whether or not these additional sites can substitute for the slug facility air sampling data for “cold uranium” handling referred to in Battelle TBD-6000 that failed to meet 4 of 5 Board surrogate data criteria (SC&A Robert Anigstein review paper) at the 8/28/12 meeting of the same work group. The alternate GSI uranium intake (inhalation) model in Appendix BB proposed by SC&A was also found not to be valid based on new petitioner information that both the Old and New GSI Betatron buildings had been power washed repeatedly during the residual contamination period.

Dan McKeel’s analysis is that none of these additional proposed surrogate sites comes close to satisfying the Board’s “stringent justification” critierion 2 or the “process similarity” critierion 4 for surrogate data. The remainder of this paper summarizes all of the data Dan McKeel can gather about these sites, and presents added data on the number of claims and cases filed, approved and paid under EEOICPA part B in this paper. and that have dose reconstructions (DR) done by NIOSH. Part E results were not analyzed for the two DOE sites—Weldon Spring and Fernald—that are proposed for surrogate sites.

Petitioner Data Analyses and Results

David Allen’s data from his August and November 2012 GSI uranium air sample Discussion papers was combined in a personal computer database, Filemaker Pro™, using four different layouts (report formats) to present the data. The AWE proposed surrogate sites included **LeBlond**, **Chambersburg**, **Heald Machine** (August paper only), and **Tocco Industrial** (November paper only). Simonds Saw and Steel was included only in the August 2012 Allen paper to show that uranium activity in air samples was higher during uranium metal rolling than afterwards. DOE sites added by Allen in his November 2012 paper included **Fernald** and **Weldon Spring**.

The co-petitioner added additional data from the Department of Energy FUSRAP covered facilities and considered sites database listings. EEOICPA claims data was taken from 11/17-21/12 DOL website “EEOICPA state and site” statistics for the Allen surrogate sites as well as for General Steel Industries (“GSI”), the index AWE site. The data variables used may be seen in the Layout 1 report for GSI (see page 2). The meaning of each variable is explained in the legend on the following page.

SITE	(GSI) General Steel Industries, Inc.
T_CLAIMS	957
T_CASES	595
C_CLAIMS	588
C_CASES	333
PAID_CASES	72
PAID_AMT	\$10,737,500
DR_TOTAL	288
DR_DONE	253
DR_APPROVE	66
MO_2012	See NOTES
SITE_TYPE	AWE INDEX
SRDB_NUM	n/a
PAGE_NUM	n/a
UR_FORM	dingots, ingots, slices, billets
ACTIVITY	unknown
STATE	MO
NUM_SAMPLE	none
SAMPLE_DATE	n/a

NOTES
 GSI is the INDEX SITE against which all Allen proposed surrogate data sites are assessed as "stringently justified" for process similarity. GSI petitioners assert no Allen proposed SD site passes this criterion. Slugs, derbies not subjected to NDT radiography at GSI 1953-1966 during the AEC contract period. New petitioner info indicates Betatron NDT also was done at GSI Nov-Dec 1952.

Legend. Data variables are derived from DOL website for Part B only. They include: SITE (name of site), T_CLAIMS (total claims), T_CASES (total cases), C_CLAIMS (covered claims), C_CASES (covered cases), PAID_CASES (no. of cases compensated), AMT_PAID (amount of money paid under Part B to date for site), DR_TOTAL (total dose reconstructions submitted to NIOSH), DR_DONE (Dose reconstructions that NIOSH has completed to date for site), DR_APPROVE (NIOSH dose reconstructions that have been approved, i.e. POC equal to or greater than 50.0%), MO_2012 (refers to month in 2012 that David Allen's paper was released), SITE_TYPE (was the EEOICPA site primarily AWE or DOE for the operational period), SRDB_NUM (NIOSH site research database number as given by David Allen), PAGE_NUM (NIOSH site research database PDF document page number as given by David Allen), UR_FORM (forms of uranium handled at the site), ACTIVITY (air sample radioactivity of uranium in dpm/m³), STATE (U.S. state the site is located in), NUM_SAMPLE (number of air samples from site in Allen's 2 papers), SAMPLE_DATE (air sample dates by Allen on sheets (Aug) or Attachment 1 table (Nov paper), NOTES (added by DWM).

Tables 1 through 3 that follow represent the newly compiled data sorted by database field variables "SITE_TYPE" and "SITE_NAME" in ascending order. All of the data variables listed under Layout 1, page 2, are represented in Tables 1-3 to follow.

TABLE 1 Filemaker Pro Layout 2, List Site Data (1 page)

ALLEN_SDsites_2012.fp5

11/25/2012		SITES NAMED ALLEN AUG-NOV 2012							?	
SITE	T_CLAIMS	T_CASES	C_CLAIMS	C_CASES	PAID_CASES	PAID_AMT	DR_TOTAL	DR_DONE	DR_APPROVE	
(GSI) General Steel	957	595	588	333	72	\$10,737,500	288	253	66	
Simonds Saw & Steel	615	365	449	258	120	\$17,847,369	208	182	77	
Chambersburg	1	1	0	0	0	\$0	0	0	0	
Chambersburg	1	1	0	0	0	\$0	0	0	0	
Heald Machine	41	24	31	16	0	\$0; \$900 medical	12	11	0	
RY LeBlond Machine	3	3	0	0	0	\$0	0	0	0	
Tocco Induction	4	2	4	2	0	\$0	2	2	0	
Tocco Induction	4	2	4	2	0	\$0	2	2	0	
Fernald Feed	2733	1920	2429	1644	551	\$82,538,169	1298	1063	461	
Weldon Spring Plant	824	538	570	359	175	\$26,212,500	269	261	96	
Weldon Spring Plant	824	538	570	359	175	\$26,212,500	269	261	96	
Weldon Spring Plant	824	538	570	359	175	\$26,212,500	269	261	96	
Weldon Spring Plant	824	538	570	359	175	\$26,212,500	269	261	96	

Legend. The 4 proposed Allen surrogate AWE sites—Chambersburg, Heald, LeBlond, Tocco—among them have only 14 DRs submitted to NIOSH of which 13 have been completed and none have been paid.

TABLE 2 Filemaker Pro Layout 3, List Allen Data (1 page)

ALLEN_SDsites_2012.fp5

11/25/2012		ALLEN SURROGATE AIR SAMPLE DATA							?
SITE	MO_2012	SITE_TYPE	SRDB_NUM	PAGE_NUM	UR_FORM	NUM_SAMPLE	SAMPLE_DATE	ACTIVITY	
(GSI)	See NOTES	AWE INDEX	n/a	n/a	dingots,	none	n/a	unknown	
Simonds	Aug	AWE ROLL	Not stated	Not stated	rolled	Not stated	Not stated	not stated Fig. 1	
Chambersb	Nov	AWE SD	43252	2	slugs	3	3/21/2057	5-28	
Chambersb	Aug	AWE SD	10048	39	slugs	unknown	Not stated Fig. 3	69-77	
Heald	Aug	AWE SD	40986	10	slugs	not clear	5/18/60	1-11	
RY LeBlond	Nov	AWE SD	10634	11	billets	6	8/22/2061	9-15; 4 ND	
Tocco	Nov	AWE SD	98533	124	slugs	6	6/16/68	5-37; 1 ND	
Tocco	Nov	AWE SD	98533	129	slugs	2	2/16/68	22, 53	
Fernald	Nov	DOE SD	34390	2	derby	9	8/19/63	34-110	
Weldon	Nov	DOE SD	12363	78	dingots	2	11/14/60	21-24	
Weldon	Nov	DOE SD	12363	22	dingots	3	7/26/61	46.62-66.6	
Weldon	Nov	DOE SD	14956	4	slugs	3	3/30/60	25,25,25	
Weldon	Nov	DOE SD	17254	6	dingots	3	12/10/56	11.8, 23.7, ND	

Legend. None of Allen's 4 proposed AWE surrogate sites and 1 DOE proposed surrogate site, Weldon Spring Plant, handled uranium dingots that were the main uranium form at GSI subjected to Betatron NDT radiography. The derby uranium form used at Fernald was not used for NDT radiography at GSI.

TABLE 3a Filemaker Pro Layout 4, List Notes (2 pages)

ALLEN_SDsites_2012.fp5

11/25/2012

ALLEN AUG-NOV 2012 AWE-DOE SITES

?

SITE	PAID_CASES	DR_APPROVE	SITE_TYPE	UR_FORM	NOTES
(GSI) General Steel	72	66	AWE INDEX	dingots, ingots, slices, billets	GSI is the INDEX SITE against which all Allen proposed surrogate data sites are assessed as "stringently justified" for process similarity. GSI petitioners assert no Allen proposed SD site passes this criterion. Slugs, derbies not subjected to NDT radiography at GSI 1953-1966 during the AEC contract period. New petitioner info indicates Betatron NDT also was done at GSI Nov-Dec 1952.
Simonds Saw & Steel	120	77	AWE ROLL	rolled "uranium metal"	Site listed as GSI surrogate in Allen Aug 2012 paper only. Omitted from Nov 2012 paper. Purpose of including this site was to show that airborne uranium activity was higher during rolling compared to after rolling. Rolled billet flat sheets of uranium were not used at GSI 1953-66, during the AEC contract period. Dates not in Fig. 1.
Chambersburg	0	0	AWE SD	slugs	• SRDB/page numbers for this site in Allen Nov 2012 paper differ from Allen Aug 2012 paper for same site. Slugs were not used at GSI. This is confusing. TBD-6000 slug facility surrogate site failed Board SD criteria. 8/28/12 TBD6K work group meeting.
Chambersburg	0	0	AWE SD	slugs	Heating and forging of slugs caused higher airborne levels so that "...it is possible some of the airborne contamination caused by this work interfered with samples taken while loading the furnace." Allen DCAS Aug. 2012 paper. Text and Fig. 3 do not clearly state the number of cold Ur air samples.
Heald Machine	0	0	AWE SD	slugs	Site listed as GSI surrogate in Allen Aug 2012 paper only, as Fig. 2. Heald site was omitted from the Allen Nov 2012 paper. A reason is not stated except that "although this activity may not be directly applicable to the movement of cold uranium metal..." Air samples were taken from cooled machine area during machining.
RY LeBlond Machine	0	0	AWE SD	billets	Billets were also used at GSI. However, size comparability of billets sent to GSI by MCW and LeBlond site billet size has not been documented conclusively. Fig. 4 of the Aug 2012 Allen paper shows 3 samples of handled "cold" Ur, and 3 samples taken after billet was bored, i.e., were not strictly cold when handled.
Tocco Induction	0	0	AWE SD	slugs	Slugs were not used at GSI. TBD-6000 slug facility surrogate site failed Board SD criteria, based on an SC&A review paper, at the 8/28/12 TBD6K work group meeting.

Legend. Part A of Layout 4 (List Notes) adds the NOTES variable field to previous database report variables. This part of the table highlights again that three of the 4 sites that are AWE and therefore similar to the GSI AWE site, nevertheless used uranium slugs similar to the slug facility in TBD-6000 that SC&A Board surrogate data criteria.

Summary of Layout 4, List Notes report. The notes field emphasizes dissimilarities between the type of uranium form used for NDT radiography at the Index AWE site, GSI, compared to David Allen's surrogate AWE and DOE sites for uranium air samples in his August and November GSI papers. Only uranium dingots and billets were sent from MCW sites to GSI under AEC contract. Uranium slugs and derbies were not handled at GSI. Betatron slices and ingots were used at GSI, and these forms are not represented at the additional Allen surrogate sites. The Simonds Saw and Steel AWE site did not yield relevant air samples to GSI. The SS&S was used to show the effect on uranium air activities of rolling uranium metal as being highest during rolling.

TABLE 3b Filemaker Pro Layout 4, List Notes (2 pages)

ALLEN_SDsites_2012.fp5

11/25/2012		ALLEN AUG-NOV 2012 AWE-DOE SITES			?
SITE	PAID_CASES	DR_APPROVE	SITE_TYPE	UR_FORM	NOTES
Tocco Induction	0	0	AWE SD	slugs	Slugs were not used at GSI. THB-6000 slug facility surrogate site failed Board SD criteria. 8/28/12 TBD6K work group meeting.
Tocco Induction	0	0	AWE SD	slugs	Slugs were not used at GSI. THB-6000 slug facility surrogate site failed Board SD criteria. 8/28/12 TBD6K work group meeting.
Fernald Feed	551	461	DOE SD	derby	Allen Table footnote (1) (Attachment 1): (1) "Values listed as maximum, minimum and average were used as three different samples" ● The derby form of Ur-238 was not used at GSI for NDT radiography 1953-1966
Weldon Spring Plant	175	96	DOE SD	dingots	Allen Nov 2012 table, Footnotes (1) (2) of Attachment 1: (1) "Values listed as maximum, minimum and average were used as three different samples" (2) "Values back calculated using conversion factors at the bottom of summary report"
Weldon Spring Plant	175	96	DOE SD	dingots	Allen Nov 2012 table, Footnotes (1)(2) of Attachment 1: (1) "Values listed as maximum, minimum and average were used as three different samples" (2) "Values back calculated using conversion factors at the bottom of summary report"
Weldon Spring Plant	175	96	DOE SD	slugs	Slugs were not used at GSI. THB-6000 slug facility surrogate site failed Board SD criteria. 8/28/12 TBD6K work group meeting.
Weldon Spring Plant	175	96	DOE SD	dingots	Weldon Spring plant was not in operation until 1957. Thus, these 3 samples must have been from MCW - Destrehan St. (downtown StL).

Legend. Note that only Weldon Spring Plant handled uranium dingots as did GSI. Yet other parameters of this DOE Feed Materials Plant were quite different from GSI. The last entry indicates these three air samples dated December 10, 1956, must have been from MCW in downtown St. Louis rather than from the Weldon Spring site where work didn't start until 1957. Note that several WS dingot values were not actually separate sample values but rather maximum, minimum and average data values, or were back calculated from a data summary that was not part of the Allen November 2012 Allen paper.

Dan McKeel's Summary and Conclusions. The November 2012 Allen GSI paper has several major weaknesses that make the air sampling data from additional surrogate sites difficult to assess.

(1) Insufficient information about the four proposed surrogate AWE sites is presented by Allen in order to meet the Board "stringent justification" comparability criterion. It is obvious that none of these 4 sites is remotely comparable to GSI in any way. Allen did not include the complete SRDB citations, and the parent documents must

be examined in order for his additional site air sample data to be properly evaluated by SC&A and the Board. The petitioners believe these reports may not have been made available by Mr. Allen to the work group and to SC&A prior to 11/25/12.

(2) These 4 Allen surrogate AWE sites had no claims approved or paid,

(3) These 4 Allen surrogate AWE sites had 14 NIOSH DR submitted and 13 DR completed, none of which were approved.

(4) Only 1 of the 4 Allen surrogate AWE sites, Tocco Industrial, had FUSRAP data.

(5) Board surrogate data critierion 1, "*hierarchy of data*," therefore is not met in that the AWE surrogate site data offered is more advantageous than GSI, the INDEX AWE site against which all surrogate sites must be compared, only in that a few fragmentary "cold uranium" air samples are available. GSI operations with uranium are different, involving Betatron NDT irradiation of the MCW uranium dingots using a special uranium shield made at MCW that was in use as early as November 1952. We have attached as EXHIBITS 1 and 2 conclusive proof the GSI, Granite City, IL, 24 Mev Betatron was in use in January 1952.

(6) Allen's final list of 37 uranium air samples in the Table, Attachment 1 of his November paper, includes (**n=14**) slug samples and (**n=9**) derby samples that represent types of uranium that were not sent by MCW to GSI to be studied by Betatron NDT radiography. **Using these 23 samples that are 62.2% or 2/3rd of total additional Allen surrogate air samples is not acceptable:** GSI studied mainly uncropped uranium dingots, plus fewer uranium billets and "Betatron slices." The TBD-6000 slug facility (not named) was discredited by the TBD-6000 work group on 8/28/12. Mr. Allen was unwilling, however, to admit the GSI Appendix BB intake model was not bounding. The latter form is not represented in Allen's August or November surrogate data.

(7) Mr. Allen indicates that all of these additional surrogate air samples will be used in a revised Appendix BB sometime in the future. No specific intake model is proposed to replace the existing one, and it is not clear exactly what method will be employed to calculate uranium intakes in a revised Appendix BB. Standard parameters for calculating uranium intakes include ambient general air samples, breathing zone samples, process samples, and urinary uranium bioassays, none of which are available at GSI. The type of air samples Mr. Allen lists in the Table accompanying Attachment 1 of his November 2012 GSI intake paper is not clear.

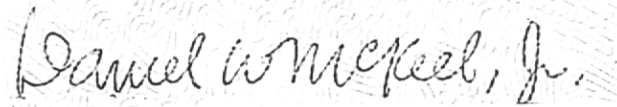
(8) Some photographs of Weldon Spring uranium dingots clearly show their outer surface is very rough due to the adherent Magnesium-Fluoride slag, and the dingot (see **EXHIBIT 1**) is obviously taller than it is wide. Mr. Allen's figure of 18 by 18 inches for Weldon Springs (*sic*) uranium dingots is therefore suspect; his primary documentation source for stating this "fact" is not given.

(9) Back calculating summary data to obtain data points and using maximum, minimum, and average values as three individual sample values are misleading, not standard, and thus unacceptable statistical practices.

(10) Co-petitioner McKeel was told by DCAS Director Hinnefeld that he must request the SRDB documents, not all of which could be identified by author, title, volume and report number and date, via the FOIA route, and that the request should be routed first through the CDC/ATSDR FOIA office, which would pass the request to DOE, which would then obtain electronic copies from NIOSH that could finally be routed to

Dan McKeel. This circuitous routing seemed to be designed to cause the maximum possible confusion and delay. It seems that even though the requested SRDB documents are DOE-generated, that DOE must now rely on NIOSH to furnish printed copies to the FOIA requester McKeel.

Respectfully submitted,

A handwritten signature in cursive script that reads "Daniel W. McKeel, Jr." The signature is written in black ink on a white background.

Daniel W. McKeel, Jr.

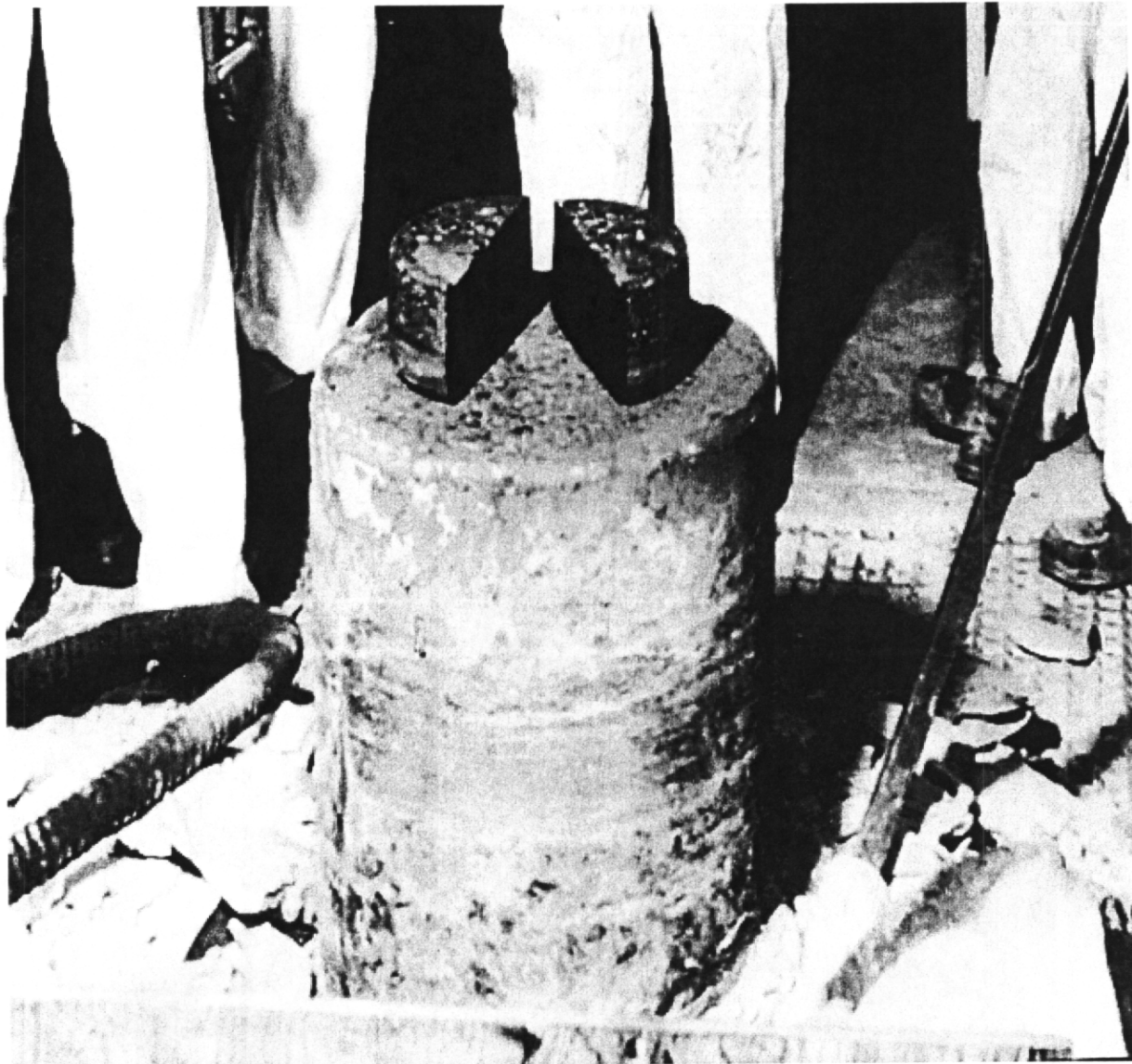
11/25/2012

Contact information:

Daniel W. McKeel, Jr., M.D.
GSI SEC-00105 co-petitioner

Attachment: EXHIBIT 1 Weldon Spring uranium dingot photograph

EXHIBIT 1
Weldon Spring Site Interpretive Center
-- Uncropped rough surfaced uranium dingot --



Legend. A photograph of a uranium dingot from Weldon Spring Site Interpretive Center museum area wall display. Courtesy [redacted] 2009, with permission of DOE contractor staff given to him. The height is taller than the width, unlike David Allen's Weldon Springs uranium dingot size that was stated to be 18 x 18 inches in his November 2012 GSI air sample paper. It seems likely this dingot has not been cropped or further machined, as the outer surfaces are uneven and shaggy. The size of this photographed uranium form is not given but can be judged by the workers pant legs and shoes in the background surrounding the dingot.