

DOW SEC-00079 PRESENTATION
Daniel W. McKeel, Jr., M.D.
ABRWH – May 3, 2007

My remarks today will be focused entirely on issues that affect the Dow Special Exposure Cohort SEC-00079. Arthur Wieder is the designated section 83.14 petitioner and I am his Authorized SEC petitioner. I represent members of the Southern Illinois Nuclear Workers or SINEW.

There are five overarching issues that I will address in turn.

TIMELINESS ISSUES

- McKeel was first notified about a Dow 83.14 on 9/6/06 by Lavon Rutherford of NIOSH and a “litmus case” candidate was tentatively identified. I was informed that ORAU would construct a class definition and select a final litmus case in the next 30 days;
- 62 days later I was informed the first litmus case—a worker who first filed in August 2001—started work after the end of the covered period of 1960 and therefore had been rejected;
- Mr. Wieder received his Form A from NIOSH (~11/07/2007);
- Court reporter verbatim transcripts, McKeel Powerpoints, and videotape recordings of three July-August Dow worker meetings, including a NIOSH Outreach meeting, were delivered to NIOSH in November 2006;
- Mr. Wieder returned his signed Form A with 37 affidavits to NIOSH on November 27, 2007;
- SEC presentation to the Board was postponed by NIOSH shortly before the Dec. 07 Naperville, IL, meeting;
- SEC-00079 petition was qualified 12/14/06 and published in the Federal Register;
- NIOSH sent a letter to Dow headquarters on 1/30/07 requesting monitoring, source term and operations data, and information related to magnesium-thorium alloy shipments, from 1957 to 1998 relating to the Dow Madison IL site;
- SEC presentation to the Board was postponed by NIOSH shortly before the Feb. 7-9 Mason, Ohio, meeting;
- “Dow SEC Update” session was held 2/8/07 at ABRWH meeting. A 7384W subpoena to obtain Dow Madison records was discussed and the Board tasked SC&A to become familiar with Dow SEC records;

-----delays increase-----

- Three Dow worker meeting transcripts posted on OCAS website 4/17-19/07;
- Dow SEC petition with first 37 affidavits posted on OCAS website _____;
- Dow second set of 29 affidavits posted on OCAS website ~4/18/07; **11 workers testify that Dow shipped truckloads of magnesium-thorium allow to AEC and Rocky Flats in Colorado;**
- SEC-00079 evaluation report was posted on OCAS website April 19, 2007;
- Four members of the IL Congressional delegation requested the Board to extend the Dow SEC Class definition to cover the 1961-1998 residual uranium period (4/27/07);
- Dow Midland posted a 52 MB Zip-compressed archive with hundreds of documents on an FTP server at midnight 4/27/07 minus any index or explanation of what the documents represented; in 2006 the same group had indicated to SINEW they had no (zero) responsive records;

- Feb. 8, 2007, ABRWH meeting transcript was posted 4/30/07 afternoon;
- Larry Elliott informed me by e-mail that new Dow files NIOSH received 4/27/07 will cause NIOSH to ask the Board to delay a vote on the Dow SEC petition on May 3;

THE NIOSH SEC-00079 EVALUATION REPORT POSTED ON OCAS 4/19/07

- We have 22 specific concerns with this report that translated into 14 specific questions that were presented to Larry Elliott at OCAS on 4/17/07. A copy is attached of these concerns and questions and they should be carried as an integral part of this presentation;
- Eight of the 14 questions were treated as FOIA requests. SINEW has requested that this decision be rescinded for the air monitoring and dose rate data and the References and that these data and reports be sent to me immediately as part of the SEC petitioner openness policy.
- The following points were most disturbing after the long wait and late arrival of this report:
 - (1) The limitation of the Class to 1957-60 and exclusion of the uranium residual period was not adequately justified;
 - (2) The important negotiations with Dow Midland for Madison records was not even acknowledged or described as to outcome;
 - (3) The crucial affidavit testimony regarding a close working relationship between the AEC, Rocky Flats and the Dow Madison site for thorium alloys was overlooked, an inexcusable oversight and rebuff to the workers and to all the people that carefully prepared this site expert testimony. **NOTE THERE IS NO DOW MADISON SITE PROFILE and the DOW SITE SPECIFIC APPENDIX TO BATTELLE TIB-6000 WILL NOT BE FORTHCOMING** according to Larry Elliott with Dr. Lewis Wade in a three-way 4/17/07 phone conversation.
 - (4) **We disagree that ORAUT-OTIB0004 Rev2 is adequate to reconstruct uranium doses at Dow because this technical document does not adequately cover exposures to uranium extrusion and rod straightening in the rolling mill section.**

EXTENSION OF THE CLASS DEFINITION TO COVER THE URANIUM RESIDUAL PERIOD

- As of 4/26/07 the Madison site has submitted **322** Part B and E claims, **278** cases representing **261** unique individuals, with **107** cases having been referred to NIOSH. Only two (2) dose reconstructions have been performed at the Madison site since 2001 and one claimant has been paid. Claims have been submitted for Dow, Consolidated Edison (Conalco) and Spectrulite Consortium, Inc. (SCI) representing the main successive owners from 1951 until today;
- OCAS acknowledges repeatedly that petitioner McKeel is interested in having the SEC cover the residual contamination period from 1961 to 1998 in addition to the operational period of 1957-60 for Mallinckrodt experimental uranium extrusion and rod straightening work;
- **Approximately 70 claims will be covered under a 1957-60 Class definition, where the broader Dow Class from 1957 to 1998 would include 23 additional workers including the candidate litmus claimant who filed in August 2001 and whose Part B claim is still pending;**
- Feb. 8, 2007 Larry Elliott acknowledges in public session that EEOICPA does not preclude SEC coverage of the residual uranium period and that this period is covered for ordinary dose reconstructions;
- NIOSH SEC evaluation report admits regular EEOICPA claims can be compensated for 1957-1998 but limits the Class definition to 1957-60 with a flawed and hard to grasp explanation;

- Illinois U.S. Senators Durbin and Obama and U.S. Congressmen Costello and Shimkus join in bipartisan request to NIOSH to extend Class coverage out to 1998.

DOW MADISON RELATIONSHIPS WITH THE ATOMIC ENERGY COMMISSION AND THORIUM PRODUCTION AND RESIDUAL CONTAMINATION

- U.S. Army Corps of Engineers 2000 FUSRAP report contention that “no Dow Madison site thorium work was AEC related” cannot be backed up by primary documents in June, 2006 meeting between USACE, SINEW members and Congressman Shimkus’ staff in St. Louis. Te Corps did find thorium and uranium dust being co-located above the extrusion press rafters in Building 6. **We contend the AEC and commercial thorium streams at Madison site are not separable and hence thorium should be calculated in dose reconstructions throughout both the residual uranium and thorium contamination periods up to 1998.**
- **Eleven (11) Dow workers provide sworn notarized affidavits to the effect that the Madison plant shipped truckloads of thorium-magnesium metal alloy to Rocky Flats and the AEC.** These affidavits go unchallenged for credibility by NIOSH at the time of submission. SINEW strongly argues that the affidavits are credible and were neither “coached” nor “anecdotal” as characterized unofficially by NIOSH, but never in writing to the petitioners McKeel and Wieder. McKeel and SINEW *pro bono* attorney Joseph Kumierczak strongly protest characterization of Dow affidavits as being coached or anecdotal. This is done in writing to the Advisory Board Chair and to Dr. Wade as the Designated Federal Official (DFO).
- Dow Midland documents received 4/27/07 prove that Dow Madison provided sintered magnesium (**SLIDE #1**) magnesium-thorium alloy (**SLIDE #2**) to Mallinckrodt Chemical Works Uranium Division operations and the AEC.
- Pangea Group May 2006 thorium inventory (**SLIDES #3 and #4**) shows widespread residual thorium metal throughout former Dow plant buildings complex. This report was generated Dow Madison is decommissioning its current thorium license (IL-01795) with the state of Illinois.

HARM TO THE WORKERS, INCLUDING BERYLLIUM EXPOSURE

- Dow reports such as that by Silverstein in 1957 suggest that the Madison site had an active well honed worker safety program.
- Nothing could be further from the truth as revealed by worker affidavits and meeting transcripts. including the NIOSH Outreach meeting held in Collinsville, IL, on 8/22/07. This was session where workers passed the microphone down the rows and gave their testimony freely.
- The risk of handling uranium and especially thorium and beryllium were downplayed to the workers and even to supervisors by plant management.
- There were numerous magnesium and thorium related fires and explosions, and workers injuries and deaths. OSHA was called in for many of these accidents;
- There were periodic “special metal” or “PE” (photoengraving plates was a major Dow product) metal extrusion and rolling mill runs where the workers asked but were not told the true nature of the metal. They guessed it was some sort of thorium compound based on the tell-tale behavior in the heated extrusion process;
- **No individual dosimetry data exists for Dow workers that has been produced by DOE, NIOSH, Landauer or by Dow in our current negotiations.**
- The workers indicate that badges were “cosmetic,” being worn for certain inspections and then discard without, according to the workers, being read.

- The workplace at Dow Madison was dirty, with high amounts of thorium-rich fumes and smoke from the “pot room” that spilled over to other buildings and even led to plant shutdowns.
- The workers handled large quantities of pure thorium and beryllium metal as alloy components from the 1950s through part of the 1990s.
- Dr. Lar Fuortes is studying at least ten former Dow workers for respiratory illnesses to rule out chronic beryllium lung disease and/or pulmonary disease (especially fibrosis) related to thorium exposure that is apart from malignancy;
- The Madison plant produced LockAlloy™ beryllium-aluminum metal starting in 1963.
- Besides the FUSRAP uranium cleanup in 1998 in Building 6, the affidavits and meeting transcripts record many “private” cleanups at the Madison site. Two major ones were in 1993 when ERG of Albuquerque, NM, removed more than 850 rail cars of magnesium-thorium sludge offsite to Utah and the current Pangea thorium license decommissioning cleanup that is ongoing.

In summary (with 9 slide Powerpoint presentation), I believe the Dow Madison section 83.14 SEC-00079 Class should be extended from 1957-60 to 1957-1998 to cover at least the uranium production and residual contamination periods. Because of the AEC related thorium work with Mallinckrodt and Rocky Flats, and given the fact that commercial/military and thorium waste streams cannot be separated, we believe the SEC should also include the dual uranium and thorium residual contamination period. The Dow Madison workers were definitely severely harmed at this site for decades. They deserve to be honored by extending the SEC Class to cover the full period of harm they have been subjected to for decades.

RESPECTFULLY SUBMITTED,

Daniel W. McKeel, Jr., M.D. 4/30/07
 Designated Dow SEC-00079 petitioner
 Southern Illinois Nuclear Workers (SINEW)

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Dow SEC-00079: Petitioner

Daniel W. McKeel, Jr., M.D.

May 3, 2007 ABRWH Meeting

Denver, Colorado

SLIDE 5 - DOE Facilities

[LM Navigation Bar](#) | [LM Home](#) | [DOE Website](#) |



Considered Sites Database

Facility Description: The Dow facility in Madison, Illinois, supplied the AEC with materials (chemicals, induction heating equipment, and metal magnesium metal products) and services. Dow received a purchase order from Mallinckrodt in March 1960, for research and development on the extrusion of uranium metal and rod.



U.S. DEPARTMENT OF ENERGY

SCIENCE & TECHNOLOGY | ENERGY SOURCES | ENERGY EFFICIENCY

OFFICE OF HEALTH, SAFETY AND SECURITY

Energy Employees Occupational Illness Compensation Program

Text size: Smaller - Normal -

Facility List

SLIDE 1-A

Date 10/28/57

Acting under U. S. Atomic Energy Commission Cont. No. W-14-108-ENG-8

MALLINCKRODT CHEMICAL URANIUM DIVISION
65 Destrehan Street
ST. LOUIS 7, MISSOURI

PURCHASE ORDER

TO **Dow Chemical Company**
10 S. Brentwood Blvd.
St. Louis, Missouri

Attn: Mr. W. E. Stuart

U-273h-M
November 6, 1957
DATE

F.O.B. Destination: 65 Destrehan St.,
St. Louis, Missouri

PLEASE SHIP THE FOLLOWING MATERIALS SUBJECT TO INSTRUCTIONS ON REVERSE SIDE, ATTACHED TERMS AND CONDITIONS, AND IN ACCORDANCE WITH YOUR QUOTE OF Verbal - October 28, 1957

MAIL THREE (3) COPIES OF YOUR INVOICE GIVING ITEM NUMBERS, DESCRIPTION, AND UNIT PRICE EXACTLY AS SHOWN ON THIS ORDER.

ROUTING Your Delivery

DELIVERY Accomplished
(BUYERS PLANT)

TERMS Net 30 Days

ADDRESS ALL CORRESPONDENCE PERTAINING TO THIS ORDER TO THE ATTENTION OF W. E. Stuart BUYER

ITEM No.	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	AMOUNT
			Req. U-273h-M		
			Confirming verbal order of October 28, 1957 with your Mr. W. E. Stuart. Do not duplicate.	FIRM PRICE	
1	100	lbs.	Cell Magnesium ASTM B-72-52, 1" x 6" x 12", castings sheared to approximate 1" cubes, bearing to be completed by Dow at no charge.	3.3825	338.25
2	100	lbs.	3/32" Welding Rod, H18, sheared to lengths between 3/32" and 1".	1.27	127.00
3	100	lbs.	Cell Magnesium ASTM B-92-52, chipped to a coarse particle size.	1.00	100.00
			Total		\$265.25
			Ship to: Mallinckrodt Chemical Works Uraniun Division 65 Destrehan Street St. Louis, Missouri		

12-75 04184 410-1103(1-3)5

TDCC 000322

SLIDE 1-B

1	100	lbs.	Cell Magnesium ASTM B-92-52, 1" x 6" x 12", castings sheared to approximate 1" cubes. Bearing to be completed by Dow at no charge.	0.3525	\$38.25
2	100	lbs.	3/32" Welding Rod, MIA, sheared to lengths between 3/32" and 1".	1.27	127.00
3	100	lbs.	Cell Magnesium ASTM B-92-52, chipped to a coarse particle size.	1.00	<u>100.00</u>
Total					\$265.25
Ship to:			Mallinckrodt Chemical Works Uranium Division 65 Westrohan Street St. Louis, Missouri		

OCTOBER 28, 1957 MCW Purchase Order to Dow

DOW SEC-00079 SLIDE 2-A

Date 3/17/58

Acting under
U.S. Atomic Energy Commission
Contract No. W-14-108-ENG-8

MALLINCKRODT CHEMICAL WORKS
URANIUM DIVISION
P. O. Box 472
ST. CHARLES, MISSOURI

PURCHASE ORDER
U-52990-A
3-18-58
DATE

TO Dow Chemical Company
10 South Brentwood
St. Louis, Missouri

F.O.B. Madison, Illinois - Frt. Allowed

PLEASE SHIP THE FOLLOWING MATERIALS SUBJECT TO INSTRUCTIONS ON REVERSE SIDE, ATTACHED TERMS AND CONDITIONS, AND IN ACCORDANCE WITH YOUR QUOTE OF 3-17-58

MAIL THREE (3) COPIES OF YOUR INVOICE GIVING ITEM NUMBERS, DESCRIPTION, AND UNIT PRICE EXACTLY AS SHOWN ON THIS ORDER. Form 6589-90

TERMS Net 30 days

ROUTING Motor Common Carrier

DELIVERY 3-11-58 (BUYERS PLANT)

ADDRESS ALL CORRESPONDENCE PERTAINING TO THIS ORDER TO THE ATTENTION OF: Madison, Illinois BUYER

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	AMOUNT
			Confirmation of telephone order entered with Mr. Wlaskoch by our Mr. Johnson on 3-17-58. DO NOT DUPLICATE		
			Requisition Number IB 1251-4		
1.	Approx. 37 (1 pc.)	1bx.	Plate, Magnesium Alloy .750" x 48" x 48" Alloy #24-31A-76	4.805	
			1 Sawing Charge	6.00	
2.	10	1bc.	welding rod, 1/8" Magnesium Alloy #24-31A	10.00	

SHIP AS PERMITTED BY U.S. Atomic Energy Commission c/o Mallinckrodt Chemical Works Uranium Division U-52990-A Holden Spring, Missouri

Kerlin 6-5-2 (1636-4) Copeland-408 (204)

DO NOT Certified Under AEC Regulation I

STOPS COPY

TDCC 000316

Slide 2-B/C

1.	Approx. 37 (1 pc.)	lbs.	Plate, Magnesium Alloy .250" x 48"x48" Alloy #Mg-211A-T8	6.005
			1 Sawing Charge	6.00
2.	10	lbs.	welding rod, 1/8" Magnesium Alloy #Mg-111	10.00

DOW MAGNESIUM ALLOY TO MCW

Plate, Magnesium Alloy .250" x 48"x48"
Alloy #Mg-211A-T8

— ?H —

SLIDE 3

Pangea June 2005 Thorium Inventory

Table 4-1
Source Material Inventory

Location Found	Description of Material
Building 1	Mg-Th Standards (2" x 1" x 4") (4) pcs
	Bundle of 16" Thoriated Welding Rods (3) pcs
Building 4	Aluminum L shaped Block
Building 5	Aluminum L shaped Block
	Aluminum hand tool (2) pcs
	2" x 7" x 8" Bar Stock
	2" x 2" x 8" Bar Stock
	2-1/2" x 2-1/2" 53" Bar Stock
	3-1/2" Dia x 16" Bar Stock
	3/4" x 1-1/2" x 8' -11" Bar Stock
	1/8" x 5" x 55" Sheet stock
Building 6	1/2" x 16" (home made) Wrench
	2" x 2" x 6" Bar Stock
	3" x 4" x 8" Bar Stock
	3" Dia Round 10" Bar Stock
	Shelf Flashing from Mens locker Room
	Woodruff key plugged with Mg-Th
	Inspection Cart Drawer
Steel Mandrel Cylinder plugged with Mg-Th	
Building 6 Machine-Shop	1-1/2" x 2 1/2" x 3" Bar Stock
	1-3/4" x 2" x 12" Bar Stock

SLIDE 4

Pangea June 2005 Thorium Inventory

Table 4.1, pp 14-15 of 39 (continued)

Building 7	1" x 2-3/4" x 13' Bar Stock
	1" x 2-13/16" x 14' Bar Stock
	Shelf Flashing from Mens Room Locker
Building 8	1/8" x 18" x 30-5/8" Plate Stock
	Stepped Machined gauge (2) pcs
	1" x 15" dia plates (9) pcs
	Inspection cart (handle made from Mag-Th)
Building 9 Machine-Shop	2.5" Bar Stock/ Machined
	12" Dia Round Casting
	4" x 5" x 6" Bar Stock
	6" x 6" x 18" Bar Stock
	16" Dia x 1" Blank
	(a) Metal gauge Paper packaging
Location Found	Description of Material
Building 9 Machine-Shop – cont.	(b) Surface area of Metal guage
	1-1/2" Th x 3" x 12" Bar Stock
Building 10	Drawer Dividers 1/16" x 1-3/4" x 10-1/2" (7) pcs
	Mandrel plugged with Mg-Th (22" dia x 14" tall)
	Cover Plates - Oiler Sump (48" x 52")

Dow SEC-00079: Summary

- Dow Madison site contracted for uranium work with AEC (MCW) during 1957-60, **and**
- Dow Madison supplied AEC (MCW) with sintered magnesium and magnesium -?H21 thorium alloy during 1957 and 1958, **and**
- Commercial and AEC thorium waste streams are inseparable in still contaminated site, **thus**
- **Dow SEC should cover 1957-1998** throughout uranium/thorium production & residual periods

PETITIONERS INITIAL RESPONSE TO THE
NIOSH EVALUATION OF DOW SEC-00079
RECEIVED APRIL 13, 2007

-- Dan McKeel, 4/17/07 --

Overview of Specific Concerns and Objections

1. The qualifications of the single author, James Mahathy of ORAU, and of the ORAU reviewer Michael S. Kubiak, are not stated except that they work for ORAU.
2. The report (page 11) states NIOSH does have “access to the air monitoring and dose rate data” from both Dow and AEC but does not cite the source or provide the actual the data – where is this data? Petitioner needs a copy as soon as possible. The possession of this monitoring data was not disclosed to the petitioner even though he asked for all data that OCAS/NIOSH possessed about the Madison site and was assured by Mr. Elliott and Laurie Breyer there was none.
3. The affidavit and worker transcript richly documented Rocky Flats connection and shipments of hundreds of tons of magnesium-thorium alloy sheets from Madison to RF and return shipments, plus movements and exchanges of personnel between the two sites, is not mentioned. This was further documented at the February 8, 2007, “Dow SEC Update” session of the ABRWH meeting in Mason, Ohio, near Cincinnati. Petitioner provided a copy of the PDF file of his Powerpoint presentation from that day on 2/8/07 to Chris Elliott of OCAS, who assured him this data would be shared with all parties who would be evaluating the SEC petition.
4. The primary source of the opinion that all thorium work at Dow was “commercial” is not given other than reference to a FUSRAP report that itself failed to cite any primary sources for this “fact.” Petitioner provided the contact information to Mr. Elliott at OCAS of the two people he met with from the St. Louis District, Army Corps of Engineers, in June 2006 regarding this matter (Mark Wunch and Gregory Raimondo). Petitioner asserts that 11 Dow workers have provided affidavits attesting to shipments of “truckloads” of magnesium-thorium alloy from Dow Madison to Rocky Flats in Colorado, a facility that was only engaged in AEC activities, and in which Dow Chemical was prime contractor between 1951-75.

These 11 affidavits will be delivered to Larry Elliott at OCAS on April 17, 2007 to supplement the primary initial documentation offered in McKeel’s Powerpoint presentation on Feb. 8, 2007 at the Mason, Ohio, ABRWH meeting that was given to OCAS the same day.

The petitioner asserts the 11 affidavits from former Dow, Conalco and Spectrulite Consortium, Inc. workers constitute clear evidence that part of the Dow (Madison) thorium was AEC related. Petitioners have vigorously sought confirmation that such a contract existed, believing it must have been for the RF work force to be able to take over the Dow Madison extrusion presses and postpone other Dow work while doing so (Dow affidavits attest to this fact). Information that a Dow (Madison)-Rocky Flats-AEC contract existed was sought from both Dow Midland in two campaigns in 2006 and 2007, and from DOE through the FOIA process (one is currently pending), and from a series of interactions with Glenn Podonsky, Roger Anders and Libby White. These efforts resulted in the release of the Dow Chemical Rocky Flats

primary contract and certain other documents that were partly responsive to a letter to DOE from Illinois Senator Barack Obama. Those documents have been posted on the OCAS website. The petitioner wonders why Mr. Mahathy did not cite the Dow Contract and other documents that were posted on OCAS well before the evaluation report was finalized at NIOSH?

Of equal relevance, the DOE Office of Worker Advocacy website Considered Sites Database says that Dow provided to Mallinckrodt “metal magnesium metal products.” Dr. McKeel wrote Glenn Podonsky and Libby White of DOE a letter dated 2/24/07, with copies to Larry Elliott and Laurie Breyer of NIOSH, seeking clarification of this statement. The letter has not yet been answered despite several follow up requests to do so. “Magnesium” metal product shipped from the Madison site to clients was most often magnesium-thorium alloy rather than pure magnesium metal. **This statement strongly implies that Dow (Madison) did supply another AEC facility besides Rocky Flats, that is Mallinckrodt Chemical Works (MCW), which is now recognized as two DOE EEOICPA sites (Destrehan Street and Weldon Spring) whose former worker claimants are eligible for part E coverage, with magnesium-thorium alloy providing additional proof that part of the Dow (Madison) thorium waste stream was AEC related.**

Furthermore, petitioner asserts the impossibility of separating the commercial, military and AEC (MCW, RF) related thorium streams at Dow (Madison). This fact is bolstered by cleanup reports by Pangea Group of St. Louis in 2003, two in March and June of 2005, and possibly one in 2006 or 2007 related to the current ongoing thorium license decommissioning activities that petitioner alerted NIOSH to in his 8/22/06 NIOSH Outreach meeting and 2/8/07 Dow SEC Update ABRWH Powerpoint presentations. Copies of the two Powerpoint files were furnished on the days of presentation to OCAS./NIOSH and Mr. Elliott. Petitioner was assured these materials would be available to all parties (hence to Mr. Mahathy, involved in assessing the Dow SEC-00079 petition. Why did Mr. Mahathy not cite them?

5. **The report does not adequately address why the residual uranium contamination period should not be included in the Dow Madison SEC-00079 Class definition.** The SEC coverage during the residual period contamination period, that was promised by Larry Elliott in his first delay letter, and acknowledged to be a known concern of the petitioner, is not addressed but briefly (on page 14, paragraph 1) and inadequately so, in this report (see concern #4).

At the 2/8/07 Dow SEC Update session Mr. Elliott confirmed in public that EEOICPA does not contain language that explicitly excludes the residual period from SEC coverage. There is a logical and scientific discrepancy whereby NIOSH does include the residual contamination period for ordinary dose reconstructions on individual claimants but routinely excludes it from coverage under SECs (has never been covered under any SEC awarded thus far according to Richard Miller, formerly of GAP). After the 2/8/07 Dow session, both Dr. Paul Ziemer and Dr. Lewis Wade came up to the petitioner and gave their word the Board was considering covering “the rest of the Dow workers” (i.e., those who will be excluded from the limited 1957-60 class definition) by “including the residual uranium contamination period that extends from 1961-1998” and is covered by ordinary dose reconstructions. I expect them to honor their word.

6. Petitioner provided NIOSH with a complete list of AEC, NRC and Illinois state (IEMA, Nuclear Safety Division) thorium licenses granted to Dow, Conalco and SCI in his 8/22/06 and 2/8/07 Powerpoint presentations to NIOSH and the Advisory Board. Why were these licenses not examined and cited as references by Mr. Mahathy? Why does Mr. Mahathy not refer to these

Powerpoints? Has he not been granted access to and alerted about their existence? Petitioner states this is a serious concern regarding the level of diligence that went into the preparation of this evaluation report and assessing whether or not any of the Dow Madison thorium work was AEC related. Not doing so in turn affects the decision whether or not the Class definition should include the residual thorium contamination period that overlaps with the residual uranium period. Note also that the petitioner was not informed that Mr. Mahathy was the sole author/owner of the NIOSH evaluation report of Dow SEC-00079 until an electronic copy was provided to him on 4/13/07.

7. The evaluation report on page 10 states that Thorium was used only in Building 6, the “pot room” and the 40 acre plot. This is not correct. Rather, as noted in McKeel’s Powerpoints of 8/22/06 to NIOSH at the Dow Outreach session (transcripts of which should be available to Mr. Mahathy) and 2/8/07 to the Advisory Board, Pangea Group’s June 2006 thorium survey revealed thorium metal throughout the Madison/Spectrulite facility in a much wider disposition. Again, one wonders whether Mr. Mahathy has read the Pangea reports or McKeel’s two Powerpoints? Larry Elliott recently claimed these reports were not germane to the SEC evaluation, but obviously they are in providing a detailed inventory of the disposition of thorium throughout the entire Madison site complex of buildings and the 40 acre plot.

8. All of the documentation provided by the petitioner to OCAS/NIOSH is not acknowledged including the 7/21/06, 8/11/06 and 8/22/06 NIOSH Outreach meeting transcripts that are still being redacted 4.5 months after receipt by OCAS, by the Atlanta CDC/ATSDR office. Efforts to get that office to provide a release date have been unsuccessful despite repeated attempts through Laurie Breyer’s OCAS and Lyn Armstrong’s CDC/ATSDR FOIA offices.

9. OTIB-6000 and the Dow site-specific appendix are not mentioned for how NIOSH believes it can calculate accurate and timely dose reconstructions for extruded and straightened uranium rods. Where are the data and guidance documents that would allow this calculation?

10. The missing (marked “Reserved”) highly relevant section 7.2 on Thorium of OTIB-6000 is not mentioned. The petitioner has repeatedly requested to know when this key section will be made available to him and to the public. NIOSH has failed to respond.

11. The four NRC documents that delayed presentation of the SEC to the Board in February 2007 and the delivery of the Dow SEC-00079 evaluation report are not discussed as they should be. What action was taken to investigate them.

12. The saga of negotiations with Dow, including Stuart Hinnefeld’s 1/30/07 letter to Mr. Blackhurst and the Dow Senior Managing Council in Midland, Michigan, the Kusmierczak-McKeel-Dow Midland 10/2/06 telephone conference call, and the two closure conferences with David Bernick on 3/28/07 and 4/5/07 are not mentioned at all. Also not mentioned is the 61 page PDF SINEW and the petitioner supplied to OCAS and Mr. Elliott to document the 2006 negotiation SINEW and the petitioner and Senator Obama’s office had in the 2006 and 2007 negotiations were not mentioned. Nor are the exchanges documented between the petitioner, NIOSH and the ABRWH, Paul Ziemer and Lewis Wade, made February 8, 2007 regarding the issuance of a Section 7384w subpoena to Dow mentioned. The transcript of the highly relevant

2/8/07 ABRWH still has not been released. This is unconscionable. ALL documents used and that are available to be used to prepare the SEC evaluation report are supposed to be listed.

13. Where is the documentation for the statement that Dow (Madison) was sold by Dow to Conalco in 1969? Petitioner believes the correct sale date was 1973.

14. Why does the evaluation report not address the fact that USACE found uranium and thorium dust co-located in the Building 6 rafters in the 2000 FUSRAP closure report for the Madison site? The ORNL radiological site survey documented this fact as well.

15. Page 14 mentions "...interviews of former Dow Madison workers..." but does not provide details. The petitioner wants to know who these workers were and the dates of the interviews and who they were conducted by?

16. Why is the 1993 Environmental Restoration Group (ERG, Albuquerque, NM) cleanup of the 40 acre plot near Building 7 not mentioned? Dow paid more than \$17 million towards this effort, long after the Madison site had been sold, because of their recognized liability (*Dow-Aetna lawsuit abstract furnished by Linda Dean*). More than 800 rail cars of magnesium-thorium sludge were removed offsite in operations that further exposed SCI workers to radiation. Why was this report not captured and used in the assessment of the Dow SEC-00079 petition by Mr. Mahathy? Again, concerns are raised about the level of thoroughness of the evaluation report by ORAU and NIOSH.

17. The report does not mention that in the Quit Claim deed of 1951 whereby Dow acquired the Madison plant from GSA there is mentioned that Dow was part of the National Industrial Reserve and the National Security Clause. The implications of these provisions with respect to U.S. Government ownership and/or a proprietary interest in the Madison site between 1951 and 1959 when these two provisions were in effect.

18. Why did Mr. Mahathy not interview the petitioner, Dan McKeel, who is by now a recognized site expert on the Dow, Madison site?

19. The report should mention explicitly that the Dow Madison site does not have a site profile TBD, and that the site is covered under Battelle Task Order-16 that is currently in its final stages. It should be further mentioned for factual completeness that only two DR have been done. The fact that Lavon Rutherford first notified Dan McKeel on 9/6/06 that an 83.14 SEC would be awarded for Dow (Madison) should be noted. Furthermore, more than two months elapsed after that before a Form A was sent to the eventually selected petitioner (the first candidate was eliminated because his employment started after 1960). It then took four more weeks for the petitioner, who had not attended any worker meetings or signed an affidavit, to complete Form A and sign the SEC Authorization form naming Daniel W. McKeel, Jr.

20. The petitioner strongly disputes that ORAUT-OTIB-0004 is scientifically valid to reconstruct uranium doses at Dow for the following reasons: (a) In the whole history of EEOICPA NIOSH has only completed two dose reconstructions for Dow Madison claimants and OTIB-0004 has been available since June, 2004, (b) Larry Elliott has said that this TIB cannot be

used to reconstruct doses at General Steel Industries which also did work on MCW uranium ingots, (c) The proper document to use is Battelle TIB-6000 with the Dow specific appendix.

21. Why does Mr. Mahathy believe that Silverstein 1957 refers to Dow Madison operations rather than to Dow in general that had at least three other thorium sites (Bay City and Midland, Michigan, and Walnut Creek, California)? The latter facility processed both uranium and thorium ores for the AEC according to the DOE Considered Sites Database.

22. Petitioner notes that the existence of DOW workplace monitoring data in Section 5.3 on page 12 is at odds with Mr. Elliott's repeated statements that OCAS had no dosimetry data for the Dow Madison site. **Petitioner s are supposed to be provided by NIOSH with all unclassified data that NIOSH possesses about the Dow Madison site.** This was not done. Petitioner was improperly not informed this important data existed. The question of whether all of the Dow Madison thorium is "commercial" and is not related to AEC activities is still in dispute. Petitioner has cited evidence that Dow magnesium-thorium alloy was provided to two AEC facilities (MCW in Missouri and Rocky Flats in Colorado). This evidence will be presented to the Board on May 3, 2007 when the Dow SEC will be voted upon.

Request for Immediate Release of Documents to the Petitioner (by Overnight Courier)

1. An INDEX of every document that NIOSH, ORAU or Battelle possesses regarding the Dow (Madison) site.
2. A copy of every document mentioned in the References on pages 17 and 18 of the evaluation report. (Note: The AEC 1960 document defining the thorium source term cited has figures that massively underestimate the thorium estimates of workers in the 7/21/06, 8/11/06 and 8/22/06 transcripts and in their 56 affidavits cited in part in the 2/8/07 Dow SEC Update presentation Dan McKeel made to the Advisory Board.)
3. The air monitoring data that NIOSH alleges it “does have access to the air monitoring and dose rate data” on page 11, paragraph 1, of the evaluation report. Please send Dan McKeel these complete data and explain why the existence of these data was not acknowledged and provided previously when Mr. Elliott was asked for Dow dosimetry data.
4. A biographical sketch, resume and/or formal Curriculum Vitae of the preparer and owner of this report, James Mahathy (Lead Technical Evaluator) and of Michael S. Kubiak, who completed the ORAU review. Validate his qualifications to prepare this report as a site expert and the full extent of his efforts to capture relevant data. For example, did he speak with David Bernick?
5. Any and all primary source documents (other than secondary FUSRAP/USACE 2000 reports) that validate NIOSH’s statement that all thorium work at Dow (Madison) was “commercial,” that is, not AEC related.
6. Provide an answer to the petitioner why the coverage under the residual contamination period was not discussed in detail in the report as Mr. Elliott promised it would be.
7. The immediate release of the 2/8/07 ABRWH meeting transcript that covers the Dow SEC Update session conversations between McKeel, Robert Stephan, the Advisory Board and the Advisory Board’s tasking of SC&A to perform a targeted review of the Dow SEC. Petitioner has requested the release of this vital document repeatedly.
8. I will make a FOIA request if necessary for every and all communications (letters, Faxes, e-mails) between NIOSH and DOL regarding the Dow SEC-00079 Class definition.
9. A FOIA request if necessary for every and all communications (letters, Faxes, e-mails) between NIOSH, ORAU and Battelle regarding the Dow (Madison) site SEC-00079 petition and dose reconstructions for the site held between September 1, 2006, and today (4/16/07).

10. An explanation why the Rocky Flats connection claimed by the petitioner based on affidavits sent 4/17/07 to NIOSH and described to them on 2/8/07 at the Mason Ohio ABRWH session "Dow SEC Update" was not adequately addressed?
11. An explanation why the result of the Hinnefeld-Dow 1/30/07 letter and the Dow negotiations with David Bernick were not addressed in the evaluation report?
12. Will the single preparer of the evaluation report, Mr. James Mahathy, be present on May 3, 2007 at the Board meeting to answer questions from the Board and the petitioner and possibly SC&A? His presence is crucial to answer questions posed to him by Dr. McKeel and the petitioners.
13. Regarding the alleged peer review by NIOSH of this ORAU single preparer Dow SEC-00079 evaluation report (Mr. Mahathy), who if anyone besides Lavon Rutherford was on the NIOSH peer review team and how much time did they spend peer reviewing the report? Was there any written correspondence documenting this peer review process (should I make this part of a FOIA request)?
14. The petitioner wants a complete listing of all interviews that ORAU and/or NIOSH conducted with former Dow workers other than the 8/22/06 Outreach meeting in Collinsville, IL.

Dan McKeel

4/17/07

Daniel W. McKeel, Jr., M.D. DATE
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1. An INDEX of every document that NIOSH, ORAU or Battelle possesses regarding the Dow (Madison) site. **To be addressed/handled by the FOIA Office**

2. A copy of every document mentioned in the References on pages 17 and 18 of the evaluation report. (Note: *The AEC 1960 document defining the thorium source term cited has figures that massively underestimate the thorium estimates of workers in the 7/21/06, 8/11/06 and 8/22/06 transcripts and in their 56 affidavits cited in part in the 2/8/07 Dow SEC Update presentation Dan McKeel made to the Advisory Board.*) **To be addressed/handled by the FOIA Office**

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4. A biographical sketch, resume and/or formal Curriculum Vitae of the preparer and owner of this report, **James Mahathy** (Lead Technical Evaluator) and of **Michael S. Kubiak**, who completed the ORAU review. Validate his qualifications to prepare this report as a site expert and the full extent of his efforts to capture relevant data. For example, did he speak with David Bernick? **You may check the biographs and disclosure forms for these two contract staff individuals on the ORAU website at <http://www.oraucoc.org/>**

5. Any and all primary source documents (other than secondary FUSRAP/USACE 2000 reports) that validate NIOSH’s statement that all thorium work at Dow (Madison) was “commercial,” that is, not AEC related. **To be addressed/handled by the FOIA Office**

6. Provide an answer to the petitioner why the coverage under the residual contamination period was not discussed in detail in the report as Mr. Elliott promised it would be. **The Evaluation Report does provide adequate treatment of the residual contamination period – see note at top of page 14, last sentence of section 6.1, last sentence of 1st paragraph of section 6.2. This Evaluation Report identifies a class for which under 42 CFR part 82, section 82.12, NIOSH has identified a class under 42 CFR part 83, section 83.14 for which dose reconstruction (internal thorium dose) can not be reconstructed. As with 83.14 SEC classes, the intent is to add the class as expeditiously as possible once a component of dose which can not be reconstructed is identified. As we work through the “partial dose reconstructions” for non-presumptive claims, we will demonstrate our ability to reconstruct uranium dose during the covered AEC period and the residual AEC contamination period.**

7. The immediate release of the 2/8/07 ABRWH meeting transcript that covers the Dow SEC Update session conversations between McKeel, Robert Stephan, the Advisory Board and the Advisory Board's tasking of SC&A to perform a targeted review of the Dow SEC. Petitioner has requested the release of this vital document repeatedly. **As mentioned during the phone call yesterday, the transcript will be made available as soon as it is delivered to NIOSH.**

8. I will make a FOIA request if necessary for every and all communications (letters, Faxes, e-mails) between NIOSH and DOL regarding the Dow SEC-00079 Class definition. **To be addressed/handled by the FOIA Office**

9. A FOIA request if necessary for every and all communications (letters, Faxes, e-mails) between NIOSH, ORAU and Battelle regarding the Dow (Madison) site SEC-00079 petition and dose reconstructions for the site held between September 1, 2006, and today (4/16/07). **To be addressed/handled by the FOIA Office**

10. An explanation why the Rocky Flats connection claimed by the petitioner based on affidavits sent 4/17/07 to NIOSH and described to them on 2/8/07 at the Mason Ohio ABRWH session "Dow SEC Update" was not adequately addressed? **As discussed by phone, DOE and DOL, not NIOSH, have responsibilities for determining what facilities and time periods are covered by EEOICPA; thus, this is outside the purview and responsibility of NIOSH and without factual information/documentation concerning exposure related to the AEC operations at the facility (beyond what we already have) this has no bearing on the Evaluation Report for SEC petition.**

11. An explanation why the result of the Hinnefeld-Dow 1/30/07 letter and the Dow negotiations with David Bernick were not addressed in the evaluation report? **At this point in time, Dow headquarters has not provided any new information for consideration relevant our ability to reconstruct dose at Dow Madison and to the SEC petition evaluation. Thus, there is nothing germane from this interaction to be included in the Evaluation Report.**

12. **Will the single preparer of the evaluation report, Mr. James Mahathy, be present on May 3, 2007 at the Board meeting to answer questions from the Board and the petitioner and possibly SC&A? His presence is crucial to answer questions posed to him by Dr. McKeel and the petitioners. No, this individual will not be present. As stated yesterday, the Evaluation Report is a NIOSH document and will be presented to the Board by the NIOSH OCAS Technical Program Manager, Stu Hinnefeld .**

13. Regarding the alleged peer review by NIOSH of this ORAU single preparer Dow SEC-00079 evaluation report (Mr. Mahathy), who if anyone besides Lavon Rutherford was on the NIOSH peer review team and how much time did they spend peer reviewing the report? Was there any written correspondence documenting this peer review process (should I make this part of a FOIA request)? **To be addressed/handled by the FOIA Office**

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Dan McKeel

4/17/07

Daniel W. McKeel, Jr., M.D.

DATE

Dow SEC Authorized petitioner

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