

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

From: DanMcKeel2@aol.com
Sent: Sunday, June 13, 2010 9:40 PM
To: NIOSH Docket Office (CDC); Katz, Ted (CDC/NIOSH/OD); melius@nysliuna.org
Cc: danmckeel2@aol.com
Subject: Dow Docket 113 submission
Attachments: McKeel_DowSEC_6.25.08h.ppt.pdf

NIOSH DOCKET Officer
Ted Katz, ABRWH DFO
Dr. James Melius, ABRWH and SEC Issues work group chair

June 13, 2010

I am submitting to Dow Docket 113 my 6/4/08 SEC-00079 in-person presentation as an Acrobat readable PDF file generated from Powerpoint. This is the procedure I understood would be honored at the CDC NIOSH Docket Office during earlier correspondence with Ted Katz. There are other similar Powerpoint/pdf-converted files posted on the OCAS website. One of them is a Larry Elliott Powerpoint from the era when he directed OCAS. I will appreciate knowing this file has been received and will be posted to DOCKET 113.

I also request that Ted Katz distribute this file to all members of the SEC Issues work group that is currently deliberating whether or not to recommend extending SEC-00079 to cover the residual contamination periods for AEC-MCW uranium and thorium at the Dow Madison IL AWE site. My June 2008 presentation contained information that is still relevant to the date of the end of the Dow residual period for thorium. The June 2008 SEC presentation also deals with the conditions that existed with respect to the amount of the thorium source term at Dow that between January 1, 1961, through June 2008 when the Dow AEC/NRC thorium license was terminated by IEMA (IL Emergency Management Agency) Nuclear Safety Division, acting as agent for the NRC.

Thank you,

-- Dan McKeel

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Dow SEC-00079 extension

SINNEW Co-Petitioner

Daniel W. McKeel, Jr., MD

ABRWH St. Louis, June 25, 2008



ORAU
HK31A
~1980

\leq Mg-Zr-Thorium alloy (ORAU)

Part 1

NIOSH's ability to reconstruct uranium and thorium internal and external doses during the residual radiation contamination period

Few Dow Dose Reconstructions

- Total Dow DR to date: (DOL) 3 of 149 to NIOSH; NIOSH states 111 for DR from DOL
- No partial DR associated w/Dow SEC-79
- (3 attempts to confirm above prior to mtg)
- Why such low performance? OCCAS reports remaining non-SEC claims are “pending” due to “updating of methods” and DR will be done “soon.” Why is updating necessary?

DOL Dow EEOICPA Stats - 6/22/08

Part B - NIOSH Actions

STATUS OF NIOSH REFERRALS

Cases Referred to NIOSH

149

Cases Returned from NIOSH

With Dose Reconstruction (DR)

3

Being Re-worked for Return to NIOSH*⁶

0

Withdrawn from NIOSH (no DR)*⁷

48

Total

51

Cases Currently at NIOSH

Initial/Orrinal Referral to NIOSH

90

Reworks or Returns to NIOSH *⁶

8

Total

98

Dow Petitioners Summary - 1

- NIOSH admitted to Board it *could not* reconstruct internal thorium doses 1957-60 (5/4/07) during the AEC uranium contract period; SEC recommended
- Petitioners claim to Board in May 2007 was some Dow Madison thorium was AEC-related
- Board tasked SC&A to review NIOSH ER.
- SC&A held Dow Outreach meeting 6/20/07 in IL
- NIOSH issues first Addendum to ER 8/06/07

Dow Petitioners Summary - 2

- DOE-HSS archives research and two FBI studies led to Glenn Podonsky 1/8/08 letter to Peter Turcic, DEFOICP at DOL Director, indicating that:
 - (a) AEC used thorium alloy in nuclear weapons from 1956-1969 (exact details where, for what not given)
 - (b) Dow **thorium alloy plate was supplied to AEC** via Mallinckrodt Chemical Works Uranium Division purchase orders in 1957-58 (Dow HQ produced the PO)
- That Dow II, thorium alloys were used in nuclear weapons was accepted by NIOSH and by DOL

Excerpts: DOE-HSS 1/8/08 Letter

During its operations, Mallinckrodt Chemical Works Uranium Division conducted a variety of activities that supported research, development, and production programs for the nuclear weapons complex. In addition, the Office of Health and Safety, within the Office of Health, Safety and Security, has confirmed that magnesium-thorium alloys were used directly in atomic weapons from 1956-1969, which is consistent with the 1957 and 1958 dates of the purchase orders.

conclude for the years 1957-1958 that Dow Chemical Company in Madison, Illinois, probably produced a material for use by the United States, that the material emitted radium, and could have been used in the production of an atomic weapon. Therefore, we conclude that Dow Chemical Company in Madison, Illinois, meets the definition of an AWF, as defined by 42 U.S.C. § 73841(4), based on their work with magnesium-thorium plates and sheets.

Comments: DOE-HSS 1/8/08 Letter

- NIOSH and DOL accepted that some Dow Madison thorium thorium was AEC-related.
- DOE states thorium alloys were used 1956-1969 in nuclear weapons work.
- NIOSH focused on only the two 1957-58 MCW thorium alloy purchase orders, ignoring the fact that other such POs may exist, the most claimant favorable assumption. The fact that Dow HQ and not DOE produced the key MCW-AEC thorium alloy Purchase orders buttresses this possibility.

NIOSH 2nd Dow SEC Addendum

- On 6/3/08 NIOSH released its second SEC Addendum, again authored solely by ORAU and James Mahathy w/NIOSH peer review
 - To my knowledge, Mr. Mahathy has never visited the Madison plant in Illinois nor has he interviewed any Dow workers or petitioners
 - Almost all of the “Dow” monitoring data cited was from other plants than the Dow Madison SEC site. Petitioners question use of such data

Rebuttal to NIOSH SEC Recommendation - 1

- Addendum 2 doesn't state clearly how thorium internal doses can be bounded; NUREG 1717 and NUREG 1400 were not sufficient to bound internal thorium in original ER or now (our view)
- Air and other monitoring data is largely not from Dow Madison. NIOSH as no [zero] Dow film badge or bioassay data. Other Dow facility operations (Silverstein '57) are not proven to be similar to Dow Madison thorium operations
- The Dow Meld (aka "pot") room description in Add-2 contains errors (ex. six rather than 10 pots)

Is Dow ‘Madison’ Data Authentic?

- **Silverstein 1957** questions and comments:
 - Madison site workers don’t remember this man who was supposed to be their Rad Safety chief
 - Was air data actually measured in Madison, IL?
- **Shrader 1959** thoron air data:
 - Was all data from the Dow Madison IL site ?
 - Data collected before 1959 can’t be extrapolated to be truly representative of operations over the Dow residual time span

Major Thorium Dose Error - 1

- Page 25 of the 6/3/08 Addendum reads:
 - “Internal exposures to thorium during the residual period resulted from corrosion of stored material, re-suspension of dust, scrap handling, scrap cutting, and loss of containment of disposed materials.”
 - Above ignores the Dow AEC/commercial thorium streams were mixed and inseparable. Thus, all thorium operations must be bounded->

Major Thorium Dose Error - 2

- Therefore, NIOSH also must bound thorium-232, thorium-230 and thoron exposures through most of the residual period when thorium alloy HK31A and HM21A continued the same as 1957-60 at Dow, Conalco & Spectrulite Consortium
- Internal and ingestion path thorium should be calculated for ALL casting, extrusion & rolling throughout the residual time period

Rebuttal to NIOSH SEC Recommendation - 2

- NIOSH has performed to date only 3 total dose reconstructions (DR) of 149 cases assigned to it
- NIOSH hasn't addressed high intakes from numerous thorium fires and explosions with smoke and fumes that caused plant shutdowns
- NIOSH Addendum 2 did not give concrete examples how Dow thorium doses could be bounded in Extrusions, Casting, Rolling Mill with different exposures and operations than other sites
- Dow IL extrusion presses were not hooded and some presses were unique (the "large press")

Rebuttal to NIOSH SEC Recommendation - 3

- Transparency has been low, secrecy way too high
- **Example #1:** CDC FOIA office has not supplied documents to item 9 submitted to them 4/17/2007
- **Example #2:** NIOSH refused to provide me or Senator Obama's staff with names of "State of Illinois" entity/ies addressed in a 2/4/08 inquiry letter, FOIA process took 66 days to reach me
- OCCAS and/or CDC FOIA withheld 4/10/08 letter to IEMA + all 62 Dow HQ docs put in SRDB on Jan. 9, 2008, docs requested in my 5/16/08 FOIA

Rebuttal to NIOSH SEC Recommendation - 4

- IEMA Feb. 2008 Closeout Report for Spectrulite's IL thorium license was not cited in the 6/3/08 Addendum 2 by NIOSH when this report is surely more definitive than a Pangea e-mail memo a month later
- In my CDC 08-00862 FOIA appeal filed 6/20/08 I point out that many 6/3 Appendix 2 responsive documents were withheld

Rocky Flats Th Shipments Ignored

- DOE has not addressed Dow worker sworn affidavits and testimony that “truckloads” of identical thorium alloys (HK31A, HM21A verified by the FBI) to those DOE admits in the 1/8/08 HSS letter to DOL were sent to MCW and the AEC for nuclear weapons use, were also shipped from the Madison plant to Rocky Flats DOE site in Colorado

Petitioner Summary & Conclusions

SEC-00079 - [1] Dose Reconstruction

- NIOSH could not dose reconstruct thorium internal doses in May 2007 and erred in stating they can now *accurately* bound internal thorium doses at Dow Madison in IL in the 6/3/08 second Addendum report to the SEC-79 evaluation
- The Pot Room description is flawed and thorium fires/explosions w/high intakes are not considered
- SC&A has not formally reviewed/concurred with the first or second Addenda to the Dow Madison ER. This should be done in fairness to the workers

PART II

Definition of the Residual Contamination Period By NIOSH

NIOSH's responsibility

----- Original Message -----

From: Turcic, Peter - ESA <Turcic.Peter@dol.gov>

To: Stephan, Robert (Obama); Pat.Worthington@hq.doe.gov

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Cc: jkusmierczak@simmonscooper.com <jkusmierczak@simmonscooper.com>;

deb.detmers@mail.house.gov <deb.detmers@mail.house.gov>; lje1@cdc.gov

<lje1@cdc.gov>

Sent: Tue Apr 15 11:59:42 2008

Subject: RE: Dow Covered Period for AEC thorium, reply

As for the period of residual contamination, DOL accepts that thorium was in fact part of the AEC work and thus should be covered as part of the residual contamination at the facility. As for the period of time that residual - be it thorium or any other contamination - that is totally in the preview of NIOSH.

Dow Proposed Residual Periods

- DOE initial facility database: 1961-1998
- NIOSH Dec-06 report to Congress: 1961-1998
- SEC-79 evaluation report, Addendum 2: issued 6/3/08: residual period to be 1961 - Oct. 21, 2006 based on 3/3/08 Pangea e-mail.
- IEMA closeout report by Pangea dated Feb. 2008
- Consider: IEMA required added decommissioning work in 2007 (ended Nov. 9). Site was released for unrestricted use on June 8, 2008.

Petitioner Summary & Conclusions SEC- 00079 - [2a] Residual Contamination

- Primary decommissioning according to Pangea resulted in only 99% cleanup by late October 2006
- When confronted with this accomplishment, IEMA ordered Pangea to perform two added tasks for the soil and dross room that were not completed until Nov. 9, 2007. We believe IEMA considered significant (*) contamination had to be removed in 2007. (* 10 C.F.R. pt. 835, Appendix D)
- IEMA was unwilling to certify 100% completion and release the site for unrestricted use, the goal of license termination, until 6/8/08 (this month)

Residual Contamination Std. [2b]

NIOSH believes that contamination levels at designated facilities in excess of those indicated in 10 C.F.R. pt. 835, Appendix D (Occupational Radiation Protection, Surface Contamination Values) indicate that there is "significant contamination" remaining in those facilities.

“NIOSH believes that contamination levels at designated facilities in excess of those indicated in 10 C.F.R. pt. 835, Appendix D (Occupational Radiation Protection, Surface Contamination Values) indicate that there is “significant contamination” remaining in those facilities.” - Page 4 of 9 main file, Dec 2006 NIOSH (rcontam1206.pdf): **Report on Residual Radioactive And Beryllium Contamination at Atomic Weapons Employer Facilities and Beryllium Facilities. John Howard, Director**

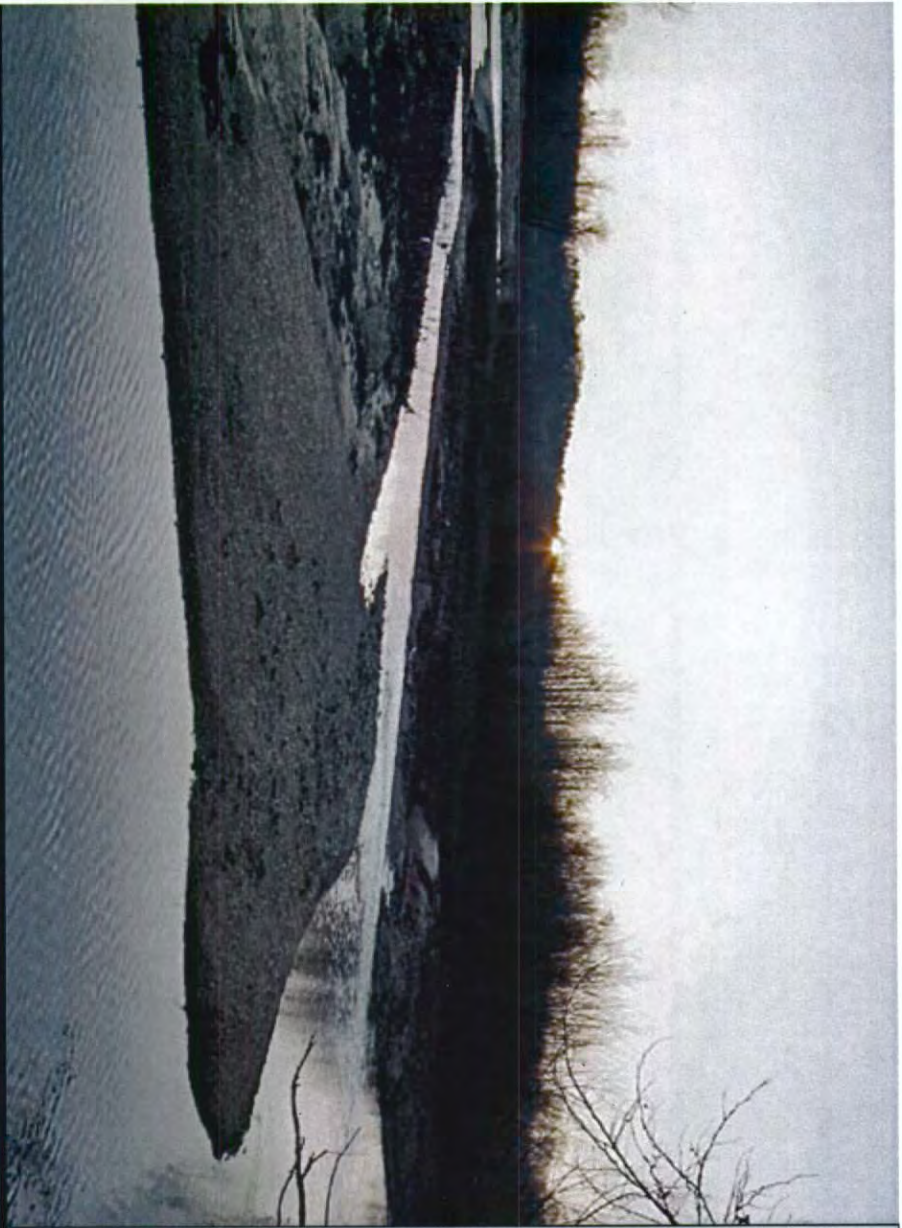
Petitioner Summary & Conclusions

SEC-00079 - [3] Residual Dates

- Petitioners therefore believe that the date **November 9, 2008**, when cleanup tasks were 100% completed, or **June 8, 2008**, the site unrestricted use release date, are more appropriate dates to end the Dow residual contamination period for the mixed AEC and commercial/military waste stream at Dow, Conalco and Spectrulite Consortium.

Petitioner Remaining Issue: Extended Class Coverage for SEC-00079

- **OCCAS/NIOSH and DOL: Number claims covered w/different residual contaminant period end dates:**
 - 1961 through 1998 (original definition 5/4/07) when current SEC approved by the Board
 - 1961 through October 21, 2006 new date in NIOSH Appendix 2 to SEC-00079 evaluation report
 - Petitioner proposal: 1961 through Nov. 9, 2007 when 100% of license decomm. activities were completed
 - Or: Petitioner proposal: 1961 through June 8, 2008 when **IEMA** released Madison site for unrestricted use (source: Matt Cushman/Pangea 6/21/08)



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•Views of Van Buren•

