

# Report: Subcommittee on Dose Reconstruction Reviews

Board Meeting, Santa Fe

Dec. 13, 2017

# Members: DRR Subcommittee

David Kotelchuck (Chairperson)

Josie Beach

Bradley P. Clawson

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# Subcommittee Responsibilities

- The Subcommittee for Dose Reconstruction Reviews is responsible for the review and recommendation for Board action, of the Board's Technical Support Contractor's audit procedures (including revisions) related to dose reconstructions conducted by the NIOSH DCAS.

# The Subcommittee will:

- Select cases for individual dose reconstruction review consistent with Board procedures, taking into consideration conflict of interest matters;
- Complete dose reconstruction case reviews (with the assistance of the Board's contractor);
- Develop summary reports for the Board to advise the Secretary periodically on the scientific validity and quality of the dose reconstructions carried out by NIOSH.

# Resolved and Open Findings by Set

Case Set for Review	Tab Number	Number of Cases in Set	Total Findings <sup>a</sup>	Resolved Findings	Open/Unresolved Findings	Percent Resolved
1st–5th	1–100	100	386	386	0	100%
6th	101–120	20	67	67	0	100%
7th	121–148	28	126	126	0	100%
8th	149–178	30	143	143	0	100%
9th	179–218	38	66	66	0	100%
10th	219–236	18	32	32	0	100%
11th	237–257	21	61	61	0	100%
12th	258–304	47	100	100	0	100%
13th	305–334	30	83	83	0	100%
14th	335–358	24	52	52	0	100%
15th	359–406	48	109	103	6	94%
16th	407–428	22	50	49	1	98%
18th	429–440	12	25	22	3	88%
19th	441–470	30	43	33	10	77%
21st	471–500	30	36	13	23	36%
<b>Total:</b>		<b>498</b>	<b>1379</b>	<b>1336</b>	<b>43</b>	<b>97%</b>

# Current Status: Findings & Observations for the 166 Cases in Sets 14-21

Case Set	Total Findings	Resolved Findings	Open/Unresolved Findings	Total Observations	Resolved Observations	Open/Unresolved Observations
14th	52	52	0	12	12	0
15th	109	103	6	44	44	0
16th	50	49	1	15	15	0
18th	25	22	3	6	5	1
19th	43	33	10	21	19	2
21st	36	13	23	47	26	21
<b>Total:</b>	<b>315</b>	<b>272</b>	<b>43</b>	<b>145</b>	<b>121</b>	<b>24</b>

# Findings & Obs. Per Case by Case Group

Case Group	Finding per Case	Observations per Case
First Secty's Report Sets 1-5 (100 cases) 2009	<b>3.98</b>	Obs. not recorded at that time
Second Secty's Rpt. Sets 6-13 (232 cases) 2016	<b>2.70</b>	<b>0.89</b>
Current Report Sets 14-21 (166 cases) 2017	<b>1.90</b>	<b>0.87</b>

## Sets 19 and 21: Categorization by Type

Sets 19 and 21 (Results after completion of 9/28/17 mtg.)	Type 1 Issues	Type 2 Issues
Open	31	18
In-Progress	2	5
Resolved	85	6
<b>Total</b>	<b>118 (80%)</b>	<b>29 (20%)</b>

# Blinds Reviewed as of 12-13-17.

## Part 1 of 2

Blind Cases Rvwd. (Identifiers Withheld)	POC by SC&A	POC by NIOSH/ORAU	Compensation Decision?
<b>Initial Period</b>			
1.	49.35%	48.75%	Agree
2.	48.00%	43.63%	Agree
<b>Set 17 Blinds</b>			
3.	DR under review	DR under review	Not yet determined
4.	38.12%	48.27%	Agree
5.	43.18%	45.27%	Agree
6.	42.65%	47.51%	Agree
7.	51.00%	51.39%	Agree
8.	50.47%	50.46%	Agree
<b>Set 20 Blinds</b>			
9.	40.59%	41.17%	Agree
10.	40.71%	42.49%	Agree
11.	36.43%	42.31%	Agree
12.	43.78%	42.91%	Agree
13.	51.05%	52.54%	Agree
14.	49.48%	49.46%	Agree

# Blinds Reviewed as of 12-13-17.

## Part 2 of 2

Blind Cases Rvwd. (Identifiers Withheld)	POC by SC&A	POC by NIOSH/ORAU	Compensation Decision?
<b>Set 22 Blinds</b>			
15.	42.63%	46.19%	Agree
16.	47.92%	48.08%	Agree
17.	42.43%	46.44%	Agree
18.	49.78%	46.60%	Agree
19.	50.19%	50.08%	Agree
20.	51.50%	50.57%	Agree
<b>Set 23 Blinds</b>			
21.	44.57%	46.10%	Agree
22.	40.47%	48.64%	Agree
23.	49.19%	47.31%	Agree
24.	50.73%	50.83%	Agree
25.	45.69%	48.44%	Agree
26.	43.08%	44.33%	Agree

# Profile of Facilities For Which Blind Cases were Reviewed

<b>Number of Blind Cases Reviewed at Facility</b>	<b>Facilities</b>
<b>4</b>	<b>Oak Ridge, Hanford, Rocky Flats</b>
<b>3</b>	<b>Nevada Test Sites</b>
<b>2</b>	<b>Fernald, Sandia, Pacific NW Laboratory</b>
<b>1</b>	<b>Ten Other Sites</b>

# Comparison of Absolute Values of PoC Differences for Blind Cases

25 Blinds Reviewed: For 16 the NIOSH/ORAU PoC is larger; for 9 the SC&A PoC is larger. For each blind case, the PoC Difference = PoC(NIOSH/ORAU) – PoC(SC&A)

Average of |PoC Differences|

$$= 2.43 \pm 2.63$$

Median of |PoC Differences| = 1.53

Conclusion: The Avg of the absolute difference of PoC values for blind cases calculated by NIOSH/ORAU and SC&A are compatible with 0.