UNITED STATES of America, Plaintiff,

v.

W.R. GRACE & COMPANY–CONN. and Kootenai Development Corporation, Defendants.

No. CV–01–72–M–DWM.

United States District Court, D. Montana, Missoula Division.

Aug. 26, 2003.

United States brought suit, under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), against former and current owners of abandoned asbestos mine, to recover costs it had incurred responding to releases or threats of releases of asbestos in and around town that was located near mine. Following bench trial, the District Court, Molloy, Chief Judge, held that: (1) act of God defense was not applicable, so as to allow defendants to avoid liability for cleanup costs; (2) court's prior rulings on summary judgment in suit were law of case; (3) EPA's response action at site did not conflict with CERCLA, even though some naturally occurring asbestos might have been removed as part of response; (4) costs that agency of Department of Health and Human Services (DHHS) incurred in conducting medical testing program and other health related activities to further EPA's efforts were recoverable under CERCLA; (5) agency's costs were adequately documented, and not inconsistent with NCP; and (6) EPA's revised rate for calculating its indirect response costs at site fairly allocated indirect costs of EPA's superfund program to specific sites and complied with relevant accounting standard, so as to permit recovery of such costs under CERCLA.

Ordered accordingly.

See also, 280 F.Supp. 1135, 2002 WL 32158788.

1. Environmental Law ⚷445(1)

Presence of asbestos in town that was near abandoned asbestos mine area was not natural phenomenon of exceptional, inevitable, and irresistible character, and thus former and current owners of mine could not rely on "act of God" defense, under CERCLA, to avoid liability for costs incurred by the United States to cleanup asbestos contaminated site. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 107(b), 42 U.S.C.A. § 9607(b).

2. Courts ⚷99(3)

District court's prior ruling, on summary judgment in CERCLA cost-recovery action by government against former and current owners of abandoned asbestos mine, that response action by Environmental Protection Agency (EPA) was consistent with national contingency plan (NCP), was law of case, so as to preclude defendants' argument at trial that response violated limitations on response found in NCP. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 101 et seq., 42 U.S.C.A. § 9601 et seq.; 40 C.F.R. § 300.400(b).

3. Courts ⚷99(3)

Partial summary judgment ruling is law of the case and should not be changed in subsequent proceedings without good reason.

4. Courts ⚷99(3)

District court's earlier findings, on summary judgment in CERCLA cost-recovery action, that Environmental Protection Agency (EPA) responded to asbestos and asbestos-contaminated vermiculite that was a by-product of vermiculite processing when it undertook cleanup of con-

taminated site, and that such response was not to naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, was law of the case, so as to preclude former and current owners of abandoned asbestos mine from arguing that response violated CERCLA. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 104(a)(3)(A), 42 U.S.C.A. § 9604(a)(3)(A); 40 C.F.R. § 300.400(b).

5. Environmental Law ⚷440

Response action by Environmental Protection Agency (EPA) at asbestos contaminated site did not conflict with CERCLA, even though some naturally occurring asbestos might have been removed as part of response, as action was undertaken in response to releases and threats of releases associated with mined and processed vermiculite, which contained asbestos, on site, not to naturally occurring substance in its unaltered form. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 104(a)(3)(A), 42 U.S.C.A. § 9604(a)(3)(A).

6. Administrative Law and Procedure ⚷413, 416.1

Agency's regulations, and its interpretation of them, must be accorded considerable weight.

7. Environmental Law ⚷446

Medical testing program conducted by agency of Department of Health and Human Services (DHHS) to determine whether past and current residents of town located near an abandoned asbestos mine suffered adverse health effects from exposures to asbestos was "health effects study," and thus the costs incurred by the agency in conducting study were recoverable in government's CERCLA cost-recovery action against former and current owners of mine areas. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 107(a), 42 U.S.C.A. § 9607(a); 42 C.F.R. § 90.2.

See publication Words and Phrases for other judicial constructions and definitions.

8. Environmental Law ⚷446

Even if medical testing program conducted by agency of Department of Health and Human Services (DHHS) to determine whether past and current residents of town located near an abandoned asbestos mine suffered adverse health effects from exposures to asbestos was not a health effects study, costs of program were recoverable by government in CERCLA cost-recovery action against former and current owners of mine, as program was response action that was necessary to prevent, minimize, or mitigate damage to the public health. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 107(a)(4)(A), 42 U.S.C.A. § 9607(a)(4)(A); 42 C.F.R. § 90.2.

9. Environmental Law ⚷446

Various activities conducted by agency of Department of Health and Human Services (DHHS) with respect to asbestos contaminated site, including mortality analysis, pilot study of environmental cases, and people tracing project, were "health effects studies," and thus agency's costs for activities were recoverable by government in CERCLA cost-recovery action against former and current owners of mine areas. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 107(a)(4)(A, D), 42 U.S.C.A. § 9607(a)(4)(A, D).

10. Environmental Law ⚷446

Health education activities and substance-specific health consultation on tremolite asbestos by agency of the Department of Health and Human Services (DHHS) were undertaken as part of government's "removal action" at asbestos

contaminated site, and thus costs that agency incurred in connection with activities were recoverable as response costs by United States in CERCLA cost-recovery action against former and current owners of abandoned asbestos mine areas. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 107(a)(4)(A), 42 U.S.C.A. § 9607(a)(4)(A).

11. Environmental Law ⚷439, 446

For purposes of claim that costs of health-related activities were not recoverable under CERCLA as improperly sequenced, although CERCLA required government agency to perform health assessment related to asbestos contaminated site within statutorily prescribed period of time, health assessment did not have to be performed before other health-related studies could be conducted. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 104(i)(6)(A), 42 U.S.C.A. § 9604(i)(6)(A); 42 C.F.R. § 90.7(a).

12. Environmental Law ⚷439

Under CERCLA, government agency could initiate health surveillance program related to asbestos contaminated site without first conducting health assessment, epidemiological study or exposure registry. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 104(i)(9), 42 U.S.C.A. § 9604(i)(9).

13. Environmental Law ⚷446

Costs incurred by agency of Department of Health and Human Services (DHHS), in conducting health related activities at asbestos contaminated site, were adequately documented by the government, and thus government could recover such costs, under CERCLA, from former and current owners of asbestos mine areas on site, absent showing that costs were inconsistent with national contingency plan (NCP); government submitted cost summaries, time sheets, contractor invoices, travel vouchers, progress reports and voluminous other information in support of costs, as well as testimony of two senior agency employees. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 101 et seq., 42 U.S.C.A. § 9601 et seq.; 40 C.F.R. § 300.160.

14. Environmental Law ⚷464

Once the United States establishes its prima facie case on CERCLA liability in cost-recovery action, burden shifts to defendant to prove response action was inconsistent with the national contingency plan (NCP). Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 101 et seq., 42 U.S.C.A. § 9601 et seq.

15. Environmental Law ⚷446

When CERCLA defendant claims the United States cannot recover its response costs because of inconsistency with national contingency plan (NCP), defendant must prove inconsistency exists and amount of additional costs that were incurred as a result of the inconsistency. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 101 et seq., 42 U.S.C.A. § 9601 et seq.

16. Environmental Law ⚷465

CERCLA defendant cannot challenge adequacy of government's response cost documentation by raising vague challenges to validity of those costs based on government's evidence, but instead must offer specific evidence to counter government's documentation of its direct costs. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 101 et seq., 42 U.S.C.A. § 9601 et seq.

17. Environmental Law ⚷446

Generally, government's response cost is inconsistent with national contingency plan (NCP), so as to support finding that

cost is not recoverable under CERCLA, only if response action itself was inconsistent with the NCP. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 101 et seq., 42 U.S.C.A. § 9601 et seq.

18. Environmental Law ⚷446

General admonishment in national contingency plan (NCP) to government to complete and maintain documentation to support cost recovery actions under CERCLA did not impose any additional documentation requirements on government, beyond what was sufficient to persuade district court that costs had been proven by preponderance of evidence. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 101 et seq., 42 U.S.C.A. § 9601 et seq.; 40 C.F.R. § 300.160.

19. Environmental Law ⚷446, 464

Plaintiff in a CERCLA cost recovery action has a range of options for proving up the amount of costs it has incurred, and regardless of option taken, burden is on defendant to demonstrate that such documentation is inadequate once prima facie case for costs has been established. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 101 et seq., 42 U.S.C.A. § 9601 et seq.

20. Environmental Law ⚷446

Disputed response costs that Environmental Protection Agency (EPA) incurred during cleanup of asbestos contaminated site through interagency agreement with agency that used third-party to perform risk assessment services, were adequately documented, and thus costs were recoverable in CERCLA cost-recovery action against former and current owners of asbestos mine, absent showing that costs were inconsistent with national contingency plan (NCP). Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 101 et seq., 42 U.S.C.A. § 9601 et seq.

21. Environmental Law ⚷446

Revised indirect rate methodology used by Environmental Protection Agency (EPA) to calculate its indirect response costs associated with cleanup of asbestos contaminated site fairly allocated indirect costs of EPA's superfund program to specific sites and complied with relevant accounting standard, and thus EPA could recover its indirect costs from former and current owner of abandoned asbestos mine, applying provisional indirect rate of 35.53 for relevant years. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 107(a), 42 U.S.C.A. § 9607(a).

22. Environmental Law ⚷446

In the absence of actual indirect rate, indirect response costs calculated based on provisional rate are recoverable by Environmental Protection Agency (EPA) in CERCLA cost-recovery action. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 101 et seq., 42 U.S.C.A. § 9601 et seq.

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Kenneth W. Lund, John D. McCarthy, Linnea Brown, Holme, Roberts & Owen, Denver, CO, Gary L. Graham, Dean A. Hoistad, David C, Berkoff, Terry J. MacDonald, Garlington, Lohn & Robinson, PLLP, Missoula, MT, for Defendants.

ORDER

MOLLOY, Chief Judge.

The United States brought this action against Defendants W.R. Grace & Co.-Conn. ("Grace–Conn.") and Kootenai Development Corporation ("KDC") under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9601 *et seq.* to recover costs the United States has incurred responding to releases or threats of releases of asbestos in and around Libby, Montana. A bench trial was held January 6–8, 2003. Following the trial, the Court ordered the parties to submit proposed findings of fact and conclusions of law with citations to the record before the court. After the parties submitted their proposed findings and conclusions, the Court heard closing arguments on April 25, 2003. After considering the evidence and testimony submitted at trial, along with the parties' arguments and proposed findings of fact and conclusions of law, I find in favor of the United States in the amount of $54,527,081.11 and such other relief as is set forth below. I base my decision on the following Findings of Fact and Conclusions of Law.

I. FINDINGS OF FACT

A. CERCLA LIABILITY AND DEFENSES

1. Liability

1. The parties have stipulated that Grace–Conn. is a liable party under CERCLA, 42 U.S.C. § 9607(a), for the Mine site, the former Screening Plant, the Flyway, the Bluffs, the former Export Plant, the Libby High School, the Libby Middle School, Plummer Elementary School, Kootenai Valley Christian School, Champion Haul Road, Rainy Creek Road, and the following residential or commercial properties in and near Libby, Montana: Beaulia, Belangie, Bowker, Brown (653 Flower Creek), Brown (346 Granite), Brownlee, Burshia, Cady, Calhoun, Cote, Dennis, Downey, Drury, Epperson, Fuhlendorf, Geer, Graham, Hebenstreit, Hilliard, Hoff, Jacabson, Jeresek, Jordon, Kootenai Angler, Long, McCulley, Mohr, Munro, Nixon, Nores, Parker (1421 Main), Parseau, Peterson, Phillips, Powers (2297 Kootenai River Rd.), Powers (2293 Kootenai River Rd.), Ray, Rice, Rodgers, Sanderson (123 Hamann), Sanderson (4241 Hwy 37), Sanderson (113 Oak), Schenck, Skramstad, Siefke, Smith, Spencer (500 Jay Effar), Spencer (229 Pinewood), Spencer Law Firm, Struck, Stubbs, Temple, Visger, Westfall, Wilkes (461 Parmenter), Wilkes (600 Ave. B). Revised Agreed Fact 48.

2. The parties have stipulated that KDC is a liable party under CERCLA, 42 U.S.C. § 9607(a)(1), for the Mine Site, Kootenai Bluffs and Kootenai Flyway because it is the "current owner" of the properties. Revised Agreed Fact 51.

3. Asbestos is a hazardous substance under CERCLA. Agreed Fact 7. *See also* 42 U.S.C. § 9601(14)(E) (referencing hazardous air pollutants listed under 42 U.S.C. § 7412(b)); 40 C.F.R. § 302.4 (asbestos on list of hazardous substances).

4. The parties have stipulated that any release or threat of release of asbestos at the properties that form the Libby Asbestos Site was not caused by an act of war. Revised Agreed Fact 52.

5. The parties have stipulated that any release or threat of release of asbestos at the Libby Asbestos Site was not caused by an act or omission of a third party. Revised Agreed Fact 53.

6. On May 23, 2000, the Environmental Protection Agency ("EPA") sent W.R. Grace & Co. and Grace–Conn. a letter demanding payment of response costs of $561,790.85 that the United States had in-

curred through April 30, 2000. Agreed Fact 56.

2. Naturally–Occurring Asbestos

7. Paul Peronard is the EPA's On–Scene Coordinator at the Libby Asbestos Site. Tr. at 38:9–19.

8. In this capacity, Mr. Peronard is responsible for overseeing the investigation and cleanup of hazardous waste sites. Tr. at 38:1–2. He has personal knowledge of the work done at the Site, and work done by the Department of Transportation (Volpe Center) and the Agency for Toxic Substances and Disease Registry (hereinafter "ATSDR") under interagency agreements with EPA. Tr. at 39:25 to 44:11.

9. Mr. Peronard's testimony is very credible.

10. Vermiculite Mountain (the "Mine Site") is a geologic formation that includes naturally occurring asbestos. Tr. at 54:19–20.

11. EPA's removal actions in and near Libby were not based on the presence of naturally-occurring asbestos undisturbed by human activity. Tr. at 55:19 to 56:8. Rather, EPA sought to remove vermiculite material disposed of in and near Libby during the mining, processing, and sale of vermiculite. Tr. at 56:5–8.

12. EPA excavated three to four feet of soil from part of the former Screening Plant north of Rainy Creek, currently owned by the Parker family. Tr. at 63:7–19.

13. On part of the Parker property where the Parkers intend to build a house, EPA encountered processed vermiculite at greater depths than at the rest of the former Screening Plant. This material was excavated so that installation of a septic system and drain field at the planned house would not require a future EPA response. Tr. at 63:20 to 64:14.

14. This area appears to have been a borrow pit or depression that was filled with processed vermiculite. Tr. at 63:23–24. Approximately 3,000 cubic yards of material were removed from this area. Tr. at 619:4–21.

15. At the former Screening Plant, EPA took steps to avoid removing soils that were not related to vermiculite mining and processing. These steps included visual observation and refraining from excavating soils that were below a volcanic layer of ash that pre-dated vermiculite mining and processing. Tr. at 60:23 to 61:11.

16. EPA did not encounter the ash layer while excavating on the part of the Parker property discussed above in paragraphs 13 and 14. Tr. at 65:15 to 66:4.

17. Testimony by Mike Hutchinson, the geologist responsible for monitoring the excavations at the Libby Asbestos Site, contradicts testimony by Mr. Peronard. However, I find Mr. Hutchinson's testimony was not credible.

18. EPA documented the presence of layers of naturally-occurring asbestos four to ten feet below the surface of parts of the former Screening Plant. *See* A.R. Doc. No. 485941.

19. Processed, unexfoliated vermiculite was found at depths of over ten feet in an area of the Screening Plant north of Rainy Creek. A.R. Doc. No. 485941, at 2. The document reflects that EPA excavated this area "to prevent exposure to workers who in the near future would potentially be digging basements, footing trenches, water and septic lines." *Id.* at 3.

20. The mining of vermiculite removed rock, dirt, and vegetation from the top of Vermiculite Mountain, creating an extensive disturbed area at the Mine Site. Tr. at 359:9 to 360:22.

21. Materials eroding off the Mine Site flowed to Rainy Creek and then to the Kootenai River, upstream from the Screening Plant. Tr. at 354:5 to 356:3.

22. Mining operations at the Mine Site have exposed substantial surface area that would otherwise have been covered with dirt, rock and vegetation. Tr. at 359:16–24.

23. When the Mine Site was being mined, rainfall washed material from the surface of the Mine Site to the Kootenai River. Tr. at 361:7 to 362:3.

24. The disturbed area at the Mine Site was caused by mining activity. Any asbestos that washed off disturbed areas at the Mine Site to the Kootenai River was not in its "unaltered form, or altered solely by naturally occurring processes or phenomena."

B. COSTS INCURRED BY THE UNITED STATES

25. The United States claims it has incurred costs of $54,527,081.11 through December 31, 2001, for response activities at or related to the Libby Asbestos Site. This figure does not include prejudgment interest. Revised Agreed Fact 70.

1. Stipulated Costs

26. The parties have stipulated that EPA has adequately documented $1,214,289.97 in EPA payroll and travel costs; $1,372,000.00 in certain EPA indirect costs; 32; $2,382,127.89 in EPA contract costs; $26,927,611.95 in EPA interagency agreement costs, excluding ATSDR and Volpe Center/Aeolus, Inc. costs; $840,352.29 in EPA miscellaneous costs; $27,379.35 in Public Health Service travel costs; and $208,364.28 in Department of Justice costs.

27. The total amount for which the parties have stipulated to the adequacy of documentation is $32,972,125.73.

a. EPA Payroll and Travel Costs

28. The parties stipulate to the adequacy of documentation for $822,536.62 in EPA Region 8 payroll costs through December 31, 2001. Agreed Fact 72.

29. The parties stipulate to the adequacy of documentation for $251,440.77 in EPA Region 8 travel costs through December 31, 2001. Agreed Fact 74.

30. The parties stipulate to the adequacy of documentation for $95,336.17 in EPA headquarters payroll costs through December 31, 2001. Agreed Fact 73.

31. The parties stipulate to the adequacy of documentation for $44,976.41 in EPA headquarters travel costs through December 31, 2001. Agreed Fact 75.

32. The amounts in paragraphs 27 through 30 total $1,214,289.97.

b. EPA Indirect Costs

33. Defendants do not dispute $1,372,000 in EPA indirect costs incurred at or related to the Libby Asbestos Site through December 31, 2001. Revised Agreed Fact 71.

c. EPA Contract Costs

34. The parties stipulate to the adequacy of documentation for $2,212,437.33 in costs incurred under the Enforcement Support Services ("ESS") Contract No. 68–W9–9050 with Toeroek Associates Inc. for response activities at or related to the Libby Asbestos Site through December 31, 2001. Agreed Fact 80.

35. The parties stipulate to the adequacy of documentation for $145,266.57 in costs incurred under the Response Action Contract ("RACS") No. 68–C9–9223 with Lockheed Martin Services, Inc. for response activities at or related to the Libby Asbestos Site through December 31, 2001. Agreed Fact 81.

36. The parties stipulate to the adequacy of documentation for $9,296.94 in costs incurred under the Superfund Technical Assist Response Team Contract No. 68–W5–0031 with URS Operating Services, Inc. for response activities at or related to the Libby Asbestos Site through December 31, 2001. Agreed Fact 82.

37. The parties stipulate to the adequacy of documentation for $14,781.81 in costs incurred under the Technical Support and Site Evaluation Program Contract No. 68–WO–1010 with IT Corp. for response activities at or related to the Libby Asbestos Site through December 31, 2001. Agreed Fact 83.

38. The parties stipulate to the adequacy of documentation for $345.24 in costs incurred under the Technical Support and Site Evaluation Program Contract No. 68–W9–8106 with Dyncorp I & ET, Inc. for response activities at or related to the Libby Asbestos Site through December 31, 2001. Agreed Fact 84.

39. The amounts in paragraphs 34 through 38 total $2,382,127.89.

d. EPA Interagency Agreement Costs (Excluding ATSDR)

40. EPA performed much of the investigatory and cleanup work at the Libby Asbestos Site through the use of Interagency Agreements with other federal agencies. Tr. at 40: 2–9, 41:21 to 42–10.

41. The parties stipulate that the United States Geological Survey ("USGS") incurred $123,217.05 in costs under Interagency Agreement No. DW14953782 for response activities at or related to the Libby Asbestos Site through December 31, 2001. Supplemental Agreed Fact 92. USGS assisted EPA on issues related to asbestos analysis and the mineralogy of the Libby vermiculite deposit. Tr. at 41:21 to 42:4.

42. In November 1999, the Volpe Center began working with EPA Region 8 to support its investigation at the Libby Asbestos Site. Tr. at 324:21 to 325:1. The Volpe Center conducted its activities at the Libby Asbestos Site through an interagency agreement with EPA. Tr. at 325:19, 326:3–5; Exhibit 1063. The Volpe Center's work at Libby included, among other things, removal of hazardous substances, investigation, community relations, and operating management information systems. Tr. at 325:2–9; 39:25 to 41:8.

43. John McGuiggin testified about activities performed and costs incurred by the Volpe Center at or related to the Libby Asbestos Site. Mr. McGuiggin is an environmental engineer and is the Libby Asbestos Site project manager for the Volpe Center. He has personal knowledge of the activities performed and costs incurred by the Volpe Center. Tr. 324:24 to 325:17.

44. The parties stipulate to the adequacy of documentation for $26,804,394.90 in Volpe Center costs under Interagency Agreement No. DW69953792 for response activities at or related to the Libby Asbestos Site through December 31, 2001. Revised Agreed Fact 86.

45. The parties stipulate that $3.86 million of the Volpe Center costs for response activities at or related to the Libby Asbestos Site incurred through December 31, 2001, were incurred at the Kootenai Bluffs and Flyway properties, currently owned by Defendant KDC. Supplemental Agreed Fact 91.

46. Total interagency agreement costs for response activities at or related to the Libby Asbestos Site incurred through December 31, 2001, for which the adequacy of documentation is undisputed are $26,927,611.95.

e. EPA Miscellaneous Costs

47. The parties stipulate to the adequacy of documentation for EPA Miscellaneous Costs of $840,352.29 incurred through December 31, 2001, for response activities at or related to the Libby Asbestos Site. Agreed Fact 85.

f. Public Health Service Travel Costs

48. The parties stipulate to the adequacy of documentation for $27,379.35 in U.S. Department of Health and Human Services, Public Health Service ("PHS") travel costs for response activities at or related to the Libby Asbestos Site incurred through December 31, 2001. Agreed Fact 88.

g. Department of Justice Costs

49. The parties stipulate that the United States has incurred costs of $208,364.28 through December 31, 2001, for U.S. Department of Justice ("DOJ") employee payroll and indirect costs for enforcement activities related to the Libby Asbestos Site. Agreed Fact 87.

50. The parties stipulate that the DOJ costs are reasonable. Agreed Fact 87.

2. Disputed Costs

a. Agency For Toxic Substances and Disease Registry ("ATSDR") Costs

(1) Background

51. ATSDR is an agency of the United States Department of Health and Human Services and the sister agency of the Centers for Disease Control and Prevention. *See* 42 U.S.C. § 9604(i)(1).

52. Among other things, ATSDR is responsible for assessing public health issues related to the release of hazardous substances. Tr. at 98:15 to 99:5. *See also* 42 U.S.C. § 9604(i).

53. To further its responsibilities, ATSDR is authorized by CERCLA to conduct survey and screening programs to "determine relationships between exposure to toxic substances and illness." 42 U.S.C. § 9604(i)(1)(E).

54. Sharon Campolucci testified about ATSDR's involvement at the Libby Asbestos Site. She is the Deputy Director for the Division of Health Studies at ATSDR and was the project officer and field coordinator in Libby. She has personal knowledge of ATSDR's activities at the Libby Asbestos Site. Tr. at 94:21–13; 97:7–12; 102:6–20; 104:21 to 105:21.

(2) ATSDR's Site–Related Activities

55. In late 1999, EPA asked ATSDR to participate in the government's response to the release of asbestos in and around Libby, Montana. Tr. at 105:22–25; 42:5 to 43:2.

56. As part of this response, ATSDR prepared a comprehensive plan outlining the activities ATSDR intended to undertake at the Site. Tr. at 104:3–20.

57. Under this plan, ATSDR (i) conducted a Medical Testing Program; (ii) performed a Mortality Analysis; (iii) conducted a Pilot Study of Environmental Cases; (iv) conducted a CT Study; (v) provided health education; (vi) implemented a tracing project, a precursor to the Tremolite Asbestos Registry; and (vii) prepared a substance-specific health consultation on tremolite asbestos.

(a) Medical Testing Program

58. ATSDR's largest activity in Libby in terms of both time and money was its Medical Testing Program. *See, e.g.,* Exhibit 1141, at 5891 (showing that ATSDR incurred more than $5,000,000.00 in connection with the Medical Testing Program).

59. ATSDR began planning for the Medical Testing Program soon after EPA provided information indicating that residents in the community had been exposed to asbestos and that associated health concerns had been documented by the local medical community. *See* Tr. at 168:19–25, 106:6–8, 167:23 to 168:18.

60. The Medical Testing Program involved testing residents and former residents of Libby to determine the extent of adverse health effects from exposures to asbestos. *See* Exhibit 1145, at 1860; Tr. at 106:1–5.

61. The Medical Testing Program was implemented in two phases. Tr. at 109:8–9. In the first phase, ATSDR, through its contractor National Opinion Research Center ("NORC"), conducted more than 12,000 telephone screening interviews. Tr. at 110:5–11. The purpose of the interviews was to determine eligibility, based on criteria developed by ATSDR, for medical testing. Tr. at 109:8 to 110:4.

62. In the second phase, ATSDR, through NORC and the Association of Occupational & Environmental Clinics ("AOEC"), performed medical testing on more than 7,000 eligible individuals. Tr. at 110:19 to 111:1, 123:5–6.

63. ATSDR conducted medical testing in a clinic it established in Libby. Tr. at 112:9 to 113:3. ATSDR also conducted testing in Elko, Nevada, to accommodate former Libby residents who had moved to a mining community there after the mine in Libby closed. Tr. at 121:22 to 122:10.

64. Between July 5, 2000, and November 2, 2000, the first year of the Medical Testing Program, ATSDR's Libby clinic was generally open seven days per week for 8 to 12 hours per day. During 2001, the clinic was open from July 29 through approximately September 7. Tr. at 121:10–21.

65. An initial step in the medical testing was an interview in which participants were asked to complete a consent form and to provide information on their medical and residential histories. Tr. at 114:1–20.

66. After the interview, participants were given a pulmonary function test, which measures lung capacity. A diminished lung capacity is a marker for asbestos-related lung abnormalities. *See* Tr. at 115:8–17.

67. Following the pulmonary function test, participants had three chest x-rays taken—one posterior anterior (front to back) and two obliques. Tr. at 117:14 to 118:1.

68. The results of the pulmonary function test were reviewed on site by a pulmonologist. Tr. at 116:23 to 117:6.

69. The chest x-rays were also read on site for urgent care needs by a radiologist. Tr. at 118:2–8. The results were then read off-site by at least two B-readers for asbestos-related lung abnormalities. Tr. at 118:9 to 119:3.

70. At the end of his or her appointment, each participant was given a summary of the tests that had been performed, a patient ID number, information about when the final results would be available, a phone number to call with any questions, and a fact sheet about asbestos. Tr. at 120:18 to 121:6.

71. Once available, the final test results were mailed to participants and their designated health care providers. Tr. at 121:7–9.

72. Aggregate results from the Medical Testing Program were reported in the ATSDR study entitled: Year 2000 Medical Testing of Individuals Potentially Exposed to Asbestiform Minerals Associated With Vermiculite in Libby, Montana: A Report To the Community. A.R. Doc. No. 487408.

73. The Medical Testing Program was a "health effects study." *See* Tr. at 170:1–5, 167:12–17; 42 C.F.R. § 90.2 (defining "health effects study" as "research, investigation, or study . . . to evaluate the health effects of exposure to hazardous substances at specific sites").

(b) Mortality Analysis

74. In addition to the Medical Testing Program, ATSDR conducted a mortality analysis as part of its health-related activities at the Site. Tr. at 149:13–15. The analysis involved a review and analysis of the death certificates of former Libby residents. Tr. at 149:18–22.

75. The purpose of the mortality analysis was to determine if there was a higher mortality rate from specific diseases in the Libby area. Tr. at 149:23–25.

76. Aggregate results from the mortality analysis were reported in the ATSDR study entitled: Health Consultation: Mortality from Asbestosis in Libby, Montana. Exhibit 1145 at 810–64.

77. The mortality analysis was a "health effects study." *See* Tr. at 170:6–10, 167:12–17; 42 C.F.R. § 90.2.

(c) Pilot Study of Environmental Cases

78. In addition to the Medical Testing Program and mortality analysis, ATSDR performed a pilot study of environmental cases ("Pilot Study") in connection with the Libby Asbestos Site. Tr. at 150:9–11.

79. As part of the Pilot Study, ATSDR, with the assistance of NORC, reviewed the medical records of Libby residents and former residents who had been diagnosed with an asbestos-related disease. Tr. at 150:9–21.

80. The main purpose of the Pilot Study was to determine whether residents of Libby were at risk of developing asbestos-related diseases solely based on having lived in Libby. A second purpose was to examine the clinical progression of asbestos-related diseases to better understand how the diseases progress. Tr. at 150:12–21.

81. The Pilot Study was a "health effects study." *See* Tr. at 170:11–13, 167:12–17; 42 C.F.R. § 90.2.

(d) CT Study

82. ATSDR also conducted a Computed Tomography study ("CT Study") as part of its activities at the Libby Asbestos Site. Tr. at 151:24–25.

83. The CT Study involved taking approximately 325 CT scans of current and former residents of Libby. Tr. at 152:21 to 153:11.

84. The purpose of the CT Study was to determine whether CT scans were more effective than chest x-rays at detecting asbestos-related lung abnormalities. Tr. at 152:10–13.

85. The CT Study was a "health effects study." *See* Tr. at 170:16–17, 167:12–17; 42 C.F.R. § 90.2.

(e) Health Education

86. At EPA's request, and as part of its own response, ATSDR provided health education as part of its response at the Libby Asbestos Site. *See* Tr. at 154:15–16; 45:8–24.

87. EPA provided ATSDR with $4,725,000 through a site-specific interagency agreement for the explicit purpose of (1) providing "medical testing for people in the community who have had past exposures to asbestos in order to identify people with asbestos-related conditions so that they can be referred for medical care" (*i.e.,* the Medical Testing Program) and (2) providing "a public health education program to assist local health care providers and residents in obtaining full and up-to-date

information on asbestos-related risks and diseases." Exhibit 1145 at 881–82

88. ATSDR's health education activities included conducting stress management workshops, holding smoking cessation classes, providing continuing medical education, and preparing fact sheets. Tr. at 154:17–21, 157:20–22.

89. ATSDR held six stress management workshops—five for counselors, such as social workers, nurses and clergy, and one for the community. Tr. at 155:2–7. These workshops were taught by an ATSDR staff psychiatrist, Tr. at 154:22–25, and were offered as part of ATSDR's effort to prepare the community for the anxiety and depression expected to follow the dissemination of information generated through the Medical Testing Program. Tr. at 155:18 to 156:1. The topics covered during the workshops included counseling on grieving and anxiety associated with asbestos-related diseases and, for family members, dealing with ongoing care for people who have asbestos-related diseases. Tr. at 155:10–17.

90. ATSDR held four smoking cessation classes. These classes were held to educate the community on the increased health risk those with asbestos-related disease face when they smoke. Tr. at 156:15 to 157:11.

91. As part of its health education efforts, ATSDR also provided continuing medical education. The continuing medical education was offered to physicians and health care providers in Libby and Kalispell over a two-day period. Tr. at 158:2–21; *See also* Exhibit 1145, at 1398–422. The purpose was to provide local physicians and health care providers with information about asbestos-related diseases, including diagnosis, to prepare them to treat those suffering from asbestos-related diseases in the Libby community. Tr. at 158:22 to 158:13.

92. ATSDR also prepared 10 to 12 fact sheets on a variety of asbestos-related topics affecting the Libby community. Tr. at 160:12–14. The fact sheets were part of ATSDR's effort to communicate the results of its response activities to the Libby community. Tr. at 159:14 to 160:11.

93. Health education facilitates community understanding of and cooperation with EPA's cleanup activities. Tr. at 44:23 to 45:13. Health education is a prudent public health practice, an integral part of ATSDR's site-related activities, and an essential means for communicating the results of ATSDR's response activities to the Libby community. *See e.g.* Tr. at 170:20 to 171:5.

94. Though ATSDR's health education activities at Libby are neither "health assessments" nor "health effects studies," each is "necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment" and, therefore, they are part of the government's removal action at the Libby Asbestos Site. *See* 42 U.S.C. § 9601(23) (defining "removal" to include "such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat of release [of a hazardous substance]"). *See also* 40 C.F.R. §§ 300.155 and 300.415(n) (concerning community relations); Tr. at 44:4 to 45:24; Exhibit 1145 at 881 (providing ATSDR with EPA funding explicitly for health education in Libby).

(f) Tracing Project/Tremolite Asbestos Registry

95. As part of its response in Libby, ATSDR initiated a tracing project. The purpose of the tracing project was to identify individuals who worked at W.R. Grace's vermiculite mine or vermiculite

processing facilities or lived with someone who had. Tr. at 161:8–25.

96. The tracing project was a precursor to the Tremolite Asbestos Registry. Tr. at 162:12–20.

97. The Tremolite Asbestos Registry represents ATSDR's effort to locate and follow individuals who worked at W.R. Grace's vermiculite mine or related facilities or lived with someone who had to determine the health effects of asbestos exposure over an extended period of time. Tr. at 163:12–21.

98. The tracing project was part of a "health effects study"—the Tremolite Asbestos Registry. See Tr. at 171:6–12, 167:12–17; 42 C.F.R. § 90.2 (defining "health effects study" to specifically include exposure and disease registries).

(g) Substance-specific Health Consultation on Tremolite Asbestos

99. In connection with ATSDR's response in Libby, ATSDR also prepared a site-specific health consultation on tremolite asbestos. Tr. at 164:25 to 165:2, 165:20 to 166:6.

100. The health consultation on tremolite asbestos contains ATSDR's knowledge on tremolite asbestos and was prepared in direct response to the human health threats posed by the Libby Asbestos Site and provided ATSDR with necessary background information for many of its health-related activities at the Site. Tr. at 165:5–19.

101. While the health consultation on tremolite asbestos is neither a "health assessment" nor a "health effects study," it was necessary for ATSDR to arm itself with information about tremolite asbestos so it could respond appropriately to the Libby Asbestos Site. The health consultation was "necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment" and, therefore, was part of the government's removal action. *See* 42 U.S.C. § 9601(23).

(3) Documentation of ATSDR Costs

102. ATSDR used two sources to pay costs incurred during its response activities at the Libby Asbestos Site: (1) its own general appropriations and (2) a site-specific interagency agreement with EPA. *See* Tr. at 139:24 to 140:3. *See also* Exhibit 1141 at 5889–91 (distinguishing between costs incurred under site-specific interagency agreement and those incurred from general appropriations).

103. ATSDR tracked its costs by using five categories: payroll, travel, extramural, indirect, and other. Tr. at 175:15–22.

104. ATSDR has summarized its Libby costs through December 31, 2001, in a cost summary. Exhibit 1141, at 5891. ATSDR has documented its Libby costs through December 31, 2001, in a cost recovery package. Exhibit 1145.

105. Betty Jones testified about the documentation of ATSDR's costs. Ms. Jones is a certified public accountant and is the Cost Recovery team leader for ATSDR. She oversees the cost recovery accounting process for ATSDR and has personal knowledge of ATSDR's overall accounting process and the specific accounting used for the Libby Asbestos Site. Tr. at 174:2–19. I find her testimony credible and persuasive.

(a) Payroll Costs

106. ATSDR tracks its payroll costs using cost recovery time sheets. Tr. at 176:10–11; Exhibit 1135.

107. The time sheets are completed electronically and input directly into ATSDR's Cost Recovery System ("CRS") by each ATSDR employee doing site-spe-

cific work. Tr. at 178:23–25, 179:17 to 181:1.

108. ATSDR's time sheets record the employee's name; the pay period; the pay period date; the activity codes describing the nature of the work performed; the site codes describing the site to which the work relates; the site name and State; and the hours worked. Tr. at 181:11–21; Exhibit 1135.

109. Once completed, the time sheets are signed and dated by both the employee and the employee's supervisor. The signatures confirm that the employee and his or her supervisor have reviewed the time sheet for accuracy and completeness. Tr. at 182:15–22.

110. The information on the time sheets is summarized on payroll summaries, including a Comprehensive Payroll Expense Report and a Payroll Expense Report.

111. The Comprehensive Payroll Expense Report is generated by CRS. It is prepared for a specific site and contains the names of each employee doing site-specific work, the fiscal year in which the work was done, the pay period, the activity code, the hours worked, and the corresponding payroll amount. *See, e.g.,* Exhibit 1145, at 928–48; *see also* Tr. at 205:3–19.

112. The Payroll Expense Report summarizes the Comprehensive Payroll Expense Report and contains the name of each employee doing site-specific work, the fiscal year, the hours worked, and the total payroll amount by employee and fiscal year. *See, e.g.,* Exhibit 1145, at 911–27.

113. The payroll summaries for the Libby Site, copies of all cost recovery time sheets supporting the payroll summaries, and a summary of activity codes are included in ATSDR's cost recovery package. *See, e.g.,* Exhibit 1145, at 911–1302; Tr. at 206:5–20.

(b) Travel Costs

114. ATSDR documents its travel costs using travel orders and travel vouchers.

115. The travel order authorizes an employee to travel. Tr. at 184:6–12. It contains the travel order number, the traveler's name, the traveler's social security number, the purpose of the trip, and an estimate of the travel costs. Exhibit 1134, at 8306–08.

116. ATSDR's cost recovery group reviews all travel orders to determine whether the purpose of the travel is site-specific. Tr. at 185:22 to 186:3.

117. ATSDR tracks site-specific travel by manually inputting the travel information into CRS, the same electronic system ATSDR uses to track its payroll costs. Tr. at 186:15–20.

118. The travel voucher is used for authorization and payment of travel costs. *See* Exhibit 1134. It is prepared after an employee completes his or her travel. The travel voucher includes documentation of specific travel costs, such as airline and hotel receipts, and is signed by the employee. *Id.;* Tr. at 184:1–5.

119. The costs reflected on a travel voucher are included in a cost recovery package only after they have actually been paid. Tr. at 186:21 to 187:4. Payment is verified through an interface between CRS and the financial management system. When the voucher is paid, the financial management system automatically downloads to CRS the amount paid, the treasury schedule number, and the date. Tr. at 187:5–11.

120. Once ATSDR's cost recovery group receives notification that a travel voucher has been paid, it compares the voucher with the employee's time sheet to verify that the purpose of the trip and the time sheet coincide. Tr. at 187:12–18.

121. If the voucher is consistent with the time sheet, the cost recovery group approves the travel voucher in CRS and the amount can be included in a cost recovery package. Tr. at 187:19 to 188:7.

122. Like payroll costs, ATSDR's travel costs are summarized in travel expense summaries for each site, including a Comprehensive Travel Expense Report and a Travel Expense Report.

123. The Comprehensive Travel Expense Report is generated by CRS for each site and contains the names of each employee traveling on site-related work; the fiscal year in which the travel was taken; the obligation document number ("ODN")/travel order number; voucher amount; ticket amount; total travel expense amount; and treasury schedule number confirming payment of the total travel expense amount. *See, e.g.,* Exhibit 1145, at 1968–78. *See also* Tr. at 205:3–19.

124. The Travel Expense Report summarizes the Comprehensive Travel Expense Report and contains employees' names; ODN/travel order numbers; treasury schedule numbers; and amounts paid. *See, e.g.,* Exhibit 1145, at 1964–67; Tr. at 207:5–13.

125. The travel expense summaries for the Libby Asbestos Site and copies of all travel orders and travel vouchers relating to those summaries are included in ATSDR's cost recovery package. *See, e.g.,* Exhibit 1145 at 1964–3060. *See also* Tr. at 207:18–24.

(c) Extramural Costs/NORC and AOEC

126. ATSDR used both a task order contract and a cooperative agreement to accomplish its health-related activities in Libby.

127. For example, ATSDR used several task orders, numbered 13, 14, 15, and 16, under its contract with NORC to perform work relating to the Libby Site. Task Order 13 related to the Medical Testing Program; Task Order 14 related to the CT Study; Task Order 15 related to the Pilot Study of Environmental Cases; and Task Order 16 related to the tracing project/Tremolite Asbestos Registry. *See* Exhibit 1152.

128. ATSDR used its existing cooperative agreement with AOEC to secure its assistance with the Medical Testing Program. *See* Tr. at 110:24 to 111:1, 111:11 to 112:8.

129. ATSDR categorizes costs associated with both task order contracts and cooperative agreements as extramural costs. Tr. at 190:24 to 191:1.

130. Under both funding mechanisms, ATSDR obligates a specific amount of money for a given task. *See, e.g.,* Exhibit 104 (seeking authorization for funding NORC for first phase of Medical Testing Program); Exhibit 1136 (documenting that request for NORC funding for first phase of Medical Testing Program granted); Exhibit 1153 (documenting increase in NORC funding for Medical Testing Program); Exhibit 1154 (AOEC's application for funding); Exhibit 1133 (seeking authorization for funding AOEC for its participation in Medical Testing Program); Exhibit 1198 (documenting that request for AOEC funding granted). Once obligated, funding is transferred to an account maintained for the contractor/cooperative partner using a letter of credit. *See* Tr. at 137:17–25.

131. Upon transfer, funds are immediately available to the contractor or cooperative partner without further action on the part of ATSDR. *See* Tr. at 131:23 to 132:8.

132. Progress under both task order contracts and cooperative agreements is documented in progress reports. *See, e.g.,* Exhibit 1132; Exhibit 1149.

133. With respect to its work in Libby, NORC submitted a monthly progress report to Sharon Campolucci, ATSDR's project officer and field coordinator for the Libby Site. *See* Exhibit 1132; Tr. at 132:9–17. Ms. Campolucci reviewed these reports to verify that they were consistent with her understanding of the work done in Libby. Tr. at 133:5–20.

134. In addition to the monthly progress reports, NORC submitted an invoice to Ms. Campolucci every month for each task. *See* Exhibit 1131; Tr. at 135:11 to 136:18. These invoices were reviewed by either Ms. Campolucci or her staff. Tr. at 136:16 to 137:16. Discrepancies were brought to NORC's attention and, as warranted, corrected. *See id.*

135. AOEC provided ATSDR with quarterly progress reports, summarizing AOEC's work at all sites, including the Libby Asbestos Site. *See* Exhibit 1149; Tr. at 145:24 to 146:4. Progress reports were reviewed by Ms. Campolucci or her staff to verify that they were consistent with her understanding of AOEC's work in Libby. Tr. at 145:24 to 147:5.

136. Extramural costs are not tracked in ATSDR's CRS. Tr. at 191:5–11.

137. Instead, when ATSDR is asked to prepare a cost recovery package for a site, it determines whether it has incurred extramural costs relating to that site. Tr. at 191:12 to 192:6.

138. Where there are extramural costs, ATSDR requests cost information and supporting documentation from the contractor and/or cooperative partner. Tr. at 192:7–13.

139. Upon receipt, ATSDR's cost recovery group conducts an overall review of the information and documentation. It checks for mathematical errors and missing documentation. Tr. at 193:6–19.

140. After it checks for mathematical errors and missing documentation, ATSDR's cost recovery group manually includes the extramural costs in the cost recovery package as a line item in the cost summary. *See, e.g.,* Exhibit 1141, at 5891; Tr. at 192:7–13.

141. Cost information and supporting documentation relating to ATSDR's extramural costs, including authorization documents, *see, e.g.,* Exhibit 1136; invoices, *see, e.g.,* Exhibit 1131; progress reports *see, e.g.,* Exhibit 1132, Exhibit 1145, at 5373–96; and expense summaries, *see, e.g.,* Exhibit 1145, at 5370–72, 5396, 5398, are included in ATSDR's cost recovery package for the Libby Asbestos Site. *See* Tr. at 209:16–21; *see also* Exhibit 1145, at 1303–455.

(d) ATSDR Indirect Costs

142. ATSDR also incurs indirect costs. Tr. at 194:21–22. Indirect costs are commonly referred to as overhead. Examples include rent, utilities, information systems, and computer services. Tr. at 194:11–15.

143. ATSDR calculates its indirect costs by using an indirect cost rate. Tr. at 194:23–24.

144. ATSDR's indirect cost rate is calculated each fiscal year by Cotton and Company. Tr. at 194:25 to 195:7, 221:4–6, 222:2–5.

145. Once the indirect cost rate is finalized for a particular fiscal year, ATSDR's cost recovery group manually inputs the rate into CRS. Tr. at 197:1–3.

146. To determine its indirect costs for any particular site, ATSDR multiplies the total number of direct site hours by the applicable indirect cost rate. Tr. at 197:4–17. This calculation is automatically done by CRS and is documented on an indirect cost expense report. *See* Tr. at 208:24 to 209:4.

147. ATSDR's total indirect costs, through the pay period ending December

29, 2001, associated with the Libby Asbestos Site were $4,581,885.00. *See* Exhibit 1141, at 5891.

148. The indirect cost expense report for the Libby Asbestos Site and copies of relevant pages from Cotton and Company's indirect cost rate report showing the final calculation of the indirect cost rate are included in ATSDR's cost recovery package. *See* Exhibit 1145, at 4626–27; Tr. at 208:24 to 209:4.

(e) "Other" Costs

149. "Other" costs are all costs that are not payroll, travel, extramural, or indirect. Tr. at 188:16–22.

150. The primary other cost associated with the Libby Asbestos Site is the administrative fee paid to the Centers for Disease Control and Prevention ("CDC"). The administrative fee covers administrative support services provided by CDC to ATSDR. *See* Exhibit 1145, at 4306–08.

151. "Other" costs are documented in two ways. Some are tracked in CRS; some are tracked by invoice. In either case, to be included in a cost recovery package, the cost recovery group must be aware of them. Tr. at 188:23 to 189:8.

152. For those costs that can be tracked in CRS, payment is verified through an interface between CRS and the financial management system. When the cost is paid, the financial management system automatically downloads the payment information to CRS. Tr. at 189:15–21.

153. Once ATSDR's cost recovery group receives notification that an "other" cost in CRS has been paid, through the automatic interface between CRS and the financial management system, the cost recovery group reviews the documentation supporting the cost to insure that it is complete, that the cost was site-specific, that it was authorized, and that it was paid. Tr. at 189:22 to 190:23.

154. If the supporting documentation is complete, and the cost is site-specific, authorized and paid, the cost recovery group manually approves the cost in CRS and the amount can be included in a cost recovery package. Tr. at 190:12–23.

155. For those costs that cannot be tracked in CRS, the cost recovery group keeps pertinent documentation, such as invoices, purchase orders, credit card bills and receipts, in a site-specific file. Tr. at 189:9–14. When a cost recovery package is prepared, these costs are manually included in the line item in the cost summary for "other" costs. *See generally* Exhibit 1141, at 5891; Tr. at 207:25 to 208:3.

156. Summary reports reflecting payment of "other" costs tracked in CRS; copies of invoices, purchase orders, credit card bills and receipts; financial records from CDC reflecting the amount of the administrative fee; and CDC's authority for charging ATSDR the administrative fee are included in ATSDR's cost recovery package for the Libby Asbestos Site. Tr. at 208:4–18.

(4) Summary of ATSDR Costs

157. ATSDR incurred $11,338,191.62 in costs relating to the Libby Asbestos Site through December 31, 2001. Exhibit 1141, at 5891; Tr. at 204:16–21.

158. Of ATSDR's total costs, $943,281.99 were for payroll costs; $209,410.96 were for travel costs; $278,582.60 were for "other" costs; $4,581,885.00 were for indirect costs; and $5,325,031.07 were for extramural costs—$4,044,748.00 to NORC and $1,280,283.07 to AOEC. *See* Exhibit 1141, at 5891.

159. The United States has proven through testimony and sufficient documentation that it is entitled by a preponderance of evidence to recovery of the full $11,338,191.62 of ATSDR's costs.

b. Volpe Center/Aeolus, Inc. Costs

160. Defendants contend that costs EPA incurred through its inter-agency agreement with the Volpe Center related to a contract with Aeolus, Inc. ("Aeolus") should have been billed to a non-site specific account rather than to the Libby Asbestos Site project.

161. EPA incurred $266,538.10 in costs related to the Volpe Center's contract with Aeolus through December 31, 2001. Tr. at 516:9–11, 17–19; 334:7–13.

162. Defendants also contend that no work was performed under one Aeolus task order, and that one Aeolus progress report was dated after the work was performed. Tr. at 548:4–18. Defendants do not contest the adequacy of the documentation of Aeolus costs. Tr. at 548:19–24.

163. The Volpe Center contract with Aeolus required the company to perform six tasks and produce deliverables related to the tasks. The tasks were: 1) review relevant asbestos literature to allow the government to make more relevant assessments of the risks posed at the Libby Asbestos Site; 2) review of the Libby Asbestos Site risk documentation; 3) obtain, review, and organize data to update existing recommended risk factors and exposure indexes; 4) reevaluate the appropriateness of the current mesothelioma model being used to derive recommended risk factors and exposure indexes; 5) apply the "new" risk models to available exposure and mortality data sets; and 6) complete modifications and revisions to finalize the existing methodology. Tr. at 47:6 to 48:6; 344:22 to 345:13. *See also* Exhibit 1192, at 10197, 10199–202.

164. Aeolus produced a two-volume final report and risk assessment model under the contract with the Volpe Center. Tr. at 48:10 to 49:4. *See also* Exhibit 1186; Exhibit 1187. The two-volume report included everything that Aeolus had produced as deliverables under the contract, including the epidemiological reviews and the bibliography as well as the revised or proposed risk assessment model that could be used for assessing asbestos risk. *See* Exhibit 1186; Exhibit 1187.

165. EPA was satisfied with Aeolus' work product and found it helpful to the work being done in Libby. Tr. at 49:18 to 50:17.

166. Aeolus provided the Volpe Center with progress reports that summarized the work that it did under the firm fixed-price contract with the agency. Tr. at 329:12–19.

167. Progress Report No. 2, which covered the period from February 6 to February 19, 2001, was dated June 28, 2002. Tr. at 330:11–19, 336:23 to 337:6. *See also* Exhibit 1183.

168. EPA relied on work produced by Aeolus in its work at the Libby Asbestos Site. Tr. at 51:15–19.

169. EPA included studies that Aeolus had identified in the Administrative Record for the Libby Asbestos Site and relied on them in its cleanup decisions; incorporated Aeolus' review of epidemiological studies in the sampling analysis plans it prepared for the Libby Asbestos Site; and used Aeolus' analysis of the type and toxicity of different types of asbestos fibers to help formulate its sampling plans at the Libby Asbestos Site. Tr. at 46:15–19, 47:6 to 48:6, 50:2–17. EPA specifically used Aeolus' work related to sampling in Libby, and the narrative information he provided about the epidemiological studies and the nature and behavior of asbestos. Tr. at 51:9–14.

170. One of Aeolus' tasks was to reassess the asbestos risk assessment methodology that was being used at the time because EPA Region 8 determined that that methodology may have been insufficient to protect the Libby community. Tr.

at 345:16 to 346:20. *See also* Exhibit 1191, at 10187–88; Exhibit 1192, at 10198–99. Though EPA has not used the quantitative risk model that Aeolus developed for risk assessment calculations at the Libby Asbestos Site thus far, it may do so in the future. Tr. at 51:15–17, 51:25 to 52:15.

171. The United States has proven by testimony and sufficient documentation it is entitled to recovery of $266,538.10 in Aeolus costs that EPA incurred through its interagency agreement with the Volpe Center.

c. EPA Indirect Costs

172. The cost of cleanups EPA performs under its CERCLA authority includes both direct and indirect costs. Tr. at 247:22 to 249:11.

173. Direct costs are costs incurred by an organization to produce a product or service. Tr. at 248:6–12. Examples of EPA's direct costs include the salary of EPA personnel for time spent directing cleanup activities at a site, the cost of travel to the site, and the cost of contractors performing work at the site. Tr. at 248:13–23.

174. Indirect costs are costs incurred by an organization that support the production of a product or service but which cannot be specifically identified with that product or service. Indirect costs are commonly called "overhead" costs. Examples of indirect costs include costs of rent, electricity, employee leave time, and the computer network. Tr. at 248:24 to 249:11.

175. EPA should account for the cost of its Superfund activities through both direct and indirect costs. Tr. at 553:9–11. Contracts, interagency agreements, and state cooperative agreements are part of EPA's activities within the Superfund program. Tr. at 553:12–15.

176. The Statement of Federal Financial Accounting Standards No. 4 ("Standard No. 4") is the generally accepted cost accounting principle applicable to the federal government. Tr. at 244:12–16; 551:19–24. *See also* Exhibit 1058, at 06356.

177. The EPA is required to follow Standard No. 4. Tr. at 244:20 to 245:2; 577:2–5; 577:18–23. Although other cost accounting standards exist, they do not apply to EPA's internal accounting. Tr. at 245:5–19.

178. Standard No. 4 does not require that EPA use any particular methodology to calculate its indirect costs, nor does it tell EPA how it must develop its methodology for calculating the indirect rate. Tr. at 551:25 to 552:6; 283:2–5.

179. Rather, the language of Standard No. 4 is intentionally broad to allow maximum flexibility for federal agencies in developing costing methodologies that best suit their agencies. Tr. at 283:6–15; 552:7–12. *See also* Exhibit 1058, at 06358.

180. The requirements of Standard No. 4 are: 1) cost accounting, or regularly reporting costs; 2) responsibility segments, or identifying organizations within EPA that produce products or services; 3) full costs, or identifying the full costs of outputs; 4) inter-entity costs, or costs incurred by other federal agencies that provide goods or services to the EPA; and 5) costing methodology, or using appropriate costing methodologies to accumulate and assign costs to outputs. Tr. at 246:12 to 247:5. *See also* Exhibit 1058, at 06357–58; Exhibit 415, at 05940.

(1) EPA's Revised Indirect Cost Methodology

181. Before Fiscal Year 2000, EPA employed a methodology based upon EPA labor hours charged to Superfund sites for determining its indirect costs. Tr. at 264:21 to 265:2. That methodology did not

take into account the complexity and magnitude of all of the activities that take place at a Superfund site, as labor hours are only a small component of site-specific costs. Tr. at 276:13–17. *See also* Exhibit 64, at 05895–96 (Guidance on Exercising CERCLA Enforcement Discretion in Anticipation of Full Cost Accounting Consistent with "Statement of Federal Financial Accounting Standards No. 4" (hereinafter "EPA Guidance on Standard No. 4"), 65 Fed.Reg. 35,339 (June 7, 2000)). EPA's pre–2000 methodology did not allow it to recover all of the Superfund program's indirect costs. Tr. at 265:10–12. *See also* Exhibit 64, at 05896.

182. The General Accounting Office ("GAO"), the EPA Office of Inspector General ("OIG"), the Office of Management and Budget ("OMB"), and Congress repeatedly criticized EPA's previous methodology for failing to identify the full cost of Superfund site cleanups and, therefore, failing to allow for potential recovery of all indirect costs. Tr. at 265:3–14. *See also* Exhibit 64, at 05896; Exhibit 415 at 05941 (GAO Report).

183. In 2000, EPA revised its methodology to employ a "full cost" methodology for indirect costs, based on the guidance in Standard No. 4. Tr. at 267:8–10, 266:13–19. *See also* Exhibit 1058, at 06359; Exhibit 64, at 05896–97. A full cost methodology identifies all appropriate indirect costs to a product. Tr. at 265:20–25.

184. The revised methodology allocates indirect costs to Superfund sites based on the total costs of cleaning up the sites. Tr. at 267:11–13. To compute its indirect cost rate, EPA identifies its total direct Superfund site expenditures by region and allocates indirect costs over that amount to produce a percentage. The allocation is the means to reflect the relationship of indirect costs to direct expenditures for the Superfund program. *See* Tr. at 267:14–18. To determine indirect costs attributable to an individual Superfund site, that percentage is then multiplied by total direct costs for the individual site. Tr. at 267:19–21. *See also* Exhibit 64, at 05895.

185. Under the revised methodology, there are four steps to calculate EPA's indirect costs for a particular Superfund site: 1) identify the pool of indirect costs for Superfund sites within each EPA region; 2) identify the allocation base, or the total amount of site-specific direct costs incurred within each EPA region; 3) compute the indirect rate; and, 4) apply the indirect rate to the particular Superfund site in question. Tr. at 268:4–7, 269:13–15, 271:15–17, 272:16–21.

186. The indirect cost pool for the Superfund program includes indirect costs such as rent, electricity, training, management and supervision of employees, and the management and implementation of the Superfund program as a whole. Tr. at 268:4–13. EPA's direct costs and EPA's indirect costs associated with other programs besides Superfund, such as EPA's water program, are excluded from the indirect cost pool. Tr. at 268:14 to 269:1. There is a different indirect cost pool for each region within EPA. Tr. at 269:2–12.

187. The allocation base is the mechanism used to allocate the direct costs associated with the Superfund program to the program's output, or in this case, Superfund activity. Tr. at 269:16–18, 269:22 to 270:20. Under EPA's revised methodology, the allocation base is total site-specific costs. Tr. at 269:19–21.

188. Total site-specific costs is a reasonable basis for allocating direct costs because it reflects the magnitude and complexity of all of the Superfund Program's activities at contaminated sites. Tr. at 270:25 to 271:11.

189. To compute the indirect rate, EPA takes the indirect cost pool and di-

vides it by the allocation base to produce a percentage. Tr. at 271:21 to 272:4. A separate rate for each fiscal year is generated for each regional office within EPA, and that rate applies to all sites in that region. Tr. at 272:14–15.

190. To determine the amount of indirect costs charged to a particular Superfund site, EPA multiplies the indirect rate percentage by the total direct costs for that site. Tr. at 272:16–21.

(a) EPA's Revised Indirect Cost Methodology Satisfies Standard 4

191. EPA's revised indirect methodology complies with the five requirements of Standard No. 4, because the agency has 1) reported the costs of its Superfund activities on a regular basis; 2) identified organizations that produce major products or services; 3) identified the full costs of producing those products or services; 4) identified inter-entity costs, or costs from other federal organizations that provide products or services to the EPA; and 5) provided a means of identifying all of the agency's costs so that they can be assigned to outputs. Tr. at 282:2–25, 283:16–19, 588:6–12; Exhibit 415, at 05943–49.

192. EPA's revised methodology is an appropriate accounting measure of its indirect costs charged to Superfund sites, including the Libby Asbestos Site. Tr. at 293:12–19, 588:9–12.

(b) Defendants' Challenges to EPA's Revised Methodology Are Unavailing

193. Defendants generally challenge EPA's revised methodology based on their contention that the revised methodology does not comply with generally accepted accounting principles. Tr. at 464:23 to 465:10, 472:3–12, 484:6–9, 485:7–10, 488:7–10, 488:22–24, 489:6–10. I find Defendants' arguments unavailing and, specifically, find that the testimony of Defendants' expert Dale R. Jensen is not credible.

i. There Is No One–Size–Fits–All Approach To Indirect Cost Methodologies

194. Standard No. 4 is broad to allow federal agencies maximum flexibility in developing costing methodologies that best suit their agencies. Exhibit 1058, at 06358. This is because different agencies have different objectives, and, therefore, their costing methodologies may vary. Tr. at 589:12 to 590:5.

195. No formal conclusions can be drawn from the fact that EPA and ATSDR use different methodologies to calculate indirect costs. Tr. at 589:12 to 590:1.

ii. It Is Appropriate for EPA To Include Indirect Costs of Other Agencies and Contractors in Its Allocation Base

196. It is appropriate for EPA to include the indirect costs of those who have performed services for EPA, and their contractors or subcontractors, in the Superfund program's allocation base under the revised indirect cost methodology. Tr. at 573:21 to 575:20. All of the Superfund program's costs, including the indirect costs of those who have performed services for the Superfund program, are necessary to produce the cleanup of contaminated sites. *Id.* Consequently, these costs are appropriately included as part of the total cost of activity at the site. *Id.*

iii. EPA's Outputs Are Properly Defined

197. Standard No. 4 states that outputs should represent the products and services being provided by the government organization. Tr. at 262:8–13, 579:9–13. *See also* Exhibit 1058, at 06388–89.

198. The Superfund program's outputs are primarily the cleanup of contaminated sites. Tr. at 262:14–17. Management and oversight are part of cleaning up contaminated sites. Tr. at 262:23 to 263:11.

199. Accordingly, EPA's revised indirect cost methodology complies with Standard No. 4's requirement that the outputs of the Superfund program be properly defined. Tr. at 579:2–19, 580:7–14.

iv. EPA's Indirect Cost Pool Is Allocated Based on Benefits Received

200. Standard No. 4 states that for indirect costs, it is preferable that they be allocated to outputs on a cause-and-effect basis. Tr. at 580:15 to 582:14. *See also* Exhibit 1058, at 06407. Identifying the outputs of an organization will result in good allocation of indirect costs. Tr. at 263:12–20.

201. As discussed above, the outputs of EPA's Superfund program are primarily the cleanup of contaminated sites. Tr. at 262:14–17. Under the revised methodology, EPA uses total site-specific expenditures, or total direct costs, to represent the output of EPA's Superfund program. Tr. at 269:19–21.

202. Because labor hours are a small part of the total output of the Superfund program, allocating EPA's indirect cost pool over a base of labor hours would not reflect the benefits received because it does not best represent total activity of the Superfund program. Tr. at 582:25 to 583:9.

203. EPA's revised methodology for calculating indirect costs does not distort the allocation base because total site-specific expenditures best represent the total activity of the Superfund program, not labor hours. Tr. at 595:21 to 596:6.

204. Because EPA's indirect cost pool is allocated on a cause-and-effect basis, it complies with Standard No. 4. Tr. at 584:6–10.

v. EPA Measures the Full Cost of Its Outputs

205. Standard No. 4 states that government entities should report the full costs of outputs. *See* Exhibit 1058, at 06388. As applied to the Superfund program, Standard No. 4 requires EPA to measure its full cost of cleaning up contaminated sites.

206. EPA's revised methodology for calculating indirect costs does not include the costs that third party potentially responsible parties ("PRPs") incur cleaning up contaminated sites. Tr. at 274:5–8, 584:16–24. Standard No. 4 requires that the EPA measure only the internal costs of its outputs, or, in the context of Superfund, only the costs that the agency incurs in cleaning up contaminated sites. *See* Exhibit 1058, at 06388.

207. It would be difficult and impractical for the EPA to include PRP cleanup costs in measuring outputs. Tr. at 274:9–19. Even if the agency were able to obtain and track PRP costs, including them in the allocation base would not be a good measure of EPA's outputs because PRP costs go beyond that which the agency has incurred. Tr. at 585:13–24. Such a measure of outputs would be inconsistent with Standard No. 4. *Id.* This is true even though indirect costs will vary significantly under EPA's revised indirect cost methodology depending upon whether EPA or PRPs conduct a cleanup. Tr. at 279:15 to 281:1.

208. EPA's revised methodology for calculating indirect costs measures the full internal cost of the outputs of the Superfund program. Therefore, the methodology complies with Standard No. 4. Tr. at 585:25 to 586:3.

vi. EPA's Indirect Cost Pool is Homogeneous

209. Standard No. 4 states that costs that have a similar cause-and-effect relationship to outputs can be grouped into cost pools. *See* Exhibit 1058, at 06407. In accounting terminology, this concept is known as "homogeneity." *Id.*

210. Homogeneity can be achieved if all of the activities in an indirect cost pool are similar or if the activities in an indirect cost pool are disparate, as long as their relationship to the output is similar. Exhibit 1058 at 06407; Tr. at 587:1–8.

211. For example, though program costs such as finance, personnel, and legal may be considered disparate, they are homogeneous from an accounting perspective if they have a similar cause-and-effect relationship to the outputs, or, here, the cleanup of contaminated sites. Tr. at 587:15–20.

212. The elements that make up EPA's indirect cost pool under the Superfund program have a similar relationship to outputs under the revised methodology. Tr. at 587:9–20. Therefore, EPA's indirect cost pool is homogeneous and complies with Standard No. 4. Tr. at 587:21 to 588:5.

(c) Defendants' Cost Expert Does Not Know What Methodology EPA Should Use

213. Defendants' accounting expert Dale Jensen does not know what methodology the EPA should use to recover its indirect costs. Tr. at 553:16–19.

(d) Independent Evaluators Have Approved EPA's Revised Indirect Cost Methodology

214. Before publishing its revised methodology for calculating indirect costs, EPA sought independent evaluations of the methodology from the accounting firm of KPMG and from the GAO. Tr. at 285:8–18. EPA sought these reviews because the previous methodology had been criticized for years, and the EPA wanted third party evaluations of the revised methodology before it was issued. Tr. at 286:5–15, 290:15–21.

i. The GAO Report

215. The GAO concluded that EPA's revised indirect methodology complies with each specific accounting standard set forth in Standard No. 4. Tr. at 288:19–25. *See also* Exhibit 415, at 05943–49.

216. The GAO noted that EPA's revised methodology is designed to provide an accurate accounting of the full costs of Superfund site response for recovery from responsible parties. Tr. at 286:16–19, 286:21 to 287:2. *See also* Exhibit 415, at 05938–39.

217. The GAO also concluded that EPA's use of an allocation base composed of total site-specific expenditures in its revised indirect methodology is appropriate. Tr. at 287:3–5, 287:24 to 288:1. *See also* Exhibit 415 at 05939.

218. The GAO found that compared to EPA's previous methodology, the revised methodology better reflects the true indirect costs associated with site cleanups. Tr. at 288:7–15. *See also* Exhibit 415, at 05951.

ii. KPMG Report

219. The accounting firm KPMG reviewed EPA's revised indirect methodology and concluded that it both complies with Standard No. 4 and provides a better process for estimating and allocating total Superfund indirect costs. Tr. at 291:1–18. *See also* Exhibit 416, at 05973–74, 05979.

220. KPMG also concluded that EPA's revised indirect methodology was simpler, easier to understand, more thorough and more complete than the previous method-

ology. Tr. at 291:1–18. *See also* Exhibit 416, at 05979.

(2) Applicable Indirect Cost Rate

221. To determine the total indirect costs charged to a specific Superfund site, EPA multiplies the indirect rate percentage by the total direct costs associated with the specific site.

222. EPA's indirect rate is determined annually. Tr. at 277:7–8. Indirect cost rates are based upon actual expenditures at Superfund site for a particular year. Tr. at 319:1–6. The actual indirect cost rate cannot be determined for any given year until all costs for that year have been incurred and the final rate is calculated. Tr. at 317:3–15. The process of finalizing an indirect rate includes performing a computation, reviewing that computation to ensure that the right amounts are included or excluded, and preparing a memorandum that announces the rate for a particular year. Tr. at 319:12 to 320:9.

223. EPA incurs indirect costs on an on-going basis during a fiscal year. Tr. at 318:11–12. EPA establishes a "provisional" indirect rate to identify indirect costs until the actual indirect rate for a particular fiscal year can be computed and finalized. Tr. at 277:9–15, 318:9–22, 319:9–11.

224. The provisional indirect rate for a fiscal year for which an actual indirect rate has not been finalized is the actual indirect rate for the most recent fiscal year for which such a rate has been finalized. Tr. at 317:18–23.

225. Use of provisional rates until actual rates are issued is standard practice by government agencies and in the private sector. Tr. at 277:16–18, 320:24 to 321:5.

226. The indirect rate for Fiscal Year 1999 is 35.53%. At the time of trial, EPA had not finalized actual indirect rates for Fiscal Years 2000 and 2001; as a result, the provisional rate for both fiscal years is the Fiscal Year 1999 indirect rate, or 35.53%. Tr. at 278:6–9, 278:15–23.

227. The United States has informed the defendants and the Court that the indirect rates for the two fiscal years were finalized shortly after trial, and that the actual rate for Fiscal Year 2000 is 38.84 % and the actual rate for Fiscal Year 2001 is 34.28%. *See* United States' Notice of EPA Issuance of Actual Indirect Cost Rates for Fiscal Years 2000 and 2001, filed April 14, 2003, at 1.

228. Defendants object to using the actual rates for Fiscal Year 2000 and 2001 because they were not introduced at trial. The United States does not seek to use the actual rates, but proposes using the provisional rate. Because using the provisional rate will inure to Defendants' benefit, I will apply the provisional rate for Fiscal Years 2000 and 2001.

(3) EPA's Indirect Costs at the Libby Site

229. A cost recovery package that documents costs that EPA incurred at the Libby Asbestos Site through December 31, 2001, was generated from EPA's IFS and SCORPIOS systems. Tr. at 255:13–25, 257:7–10, 257:15 to 258:6. *See also* Exhibit 1128, at 08170–71.

230. The Libby Asbestos Site Cost Recovery Package documents that $43,602,396.16 in direct and indirect costs were incurred at the Libby Asbestos Site through December 31, 2001. *See* Exhibit 1128, at 08171. However, some costs have been added and others deleted from the amount set forth in the Libby Asbestos Site Cost Recovery Package to reflect the results of negotiations between the parties. Tr. at 292:7–16, 547:25 to 548:3. The total amount of EPA's *direct* costs incurred through December 31, 2001, that is sought in this case is $31,866,663.83.

231. EPA's total indirect costs associated with the Libby Asbestos Site through December 31, 2001, can be obtained by multiplying the provisional indirect cost rate of 35.53% by the amount of EPA's Libby Asbestos Site direct costs, or $31,866,663.83. The result is $11,322,225.66.

d. Mistake In Initial Cost Summary Package for Site

232. There was a mistake in the initial cost summary package for the Libby Asbestos Site: a portion of ATSDR's costs were included in EPA's cost summary package twice. Tr. at 259:6–12. This occurred because the EPA funded directly, through a site-specific inter-agency agreement, part of ATSDR's work conducted at the Libby Asbestos Site. Tr. at 260:13–22. It is rare that EPA enters into site-specific IAGs with ATSDR for work at Superfund sites. Tr. at 260:3–8, 260:23–24, 261:12–15.

233. The EPA identified the mistake related to the double-count of ATSDR's costs and notified the Court and Defendants before trial. Tr. at 547:2–4. *See also* United States' Motion To Partially Withdraw Motion For Partial Summary Judgment On Response Costs And On Defendants' Second Affirmative Defense As It Relates To ATSDR Costs (filed December 2, 2002).

234. The ATSDR costs presented at trial are correct. Tr. at 261:16–19. They do not come from EPA's SCORPIOS system, but rather directly from ATSDR in the form of an ATSDR cost recovery package. Tr. at 547:14–24.

235. The EPA has taken steps to keep a similar mistake from happening in the future, including notifying regional Superfund accountants to be aware of site-specific IAGs with ATSDR and how those costs are tracked. Tr. at 261:20 to 262:3.

236. Defendants point to this double-counting error and other billing errors to claim they have rebutted the presumption of accurate accounting. However, all of the errors Defendants rely on were corrected before trial.

237. Defendants were not able to point to any existing errors in EPA's account and, thus, have failed to rebut the presumption of accurate accounting.

238. I find by a preponderance of evidence that EPA has accurately accounted for $31,866,663.83 in direct costs related to the Libby Asbestos Site.

II. CONCLUSIONS OF LAW

A. CERCLA LIABILITY AND DEFENSES

1. Grace–Conn. and KDC Are Liable Parties Under CERCLA

239. Grace–Conn. is liable under CERCLA for the cleanup of asbestos at the Libby Asbestos Site properties. Those properties are the Mine Site, the former Screening Plant, the Flyway, the Bluffs, the former Export Plant, the Libby High School, the Libby Middle School, Plummer Elementary School, Kootenai Valley Christian School, Champion Haul Road, Rainy Creek Road, and the following residential or commercial properties in and near Libby, Montana: Beaulia, Belangie, Bowker, Brown (653 Flower Creek), Brown (346 Granite), Brownlee, Burshia, Cady, Calhoun, Cote, Dennis, Downey, Drury, Epperson, Fuhlendorf, Geer, Graham, Hebenstreit, Hilliard, Hoff, Jacabson, Jeresek, Jordon, Kootenai Angler, Long, McCulley, Mohr, Munro, Nixon, Nores, Parker (1421 Main), Parseau, Peterson, Phillips, Powers (2297 Kootenai River Rd.), Powers (2293 Kootenai River Rd.), Ray, Rice, Rodgers, Sanderson (123 Hamann), Sanderson (4241 Hwy 37), Sanderson (112 Oak), Schenck, Skramstad, Siefke, Smith, Spencer (500 Jay Effar), Spencer (229 Pinewood), Spencer Law Firm,

Struck, Stubbs, Temple, Visger, Westfall, Wilkes (461 Parmenter),Wilkes (600 Ave. B). 42 U.S.C. § 9607(a).

240. KDC is liable under CERCLA for the cleanup of asbestos at the Libby Asbestos Site properties that KDC currently owns, namely the Mine Site, Kootenai Bluffs and Kootenai Flyway. 42 U.S.C. § 9607(a)(1).

2. Neither Grace–Conn. nor KDC Are Entitled To CERCLA's Affirmative Defenses

241. CERCLA provides that there shall be no liability "for a person otherwise liable who can establish by a preponderance of the evidence that the release or threat of release of a hazardous substance and the damages resulting therefrom were caused solely by—(1) an act of God; (2) an act of war; (3) an act or omission of a third party . . .; or (4) any combination" thereof. 42 U.S.C. § 9607(b). These are the only affirmative defenses CERCLA permits. *See, e.g., Town of Munster v. Sherwin–Williams Co.,* 27 F.3d 1268, 1270 (7th Cir. 1994); *California Dept. of Toxic Substances Control v. Alco Pacific, Inc.,* 217 F.Supp.2d 1028, 1038–40 (C.D.Cal.2002).

242. The Parties stipulate that the releases or threatened releases of asbestos at the properties which form the Libby Asbestos Site were not caused solely by an act of war, or an act or omission of a third party. Revised Agreed Facts 52–53.

[1] 243. The presence of asbestos in Libby "is not a 'natural phenomenon of an exceptional, inevitable, and irresistible character' and, therefore, is not an appropriate Act of God defense." Order of December 19, 2002, at 22. While the Court's December 19, 2002, Order addressed only KDC's act of God defense, the same reasoning applies to Grace–Conn. Moreover, Grace–Conn. did not present its act of God defense at trial. Accordingly, Grace–Conn.'s act of God defense must fail.

3. Grace–Conn.'s Contention that EPA Violated CERCLA's Limitation on Responding To Naturally–Occurring Substances Fails

[2] 244. Subject to exceptions that do not apply here, the NCP provides that "a removal or remedial action . . . shall not be undertaken in response to a release: (1) Of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found." 40 C.F.R. § 300.400(b). This limitation on response is derived from CERCLA itself. *See* 42 U.S.C. § 9604(a)(3)(A).

245. Defendants contend that EPA responded to naturally-occurring asbestos when it excavated portions of the Parker parcel to a depth of over 12 feet, thereby violating the limitation on response found in CERCLA and the NCP. *See* Tr. at 5:11–18.

[3] 246. Defendants' argument is impermissible under the law-of-the-case doctrine for two independent reasons. First, the Court has already determined that EPA's response action was not inconsistent with the NCP in its ruling granting the United States' motion for partial summary judgment on Defendants' Third Affirmative Defenses. Order of December 19, 2002, at 9–14. A partial summary judgment ruling is law of the case and should not be changed in subsequent proceedings "without good reason." *Carr v. O'Leary,* 167 F.3d 1124, 1126 (7th Cir. 1999). Defendants' have not presented good reason to reconsider this finding.

[4] 247. Second, in opposing the United States' motions for partial summary judgment on liability, both Defendants contended that EPA's response action in Libby violated 42 U.S.C. § 9604(a)(3)(A). The Court rejected this contention with respect to KDC, stating: the record before

the Court establishes that the EPA responded to asbestos and asbestos-contaminated vermiculite that was a by-product of vermiculite processing. This does not qualify as "a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena." 42 U.S.C. § 9604(a)(3)([A]). Therefore KDC has failed to point to material facts that it is entitled to assert . . . [a] naturally-occurring substance defense. Order of December 19, 2002, at 22. The Court's conclusion as to KDC also applies to Grace–Conn., and is law of the case here. *See Carr,* 167 F.3d at 1126.

[5] 248. Even aside from the procedural arguments, Grace–Conn.'s naturally-occurring substance argument lacks merit. Defendants have failed to show by a preponderance of the evidence that the response action involved a "naturally occurring substance in its unaltered form." In fact, the evidence presented at trial demonstrates that EPA's response actions in Libby were undertaken in response to releases and threats of releases associated with mined and processed vermiculite, not to a "naturally occurring substance in its unaltered form." Consequently, EPA's response action does not conflict with the limitation on responses set forth at 42 U.S.C. § 9604(a)(3)(A).

249. Moreover, the evidence presented at trial demonstrates that Grace–Conn.'s own mining activities exposed asbestos to the elements. This increased the amount of asbestos in runoff that deposited on the Screening Plant property. This is not naturally-occurring asbestos. *See United States v. Iron Mountain Mines, Inc.,* 812 F.Supp. 1528, 1548 (E.D.Cal.1992) ("To the extent that mining may have exposed more ore to weather, it may have non-naturally increased the amount of [hazardous substances] released into the environment."). So long as EPA's response action was undertaken in response to releases and threats of releases associated with mined and processed vermiculite, the alleged incidental removal of some naturally occurring asbestos is not inconsistent with the NCP.

250. Grace–Conn.'s contention that EPA's excavation of soils to a depth of as much as 20 feet on a portion of the Parker property (once part of the Screening Plant) must have removed naturally-occurring asbestos is not compelling. The evidence presented at trial demonstrates that this area was most likely a borrow pit or depression that had been filled with processed vermiculite. Such material is not naturally occurring in its unaltered form. EPA's removal of this material at significant depth is not arbitrary and capricious, particularly in light of EPA's understanding that the Parker family intends to build a home in this area.

B. RECOVERABILITY OF COSTS

251. CERCLA authorizes the United States to recover from liable parties "*all costs* of removal or remedial action incurred by the United States Government . . . not inconsistent with the national contingency plan." 42 U.S.C. § 9607(a)(4)(A) (emphasis added). CERCLA also authorizes the United States to recover "the costs of any health assessment or health effects study carried out under section 9604(i)." 42 U.S.C. § 9607(a)(4)(D).

1. Undisputed Costs

252. The Parties have stipulated to the adequacy of documentation for $32,972,125.73 in costs. Grace–Conn. is liable under CERCLA for each of the properties currently at issue, as discussed above. Moreover, this Court has rejected Grace–Conn.'s contention that EPA's cleanup action was inconsistent with the NCP. *See* Order of December 19, 2002, at 14, 22. Accordingly, Grace–Conn. is liable for $32,972,125.73 in undisputed costs.

2. ATSDR's Costs are Recoverable.

a. ATSDR's Activities Are Health Effects Studies or Removal Actions

253. ATSDR incurred costs in conducting the following activities related to the Libby Asbestos Site: (i) the Medical Testing Program, (ii) the Mortality Analysis; (iii) the Pilot Study of Environmental Cases; (iv) the CT Study; (v) health education; (vi) the tracing project/Tremolite Asbestos Registry; and (vii) the substance-specific health consultation on tremolite asbestos.

254. Each of these activities was either a "health effects study," a "removal action," or both. Costs for both types of activities are recoverable under CERCLA. 42 U.S.C. § 9607(a)(4)(D); (a)(4)(A).

255. A "removal action" is defined in CERCLA as:

> the cleanup or removal of released hazardous substances from the environment, such actions as may be necessary [to take] in the event of the threat of release of hazardous substances into the environment, such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances, the disposal of removed material, *or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare* or to the environment, which may otherwise result from a release or threat of release.

42 U.S.C. § 9601(23)(emphasis added). A removal action is a type of response action. 42 U.S.C. § 9601(25).

[6] 256. Though not specifically defined in CERCLA, ATSDR has promulgated regulations defining "health effects study." These regulations, and ATSDR's interpretation of them, must be accorded considerable weight. *See United States v. Mead Corp.,* 533 U.S. 218, 227, 121 S.Ct. 2164, 150 L.Ed.2d 292 (2001) (agency interpretation of a statutory provision that it is charged with implementing is entitled to deference); *League of Wilderness Defenders/Blue Mountains Biodiversity Project v. Forsgren,* 309 F.3d 1181, 1183 (9th Cir. 2002) (agency's interpretation of its own regulations is entitled to deference unless plainly erroneous, inconsistent with the regulation, or based on an impermissible construction of the governing statute).

257. "Health effects study" is defined as:

> research, investigation, or study performed by ATSDR or other parties pursuant to an agreement with ATSDR to evaluate the health effects of exposure to hazardous substances at specific sites. This term includes, but is not limited to, epidemiological studies, exposure and disease registries, and *health surveillance programs.* This term does not include health assessments.

42 C.F.R. § 90.2 (emphasis added).

[7] 258. As part of the Medical Testing Program, ATSDR administered pulmonary function tests and chest x-rays to thousands of current and former Libby residents to determine whether they individually, and whether Libby residents generally, suffered adverse health effects from exposures to asbestos. The Medical Testing Program is a "health effects study," as it was an investigation or study "to evaluate the health effects of exposure to hazardous substances at particular sites." 42 C.F.R. § 90.2.

259. Defendants argue that the Medical Testing Program was a health surveillance program. This distinction, however, is irrelevant, as a health surveillance program is by definition a health effects study. 42 C.F.R. § 90.2 (defining "health effects study" to specifically include health surveillance programs).

[8] 260. Even if health surveillance programs did not fall under the definition

of health effects studies, the Medical Testing Program was an action "necessary to prevent, minimize, or mitigate damage to the public health and, therefore, the costs are recoverable under 42 U.S.C. § 9607(a)(4)(A)." *See Hanford Downwinders Coalition, Inc. v. Dowdle,* 71 F.3d 1469, 1475–80 (9th Cir.1995) (surveillance program a response action).

261. The United States is entitled to recover the costs of "health effects studies." 42 U.S.C. § 9607(a)(4)(D). Accordingly, the full costs of the Medical Testing Program are recoverable.

[9] 262. Similarly, the Mortality Analysis, Pilot Study of Environmental Cases, CT Study, and tracing project are each health effects studies. 42 U.S.C. § 9604(i)(4). The full costs of each of these activities are recoverable under CERCLA. 42 U.S.C. § 9607(a)(4)(D).

[10] 263. ATSDR's Libby-based health education activities and the substance-specific health consultation on tremolite asbestos were undertaken as part of the government's "removal action" at the Libby Asbestos Site. The full costs of these activities are recoverable as response costs under CERCLA. 42 U.S.C. § 9607(a)(4)(A).

b. ATSDR's Sequencing of Its Health–Related Activities Was Appropriate

264. Defendants contend that ATSDR cannot recover the costs of its health-related activities in Libby because they were improperly sequenced. Defendants' argument is apparently based on two CERCLA provisions. First, Defendants contend that CERCLA requires ATSDR to conduct a health assessment before undertaking any other health-related activities. Second, Defendants contend that CERCLA prevents ATSDR from conducting a medical surveillance program without first conducting a health assessment, an epidemiological study or exposure registry. Defendants' arguments misconstrue both provisions of CERCLA.

[11] 265. CERCLA requires ATSDR to perform a health assessment within a statutorily prescribed period of time, usually within one year of the date a site is proposed for listing on the National Priorities List ("NPL"). 42 U.S.C. § 9604(i)(6)(A). CERCLA does not require that a health assessment be performed before other health-related studies can be conducted. Thus, CERCLA does not prohibit ATSDR from conducting health-related activities before NPL listing or before publication of the health assessment that must be concluded within one year of NPL listing.

[12] 266. Similarly, CERCLA requires ATSDR to initiate a health surveillance program when it determines, based on a health assessment, epidemiological study or exposure registry, that there is a significant increased risk of adverse health effects resulting from an exposure to hazardous substances. 42 U.S.C. § 9604(i)(9). The statute does not provide that a health surveillance program is authorized based only on information contained in a health assessment, epidemiological study or exposure registry. CERCLA allows ATSDR to conduct medical surveillance programs at its discretion in other circumstances. *See, e.g.,* 42 U.S.C. § 9604(i)(1)(E). Accordingly, even assuming the Medical Testing Program is a health surveillance program, it is not required to be preceded by a health assessment, epidemiological study or exposure registry.

267. Defendants' interpretation also ignores language in ATSDR's annual appropriation in which Congress clearly demonstrates that a health assessment need not be done first:

> notwithstanding any other provision of law, in lieu of performing a health assessment under section 104(i)(6) of

> CERCLA [42 U.S.C. § 9604(i)(6)], the Administrator of ATSDR may conduct other appropriate health studies, evaluations or activities, including, without limitation biomedical testing, clinical evaluations, medical monitoring, and referral to accredited health care providers.

Appropriations, 2000—Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies, Pub.L. No. 106–74, 113 Stat. 1047. *See also* Departments of Veterans Affairs and Housing and Urban Development—Appropriations, Pub.L. No. 106–377, 114 Stat. 1441; Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 2002, Pub.L. No. 107–73, 115 Stat. 651. Accordingly, Congress' expression on the sequencing of health activities in ATSDR's appropriations language contradicts Defendants' interpretation.

268. Defendants' sequencing arguments also run contrary to ATSDR's interpretation of CERCLA in its regulations. First, ATSDR's regulations expressly provide that the agency may conduct health effects studies before completing a health assessment:

> ATSDR may decide, in its discretion, based upon the results of a health assessment or other available information, to conduct a health effects study for a particular site or sites. *Such a decision may, in appropriate circumstances, be made prior to the completion of a health assessment for a site or sites.*

42 C.F.R. § 90.7(a) (emphasis added). Second, the preamble to ATSDR's regulations makes clear that ATSDR's response to public health threats is not confined to the inflexible, formalistic sequence advanced by Defendants:

> Two comments suggested that ATSDR adhere strictly to the sequence of health assessments and health effects studies set forth in section 104(i) of CERCLA. Among other things, section 104(i)(6) directs ATSDR to conduct health assessments at all sites on, or proposed for inclusion on, the NPL, as well as authorizes the Agency to conduct health assessments in response to requests from the public. This section specifies that one purpose of a health assessment is to determine the need for health effects studies, such as an epidemiological study, registry, or health surveillance program. Section 104(i)(7) furthermore states that on the basis of a health assessment, ATSDR may decide to conduct a pilot study to determine the desirability of conducting a full-scale epidemiological or other health effects study.
>
> ATSDR will generally follow the sequential approach outlined in sections 104(i)(6), (7), (8) and (9) of CERCLA (health assessment, and where appropriate, followed by a pilot study, epidemiological study, registry, and health surveillance program). However, *ATSDR recognizes that instances arise where the public health is not served by a strict adherence to this sequential approach. For instance, circumstances at a particular site may necessitate the immediate commencement of a pilot study or other activity prior to the completion of a health assessment for the site. This approach is consistent with the language and intention of CERCLA. ATSDR does not interpret the sequential approach set forth in section 104(i) of CERCLA to constitute the exclusive manner in which ATSDR is to fulfill its public health responsibility.* ATSDR generally will follow this sequential approach; however, it is necessary to retain flexibility in responding to emergency or other unique circumstances in an appropriate manner.

55 Fed.Reg. 5136, 5137 (Feb. 13, 1990) (preamble to 42 C.F.R. Part 90) (emphasis added).

269. ATSDR's interpretation of a statutory provision that it is charged with implementing is entitled to deference. *See Mead*, 533 U.S. at 227, 121 S.Ct. 2164. Defendants have not established that ATSDR's interpretation is clearly erroneous or otherwise contrary to law.

270. ATSDR is authorized under 42 U.S.C. § 9604(i)(1)(E) to conduct medical testing, such as that performed at the Libby Asbestos Site as part of the Medical Testing Program.

c. ATSDR's Costs are Adequately Documented

[13] 271. Defendants contend that the United States is not entitled to recover any of ATSDR's costs because they are not adequately documented. The United States has provided extensive documentation of the costs ATSDR has incurred. The documentation compares to that found sufficient to prove CERCLA response costs cases in the Ninth Circuit and elsewhere. This documentation establishes a *prima facie* case that the United States is entitled to its response costs. *See United States v. Hardage*, 982 F.2d 1436, 1443 (10th Cir.1992). The burden then shifts to Defendants to rebut the costs. *See id.* Defendants have not met this burden.

(1) Defendants Bear the Burden of Proving Any Alleged Inconsistency With the NCP

[14–16] 272. Once the United States establishes its *prima facie* case on CERCLA liability, the burden shifts to the defendant to prove the response action was inconsistent with the NCP. *United States v. Chapman*, 146 F.3d 1166, 1170 (9th Cir. 1998); *Washington State Dep't of Transp. v. Washington Natural Gas Co.*, 59 F.3d 793, 800 (9th Cir.1995). When a CERCLA defendant claims the United States cannot recover its costs because of an inconsistency with the NCP, the defendant must prove the inconsistency exists and the amount of additional costs that were incurred as a result of the inconsistency. *See United States v. Findett Corp.*, 220 F.3d 842, 849 (8th Cir.2000); *United States v. Burlington N. R.R. Co.*, 200 F.3d 679, 695 (10th Cir.1999) (defendant must prove inconsistency with NCP led to "demonstrable excess costs"); *Chapman*, 146 F.3d at 1170–71; *California v. Neville Chem. Co.*, 213 F.Supp.2d 1134, 1138–41 (C.D.Cal. 2002). A CERCLA defendant cannot challenge the adequacy of the government's cost documentation by raising "vague challenges to the validity of those costs based on the government's evidence," but instead must offer specific evidence to counter the government's documentation of its direct costs. *United States v. R.W. Meyer, Inc.*, 889 F.2d 1497, 1508 (6th Cir.1989).

(2) Courts Have Held a Broad Range of Cost Documents Sufficient to Establish a Prima Facie Case

273. The NCP contains a general admonition to complete and maintain documentation to support cost recovery actions:

> During all phases of response, the lead agency shall complete and maintain documentation to support all actions taken under the NCP and to form the basis for cost recovery. *In general*, documentation shall be sufficient to provide the source and circumstances of the release, the identity of responsible parties, the response action taken, accurate accounting of federal, state or private party costs incurred for response actions, and impacts and potential impacts to the public health and welfare and the environment.

40 C.F.R. § 300.160(a)(1) (1990) (emphasis added).

[17, 18] 274. This provision does not establish prescriptive standards for the

content of cost documents. Generally, a cost is inconsistent with the NCP only if the response action itself was inconsistent with the NCP. *See, e.g., Hardage,* 982 F.2d at 1443; *United States v. Kramer,* 913 F.Supp. 848, 862 (D.N.J.1995). 40 C.F.R. § 300.160 does not impose any additional documentation requirements on the government, beyond what is sufficient to persuade the court that the costs have been proven by a preponderance of the evidence. Indeed, courts that have examined this provision of the NCP have recognized that it "does not contain any specific standards concerning the documentation of costs." *United States v. Chrysler Corp.,* 168 F.Supp.2d 754, 769 (N.D.Ohio 2001); *United States v. Findett Corp.,* 75 F.Supp.2d 982, 991 (E.D.Mo.1999), *aff'd,* 220 F.3d 842 (8th Cir.2000).

275. The NCP requires only that "in general" documentation be sufficient to provide an accurate accounting of costs incurred. Notably, the NCP does not define "accurate accounting" or otherwise elaborate on what is meant by "sufficient." *Neville,* 213 F.Supp.2d at 1138; *Chrysler,* 168 F.Supp.2d at 769; *Findett,* 75 F.Supp.2d at 991.

276. In the absence of regulatory guidance on the meaning of "accurate accounting," courts have applied civil evidentiary standards to assess the adequacy of cost documentation supporting a CERCLA cost recovery claim, rather than imposing any additional burden. In *Chapman,* for example, the Ninth Circuit affirmed a grant of summary judgment for the United States in a CERCLA case. Among other things, the Court found that no genuine issue of material fact existed as to whether EPA had "adequately documented" the costs it had incurred. *Chapman,* 146 F.3d at 1171. The Court specifically referenced the "detailed cost summaries" the government had submitted, the "extensive documentation of costs in the form of time sheets and payroll documents" and "declarations from EPA staff, attorneys, accountants, and supervisors attesting to the work they performed and the time spent on the Chapman site." *Id.*

277. The same approach has been applied in other Circuits. In *Findett,* the Eighth Circuit upheld a grant of summary judgment on CERCLA response costs, finding "detailed cost summaries, supporting data, and other competent evidence" were sufficient to support the government's cost claim. *Findett,* 220 F.3d at 849. Similarly, the Tenth Circuit has upheld a grant of summary judgment on CERCLA response costs where the costs were documented by affidavits of government employees responsible for maintaining cost data supported by "summaries of cost data." *Hardage,* 982 F.2d at 1442–43. *See also United States v. Chromalloy Am. Corp.,* 158 F.3d 345, 352 (5th Cir.1998) (concluding that "detailed cost summaries" provided an adequate basis to find EPA's oversight costs reasonable and necessary).

278. Numerous district courts have taken the same approach to assessing the adequacy of CERCLA cost documentation. *See, e.g., Neville,* 213 F.Supp.2d at 1138–41 (time sheets sufficient to document payroll costs; travel expense reports and related documentation sufficient to document travel costs; contractor invoices sufficient to document contract costs); *Chrysler,* 168 F.Supp.2d at 769, 774 (contractor vouchers/invoices, invoice approval forms, and Treasury schedules adequately document contractor costs); *United States v. Bell Petroleum Servs., Inc.,* 734 F.Supp. 771, 781 (W.D.Tex.1990), *rev'd in part, vacated in part on other grounds,* 3 F.3d 889 (5th Cir.1993); *United States v. Northernaire Plating Co.,* 685 F.Supp. 1410, 1415 (W.D.Mich.1988), *aff'd sub nom., United States v. R.W. Meyer, Inc.,* 889 F.2d 1497 (6th Cir.1989).

[19] 279. Notably, none of the cases reviewed above required the presence of any particular document or type of document in their analysis of response cost documentation. They merely required that the documentation be "adequate" or "sufficient" to support the cost claim. The plaintiff in a CERCLA cost recovery action has a range of options for proving up the amount of costs it has incurred. The nature of the documentation presented to support the cost claim will vary depending on the amount of response costs at issue, the type of documentation the plaintiff's accounting system maintains, and the extent and complexity of that documentation. Regardless of the option taken, the burden is on the CERCLA defendant to demonstrate that such documentation is inadequate once the *prima facie* case for the costs has been established. Defendants here have not done so.

280. Similarly, there is no specific standard regarding the amount of detail that must be included in cost documentation. Courts have rejected arguments that the lack of descriptive information on a time sheet or travel voucher regarding the underlying task the employee performed invalidates the documentation. *See Neville,* 213 F.Supp.2d at 1138–40; *Bell Petroleum,* 734 F.Supp. at 781 ("failure to provide descriptive documentation does not make the Government's accounting inaccurate[;] even if it did, disallowance of costs for that reason is too harsh a sanction for the omission, if any, involved").

(3) The United States' Evidence Satisfies the Preponderance of the Evidence Standard and Defendants Have Shown No Inconsistency With the NCP Cost Documentation Provision

281. At trial, the United States presented ATSDR's cost recovery package, which documents the costs ATSDR incurred conducting health-related activities in Libby. The documentation includes cost summaries, time sheets, contractor invoices, travel vouchers, progress reports and voluminous other information. *See generally* Exhibit 1145.

282. In addition, the United States elicited testimony from two senior ATSDR employees, the Deputy Director of the Division of Health Studies, who acted as project officer and field coordinator at the Libby Site, and the Cost Recovery Team Leader, who was responsible for preparing ATSDR's cost recovery package, to explain ATSDR's Libby activities, the agency's institutional procedures for approving and paying costs, and the preparation of the cost recovery package for the Libby Asbestos Site. The Court found these witnesses to be very credible.

283. The documentary and testimonial evidence presented was sufficient to prove by a preponderance of evidence that the United States adequately documented its costs incurred in the response action at the Libby Asbestos Site. *See, e.g., Chapman,* 146 F.3d at 1171; *Findett,* 220 F.3d at 849; *Hardage,* 982 F.2d at 1442–43.

d. Defendants' Interpretation of CERCLA's Documentation Provision Has Not Been Accepted by the Courts

284. Defendants contend, through their expert cost accountant Dale Jensen, that the NCP's cost documentation provision incorporates commonly accepted accounting standards and procedures applicable to documenting costs. Tr. at 442:21 to 444:3. According to Mr. Jensen, the government must compile and maintain a list of documents for its expenditures, including: 1) invoice summaries; 2) site-specific invoices which indicate costs by cost type or by activity; 3) invoice approval forms, or oth-

er documentation of approval, signed by the Site's project manager or other responsible site-specific employee; 4) proof of payment of invoices; contracts, work assignments, or IAGs, authorizing costs to be incurred and describing the work to be performed; 5) monthly progress reports containing descriptions of tasks performed, types and amounts of costs incurred, and other summary information to show that costs were incurred in connection with the Site; 6) audit reports of costs incurred under contracts and IAGs; and, 7) all of the above items for significant subcontractor costs. Tr. at 520:21 to 523:4.

285. There is no suggestion in CERCLA or the NCP that "commonly accepted accounting standards" apply to the documentation of CERCLA costs as a precondition to cost recovery. Courts have consistently rejected arguments that general accounting standards are germane assessing the adequacy of cost documentation under the NCP.

286. In *Findett*, for example, the Eighth Circuit reviewed *de novo* the district court's ruling that the United States was entitled to summary judgment on its response costs in the amount of $3.2 million dollars. In *Findett*, Mr. Jensen contended that the government's CERCLA cost documentation was not sufficient to meet NCP requirements. The Eighth Circuit affirmed the lower court's rejection of Mr. Jensen's argument, stating:

> The EPA submitted thoroughly detailed cost summaries, supporting data, and other competent evidence to support its claim for recovery of response costs. Findett's expert Dale Jensen in his report suggested that additional documentation the EPA had not submitted was necessary to substantiate the EPA's response costs. We disagree. Either the missing documentation noted in Jensen's report was in fact provided by the EPA to Findett, or the detail sought (for example, progress reports from contractors, audit reports of contracts) was only peripherally related to whether the EPA actually incurred response costs.... *In sum, Jensen's opinions regarding insufficient documentation do not create any genuine issue of material fact as to the costs the government seeks to recover from Findett.*

220 F.3d at 849 (emphasis added). Similarly, in *Hardage* the Tenth Circuit rejected Mr. Jensen's cost documentation argument, stating that

> [t]he expert witness affidavits at issue amount to no more than a denial that the government's documentation establishes a prima facie case that it is entitled to recover $5,441,201.25 in response costs ... [and therefore] fail to establish a genuine issue for trial.

Hardage, 982 F.2d at 1444.

287. The District Court for the Eastern District of California also recently addressed Mr. Jensen's documentation arguments. The court, in reviewing $7,809,683.46 in response costs the United States had incurred at a CERCLA cleanup, was direct and harsh with regard to the value of Mr. Jensen's interpretation of the NCP's documentation requirements:

> The Railroads made a wholesale attack on EPA's cost and allocation methodology, ignoring well-established legal precedent that has validated EPA CERCLA cost documentation procedures and practices. The Railroads' cost recovery expert witness was neither credible nor persuasive. He attempted to apply general cost accounting principles in a manner that was not helpful and resulted in unnecessary expenditure of time.

United States v. Atchison, Topeka & Santa Fe Ry. Co., Consolidated Arvin Cases: No. CV–F–92–5068 (OWW), No. CV–F–96–6226 (OWW), No. CV–F–96–6228 (OWW) (E.D.Cal. May 24, 2002) at 80. In

Atchison, as in the case at hand, Mr. Jensen advocated the use of general theories of cost accounting when assessing the adequacy of CERCLA cost documentation. The court rejected all of these arguments and ruled that the United States was entitled to summary judgment on its response costs. The court stated:

> The Railroads' accounting attack was premised on general theories of cost accounting, not environmental accounting as described in case law. *The attacks ignored well established decisional precedent that validates EPA's CERCLA cost accounting procedures and protocols.* The Railroads' accountant also ignored or refused to acknowledge the EPA's SCORES and CERCLA Superfund site accounting and cost documentation methods. The entirety of Railroads' claims on EPA's accounting methodology are rejected.

Id. at 152–53 (emphasis added).

288. Finally, Mr. Jensen's proposed documentation standard rejects any role for sworn testimony from government officials regarding work performed at a site, the time it took to accomplish this work, and contractor oversight, and related topics. *See* Tr. at 441:6–17. While no court has expressly addressed this aspect of his opinion, it is out of step with CERCLA case law. As noted above, several courts have considered and relied upon sworn statements by cleanup personnel in assessing the adequacy of cost documentation. *See, e.g., Chapman,* 146 F.3d at 1171; *Hardage,* 982 F.2d at 1442–43; *Findett,* 75 F.Supp.2d at 991.

289. The Court views Mr. Jensen's testimony in this case similarly to how the courts noted above viewed his earlier testimony: it was not credible, nor was it persuasive.

(1) Defendants Do Not Contend That the United States Calculated ATSDR Costs Incorrectly

290. Defendants rely upon their contention that the ATSDR costs are insufficiently documented; they did not present evidence of any flaws in the calculation of ATSDR costs the United States seeks. To the extent Defendants allege errors in accounting, the errors were corrected before trial and do not affect the weight or credibility of the evidence presented to support the United States' calculation of its direct costs.

(2) Defendants' Remaining Arguments Regarding the Accuracy of ATSDR's Costs Are Unavailing

291. Defendants' suggestion that ATSDR costs may have been double counted and that the agency may have been overcharged by NORC are also unpersuasive.

292. Defendants attempt to draw an inference between a "double count" of some ATSDR costs in an early version of EPA's cost summary and the accuracy of the government's ATSDR cost claim. The "double count" to which Defendants referred was corrected by the government before trial, without prompting from Defendants, and occurred in EPA's, not ATSDR's, cost summary.

293. Defendants introduced an e-mail during the cross examination of Betty Jones, ATSDR's cost recovery team leader. The e-mail suggested that NORC had charged ATSDR excessive and/or fraudulent costs for work on other sites. In rebuttal, Sharon Campolucci, ATSDR's project officer and field coordinator for the Libby Site, testified that she had no reason to believe that NORC had ever overcharged or fraudulently billed ATSDR, nor that it had overcharged or fraudulently

billed ATSDR in connection with its work in Libby. Tr. at 596:19 to 598:6.

294. Defendants have not presented persuasive evidence that undermines the accuracy of the government's accounting of its costs. Because they are both legally recoverable and adequately documented, the United States is entitled to recover the full $11,338,191.62 is costs ATSDR incurred through December 31, 2001.

3. The Volpe Center/Aeolus, Inc. Costs Are Recoverable

[20] 295. Defendants have also failed to show that the United States has not adequately documented $266,538.10 in Volpe Center costs relating to a contract between the Volpe Center and Aeolus.

296. Defendants make much of the fact that Aeolus' Progress Report No. 2, which covered the period from February 6 to February 19, 2001, was dated June 28, 2002. However, Defendants do not contend that the information contained in the progress report is incorrect. In fact, Mr. John McGuiggin, the Volpe Center's project manager for the Libby project, testified that the progress report accurately reflected the work that occurred in the time period, regardless of the date it was prepared. Tr. at 330:13–19, 336:23, 337:16–18, 338:6–13. There was no testimony to the contrary.

297. Defendants' argument that Aeolus costs cannot be recovered because EPA has not to date used the quantitative risk assessment methodology that Aeolus developed as part of its contract with the Volpe Center is not convincing. EPA's decision to develop this methodology was based on its site-specific determination that the existing methodologies may not be sufficient to protect the Libby community. There was no testimony to the contrary. Further, EPA may use Aeolus' quantitative risk assessment methodology at the Libby Asbestos Site in the future. Finally, the fact that the quantitative risk assessment methodology may prove useful at other asbestos sites does not make it unrecoverable in this case. EPA's inclusion of Aeolus costs as a site-specific cost attributable to its Libby Asbestos Site cleanup is not unreasonable.

298. As Defendants have failed to carry their burden of demonstrating that all or some of the Volpe Center/Aeolus, Inc. costs were inadequately documented, the United States is entitled to recover $266,538.10, or the full amount of the disputed costs through December 31, 2001.

4. EPA's Indirect Costs Are Recoverable

[21] 299. The costs of administering cleanup programs and associated enforcement efforts, otherwise known as indirect costs, are real costs that are "part and parcel of all costs of" particular response actions, though they may not be directly charged to those sites. *See R.W. Meyer,* 889 F.2d at 1503–05. Indirect costs, like direct costs, are recoverable under CERCLA. *See* 42 U.S.C. § 9607(a) ("all" response costs recoverable); *R.W. Meyer,* 889 F.2d at 1503–05; *United States v. American Cyanamid Co.,* 786 F.Supp. 152, 159 (D.R.I.1992); *United States v. Hardage,* 750 F.Supp. 1460, 1499–504 (W.D.Okla.1990), *aff'd,* 982 F.2d 1436 (10th Cir.1992). The United States may thus recover from Defendants EPA's indirect costs that are attributable to the Libby Asbestos Site.

300. Defendants contend that the United States is not entitled to recover the vast majority of EPA's indirect costs related to the Libby Asbestos Site because EPA's revised methodology for calculating indirect costs does not meet generally accepted accounting principles. This argument is without merit.

301. The United States has presented detailed testimony explaining EPA's revised indirect cost methodology and the methodology's compliance with Standard No. 4. The United States also has presented testimony and documentation regarding the application of the revised indirect cost methodology to determine the amount of indirect costs attributable to EPA's Libby Asbestos Site cleanup, or $11,322,225.66.

302. This evidence establishes a *prima facie* case that the United States is entitled to these response costs. *See Hardage,* 982 F.2d at 1443. The burden then shifts to Defendants to rebut the costs. *See id.* Defendants have not met their burden.

303. Accordingly, the full amount of indirect costs the United States seeks in this case are attributable to the Libby Asbestos Site.

a. Provisional Indirect Rate for Fiscal Years 2000 and 2001 is 35.53%

304. Under EPA's revised indirect methodology, the total indirect costs attributable to a specific Superfund site may be determined by multiplying the indirect rate by the total direct costs for the specific site.

305. Because at the time of trial EPA had not finalized the actual indirect rates for fiscal years 2000 and 2001, the provisional rate for Fiscal Years 2000 and 2001 was the actual Fiscal Year 1999 indirect rate, or 35.53%.

306. EPA issued actual indirect rates for both years shortly after trial. The final indirect rate for Fiscal Year 2000 is 38.84% and the final indirect rate for Fiscal Year 2001 is 34.28%. Defendants contest the application of rates that were finalized post-trial, and the United States does not contend that they should be applied here. Accordingly, the provisional indirect rates for Fiscal Years 2000 and 2001, rather than the final indirect rates for those years, will be applied in this case.

b. EPA's Use of a Provisional Indirect Rate Is Not Inappropriate

[22] 307. Defendants object to EPA's use of a provisional indirect rate. The actual indirect cost rate cannot be determined for any given year until all costs for that year have been incurred and the actual rate is calculated. EPA uses a provisional rate during the interim. Provisional indirect rates are commonly used in government and the private sector to capture indirect costs before an actual indirect rate can be calculated. There was no testimony to the contrary. In the absence of an actual indirect rate, indirect costs calculated based on the provisional rate are recoverable. *See American Cyanamid,* 786 F.Supp. at 159 (awarding indirect costs based on provisional indirect rate but providing for reimbursement if final indirect rate lowers indirect cost amount).

c. EPA's Indirect Methodology Complies With Standard 4

308. The Statement of Federal Financial Accounting Standards No. 4 ("Standard No. 4") sets forth cost accounting principles for federal agencies in developing costing methodologies, including EPA's methodology for calculating indirect costs.

309. Standard No. 4 is the accounting standard applicable to EPA's cost accounting.

310. Standard No. 4 provides that its principles guiding federal agencies are "broad enough to allow maximum flexibility for agency managers to develop costing methods that are best suited to their operational environment." *See* Exhibit 1058, at 06358.

311. In 2000, EPA revised its methodology for determining indirect costs to be charged at Superfund sites. EPA's re-

vised indirect methodology complies with the five requirements of Standard No. 4 because it has 1) reported the costs of its activities (outputs) on a regular basis; 2) identified organizations that produce major products or services; 3) identified the full costs of producing those products or services; 4) identified inter-entity costs, or costs from other federal organizations that provide products or services to the EPA; and 5) provided a means of identifying all of the agency's costs so that they can be assigned to outputs.

312. Therefore, EPA's revised methodology is an appropriate accounting measure of EPA's indirect costs charged to Superfund sites, including the Libby Asbestos Site.

d. Similar Indirect Rates Have Been Approved in Other Cases

313. Defendants insinuate that EPA's indirect cost rate is simply too high to be acceptable. EPA's indirect rates are comparable to other indirect rates that courts have approved. In other contexts, courts have ruled that indirect costs equaling one-third of total direct costs are appropriate. *Oliver–Finnie Co. v. United States,* 150 Ct.Cl. 189, 279 F.2d 498, 506–07 (1960) (indirect rate of 35.71% "fair and reasonable"); *D. Federico Co. v. New Bedford Redevelopment Auth.,* 723 F.2d 122, 132 (1st Cir.1983) (court includes a "40% mark up for indirect costs"). 303.

e. Defendants' Challenges to EPA's Revised Methodology Are Unavailing

314. Defendants make a variety of challenges to EPA's revised methodology under Standard No. 4 and other generally accepted accounting principles. Specifically, Defendants challenge whether 1) different agencies can have different methodologies for calculating indirect costs; 2) it is appropriate for EPA to include indirect costs of other agencies and contractors in its allocation base; 3) EPA's outputs are properly defined; 4) EPA's indirect cost pool is allocated based on benefits received; 5) EPA measures the full costs of its outputs; and, 6) EPA's indirect cost pool is homogeneous.

315. The language of Standard No. 4 is broad to allow maximum flexibility for federal agencies in developing costing methodologies that best suit their agencies. As a result, different agencies can permissibly use different methodologies for establishing their indirect rates. The fact that EPA uses a different methodology than ATSDR to calculate its indirect costs is irrelevant.

316. It is appropriate for EPA to include in its allocation base the indirect costs of those who have performed services for the EPA, such as other agencies and contractors, because all of these costs are considered necessary to cleaning up contaminated sites, and they are included in the total direct cost of the activity at the site.

317. EPA's outputs under the Superfund program are properly defined as the cleanup of contaminated sites because this definition represents the whole of EPA's efforts under the Superfund program.

318. EPA's indirect cost pool is allocated based on a cause-and-effect relationship because allocating EPA's indirect cost pool over a base of total site-specific expenditures, or total direct costs, best represents the total activity of the Superfund program. The labor-hours approach that Defendants advocate does not represent the total activity of the Superfund program.

319. EPA's revised methodology measures the full cost of the Superfund program's outputs because the agency identifies its internal full cost of cleaning up contaminated sites. It would be neither appropriate nor practical for EPA to in-

clude third party costs in its allocation base.

320. EPA's indirect cost pool is homogeneous because the elements that make up EPA's indirect cost pool have a similar relationship to outputs under the revised methodology.

321. Merely alleging that the revised indirect cost pool is substantially larger than under the previous methodology is not sufficient to challenge the United States' documentation of these costs. The United States has explained in detail the methodology for calculating EPA's indirect costs at Superfund sites, including how it has determined its indirect cost pool and allocation base under the revised methodology.

f. Defendants' Cost Expert Does Not Know What Methodology EPA Should Use

322. Defendants' expert Dale Jensen stated at trial that he does not know what methodology the EPA should use to recover its indirect costs.

323. Defendants' expert has offered no viable alternative for calculating indirect costs in a way that meets the requirements of Standard No. 4; instead, he advocates use of a prior methodology that was criticized repeatedly by the GAO, the EPA Office of Inspector General, the OMB, and Congress for failing to identify the full cost of Superfund site cleanups and, therefore, failing to allow for potential recovery of all indirect costs. Mr. Jensen's belated endorsement of EPA's previous indirect cost methodology is unpersuasive.

g. Indirect Costs of $11,322,225.66 Are Recoverable

324. CERCLA authorizes the EPA to recover "all costs of removal or remedial action incurred by the United States Government or a State ... not inconsistent with the national contingency plan." 42 U.S.C. § 9607(a)(4)(A). Recoverable costs include indirect costs. The United States has demonstrated that the revised indirect rate methodology fairly allocates the indirect costs associated with EPA's Superfund program to specific sites and that it complies with Standard No. 4, the relevant accounting standard. Accordingly, EPA may recover its indirect costs associated with the Libby Asbestos Site, applying the provisional indirect rate of 35.53% for fiscal years 2000 and 2001.

325. Applying the provisional indirect cost rate of 35.53% to EPA's total site costs of $31,866,663.83, EPA is entitled to recover $11,322,225.66 for indirect costs incurred at the Libby Asbestos Site through December 31, 2001. Defendants have already conceded $1,372,000 in indirect costs. The United States also is entitled to recover the remainder—$9,950,225.66.

III. JUDGMENT

326. Pursuant to 42 U.S.C. § 9607(a), Grace–Conn. is liable for the United States' response costs and costs of health effects studies at the Libby Asbestos Site through December 31, 2001. These costs total $54,527,081.11, including undisputed costs of $32,972,125.73; ATSDR costs of $11,338,191.62; Volpe Center/Aeolus, Inc. costs of $266,538.10; and EPA indirect costs of $11,322,225.66 ($9,950,225.66 disputed indirect costs/$1,372,000 undisputed indirect costs). Judgment is therefore entered jointly and severally against Defendant Grace–Conn. and in favor of the United States in the amount of $54,527,081.11.

327. Under 42 U.S.C. § 9607(a), KDC is liable for the United States' response costs at the Kootenai Flyway and Kootenai Bluffs portions of the Libby Asbestos Site through December 31, 2001. The parties stipulate that $3,860,000 of the Volpe Center costs were for response actions at the

Kootenai Flyway and Kootenai Bluffs. EPA's indirect costs related to this portion of the cleanup are $1,371,458 (35.53% × $3,860,000). Judgment is therefore entered jointly and severally against Defendant KDC and in favor of the United States in the amount of $5,231,458.

328. The United States is entitled to prejudgment interest that has accrued "from the later of (i) the date payment of a specified amount is demanded in writing, or (ii) the date of the expenditure concerned." 42 U.S.C. § 9607(a)(4). EPA sent Grace–Conn. a demand letter on May 23, 2000. The complaint in this action, filed March 30, 2001, constitutes written notification to KDC. The Court will delay ruling on the total amount of interest due under this provision to give the parties an opportunity to agree on the amount of interest due based on the amounts awarded the United States identified above. If the parties cannot agree, and no later than 30 days after this opinion is issued, the parties shall supply the Court with affidavits calculating the amount of interest due under this provision. The affidavits shall separately state the amount of prejudgment interest due on or before April 2, 2001, and that due after April 2, 2001. Agreeing on the amount of interest owed under this agreement will not be taken as an admission that interest is legally owed.

329. The United States is entitled to a declaratory judgment on the liability of Grace–Conn. for future cleanup activities that may be conducted at the properties listed in FOF ¶ 1 and on the liability of KDC for future cleanup activities at the properties listed in FOF ¶ 2. *See* 42 U.S.C. § 9613(g)(2). This declaratory judgment does not extend to other properties in and near Libby that EPA may in the future determine to be contaminated, nor does it extend to issues related to the amount of costs incurred after December 31, 2001 or to the NCP consistency of any future response actions that EPA may undertake in the future. The Court understands that the United States will demand from Defendants, on a periodic basis, costs incurred at the Libby Asbestos Site after December 31, 2001. The Parties are strongly encouraged to resolve among themselves any disputes that may arise regarding Grace–Conn.'s liability for additional contaminated properties, the amount of future costs incurred, and/or the NCP consistency of any future response actions that EPA may select. The Parties should apply the principles contained in this opinion and the Court's prior rulings when attempting to resolve any disputes. To the extent the parties are unable to resolve any such disputes, this Court will exercise continuing jurisdiction over this case and hear such disputes at the request of either party.

The lawyers for all parties in this case are commended for their preparation, their presentations and their professionalism. Good lawyers aid the administration of justice in all cases, but in particular in difficult and complex cases.

The clerk is directed to enter judgment in favor of the United States and against Defendants in accordance with these Findings of Fact and Conclusions of Law.

IT IS SO ORDERED.

WEST KEY NUMBER SYSTEM