

FOR PUBLICATION
UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

UNITED STATES OF AMERICA, <i>Plaintiff-Appellee,</i> v. W.R. GRACE & Co.; KOOTENAI DEVELOPMENT, CORPORATION; W.R. GRACE & Co. CONN., <i>Defendants-Appellants.</i>
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No. 03-35924
D.C. No.
CV-01-00072-DWM
OPINION

Appeal from the United States District Court
for the District of Montana
Donald W. Molloy, District Judge, Presiding

Argued and Submitted
February 7, 2005—Seattle, Washington

Filed December 1, 2005

Before: Betty B. Fletcher, M. Margaret McKeown, and
Carlos T. Bea, Circuit Judges.

Opinion by Judge McKeown;
Concurrence by Judge Bea

COUNSEL

Christopher Landau and John C. O’Quinn, Kirkland & Ellis LLP, Washington, D.C.; Kenneth W. Lund, Linnea Brown and Katheryn Jarvis Coggon, Holme Roberts & Owen LLP, Denver, Colorado, for the defendants-appellants.

John T. Stahr, Environment and Natural Resources Division, U.S. Department of Justice, Washington, D.C.; James Freeman, Environment and Natural Resources Division, U.S. Department of Justice, Denver, Colorado, for the plaintiff-appellee.

David L. Mulliken, Esq., Latham & Watkins, LLP, San Diego, California, for the amicus.

OPINION

McKEOWN, Circuit Judge:

Libby, Montana, sits sixty-five miles south of the Canadian border. The seemingly rustic and picturesque environment of this area masks a troubling history—the community has been plagued with asbestos-related contamination. In 1999, the Environmental Protection Agency (“EPA”) was called in to address disturbing health reports due to asbestos-related contamination. We must decide whether, in responding to this threat, the EPA exceeded the bounds of its authority to conduct cleanup activities under the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), 42 U.S.C. § 9601 et seq. We hold that it did not.

Defendants W.R. Grace & Co.,¹ Kootenai Development

¹Although the case caption has remained consistent, we note that the district court’s order states that the parties stipulated to the dismissal of W.R. Grace & Co., a Delaware corporation that was incorporated in 1998 and is the sole shareholder of W.R. Grace & Co.-Conn. *United States v. W.R. Grace & Co.-Conn.*, 280 F. Supp. 2d 1135, 1139 n.1 (D. Mont. 2002) (“*Grace I*”).

Corporation, and W.R. Grace & Co.-Conn. (collectively, “Grace”) do not dispute that they are financially obligated under CERCLA to assist with the cleanup of asbestos originating from their former mining and processing operations near Libby.² Instead, Grace contests the EPA’s characterization of the cleanup as a removal action rather than a remedial action under CERCLA. If the cleanup is a remedial action, which is often characterized as a permanent cleanup, then Grace argues that the EPA did not fulfill the regulatory requirements for remedial actions. For example, a remedial action requires certain analysis of the costs and effectiveness of the remediation and also requires inclusion on the National Priority List. *See* 40 C.F.R. §§ 300.425(b)(1), 300.430(e)(7). In contrast, the regulatory requirements for removal actions, which provide the EPA with substantial flexibility to tailor prompt and effective responses to immediate threats to human health and the environment, are considerably relaxed.

Grace argues that the EPA circumvented the regulatory safeguards by conducting a remedial action under the guise of a removal, thereby giving the EPA free rein to conduct what Grace styles as “the *quintessential* remedial action” under the less-restrictive requirements applied to removals. Grace presents this as a legal question: Is the EPA’s characterization of its activities in Libby as a removal action correct as a matter of law?

Grace further contends that even if the action is appropriately classified as a removal action, the district court erred in exempting the action from CERCLA’s general 12-month, \$2 million cap for removal actions and in granting the EPA over \$54 million in reimbursement plus a declaratory judgment for

²In February 2005, the United States unsealed a criminal indictment charging Grace and various of its employees with offenses relating to knowingly exposing miners and Libby residents to asbestos. *See* Charges Issued Over Asbestos at a Mine, N.Y. Times, Feb. 8, 2005, at A16. This pending indictment does not affect these proceedings.

future costs. Finally, Grace disputes the accounting methods used to calculate the EPA's indirect costs.

The situation confronting the EPA in Libby is truly extraordinary. This cleanup site is not a remote, abandoned mine. Rather, the population of Libby and nearby communities, which the EPA estimates at about 12,000, faces ongoing, pervasive exposure to asbestos particles being released through documented exposure pathways. We cannot escape the fact that people are sick and dying as a result of this continuing exposure. Confronted with this information, the EPA determined on the basis of its professional judgment, and in accord with its administrative interpretation of the scope of removal actions, that the situation warranted an immediate, aggressive response to abate the public health threat.

Although we diverge from the district court's reasoning in some respects, we reach the same ultimate conclusion: The EPA's cleanup in Libby was a removal action that was exempt from the temporal and monetary cap. In light of the EPA's expertise in this area, we owe considerable deference, albeit not necessarily full *Chevron* deference, to its characterization of the cleanup activities as a removal action. *See Chevron U.S.A., Inc. v. Natural Res. Def. Council*, 467 U.S. 837 (1984). We therefore affirm the judgment of the district court.

BACKGROUND

The outcome of this case is controlled by our interpretation of key provisions of CERCLA, a comprehensive statutory scheme to respond to environmental threats, obtain compensation from those responsible for the polluting activities, and assign liability to responsible parties. *See* Pub. L. No. 96-510, 94 Stat. 2767 (1980). Before applying CERCLA to the case at hand, we begin with a brief review of this statute as well as the background on the hazards afflicting Libby.

I. CERCLA

A key component of CERCLA was the establishment of a trust fund, commonly known as “Superfund,” for use when responding to the release or threat of release of hazardous substances into the environment. *See* CERCLA, Subtitle B—Establishment of Hazardous Substance Response Trust Fund § 221, 94 Stat. at 2801-02; *see also* Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, 100 Stat. 1613 (1986). Today, Superfund expenditures are directed by the provisions of CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan (“National Contingency Plan”), 40 C.F.R. pt. 300.³

CERCLA and the National Contingency Plan divide response actions into two broad categories: removal actions and remedial actions. *See* 42 U.S.C. § 9601(25). Removal actions⁴ are typically described as time-sensitive responses to

³The National Contingency Plan “specifies procedures for preparing and responding to contaminations and was promulgated by the [EPA] pursuant to CERCLA.” *Cooper Indus., Inc. v. Aviall Servs., Inc.*, 543 U.S. ___, 125 S. Ct. 577, 580 n.2 (2004); *see also* 42 U.S.C. § 9605. Last revised in 1994, *see* 59 Fed. Reg. 47,384 (Sept. 15, 1994), the National Contingency Plan has undergone several rounds of revisions since its initial publication.

⁴Although “removal action” is not itself defined in CERCLA, “remove” and “removal” are defined. In light of the central importance of the definition to this case, it is worth citing the rather cumbersome definition in its entirety:

The terms “remove” or “removal” means the cleanup or removal of released hazardous substances from the environment, such actions as may be necessary [sic] taken 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. The term includes, in addition, without being limited to, security fencing or other

public health threats for which the EPA is granted considerable leeway in structuring the cleanup. *See, e.g., Minnesota v. Kalman W. Abrams Metals, Inc.*, 155 F.3d 1019, 1024 (8th Cir. 1998) (describing “removal actions” as “those taken to counter imminent and substantial threats to public health and welfare”). Superfund-financed removal actions generally are required to “be terminated after \$2 million has been obligated for the action or 12 months have elapsed from the date removal activities begin on-site.” 40 C.F.R. § 300.415(b)(5). These limitations are not, however, inviolate. The EPA⁵ may exceed this cap if it determines one of two exemptions applies:

- (i) There is an immediate risk to public health or welfare of the United States or the environment; continued response actions are immediately required to prevent, limit, or mitigate an emergency; and such assistance will not otherwise be provided on a timely basis; or
- (ii) Continued response action is otherwise appropriate and consistent with the remedial action to be taken.

40 C.F.R. § 300.415(b)(5); *see also* 42 U.S.C. § 9604(c)(1).

Remedial actions,⁶ on the other hand, are often described as

measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under section 9604(b) of this title, and any emergency assistance which may be provided under the Disaster Relief and Emergency Assistance Act.

42 U.S.C. § 9601(23).

⁵In Executive Orders 12,580 and 12,777, the President delegated most functions and responsibilities to the EPA that were vested in him by CERCLA. *See* 40 C.F.R. § 300.100.

⁶As with “removal,” the definition of “remedial action” has a maze-like structure:

permanent remedies to threats for which an urgent response is not warranted. *See, e.g., Pub. Serv. Co. of Colo. v. Gates Rubber Co.*, 175 F.3d 1177, 1182 (10th Cir. 1999) (“In broad contrast, a remedial action seeks to effect a permanent remedy to the release of hazardous substances when there is no immediate threat to the public health.”).

The distinction between removal and remedial actions is critical under CERCLA because “[b]oth types of actions have substantial requirements, but the requirements for remedial actions are much more detailed and onerous.” *Morrison*

The terms “remedy” or “remedial action” means those actions consistent with permanent remedy taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment. The term includes, but is not limited to, such actions at the location of the release as storage, confinement, perimeter protection using dikes, trenches, or ditches, clay cover, neutralization, cleanup of released hazardous substances and associated contaminated materials, recycling or reuse, diversion, destruction, segregation of reactive wastes, dredging or excavations, repair or replacement of leaking containers, collection of leachate and runoff, onsite treatment or incineration, provision of alternative water supplies, and any monitoring reasonably required to assure that such actions protect the public health and welfare and the environment. The term includes the costs of permanent relocation of residents and businesses and community facilities where the President determines that, alone or in combination with other measures, such relocation is more cost-effective than and environmentally preferable to the transportation, storage, treatment, destruction, or secure disposition offsite of hazardous substances, or may otherwise be necessary to protect the public health or welfare; the term includes offsite transport and offsite storage, treatment, destruction, or secure disposition of hazardous substances and associated contaminated materials.

Enters. v. McShares, Inc., 302 F.3d 1127, 1136 (10th Cir. 2002). For example, remedial actions are only eligible for Superfund financing when the site is listed on the National Priorities List.⁷ See 40 C.F.R. § 300.425(b)(1). Further, the EPA is required to consider costs when selecting remedial alternatives whereas “CERCLA contains no corresponding mandate for removal actions.” *United States v. Hardage*, 982 F.2d 1436, 1443 (10th Cir. 1992); see also 40 C.F.R. § 300.430 (listing requirements for a selection of remedy including consideration of effectiveness, permanence, and cost). Because CERCLA provides that responsible parties shall be liable for “all costs of removal or remedial action incurred by the United States Government . . . not inconsistent with the national contingency plan,” this distinction is vital to those held liable. 42 U.S.C. § 9607(a)(4).

II. HISTORY OF THE EPA’S CLEANUP ACTIVITIES IN LIBBY

The roots of this case stretch back nearly a century to the beginning of mining operations in the vicinity of Libby. It was not until the late 1990s, however, that the extent of the problem came to light fully, leading to the EPA’s cleanup action.

A. ASBESTOS CONTAMINATION IN LIBBY

From the 1920s until 1990, Grace and its predecessors mined and processed vermiculite—a mineral containing a type of asbestos called tremolite—at a mine approximately seven miles northeast of Libby. See *Grace I* at 1138-41 (describing factual background in an order granting the EPA’s motion for summary judgment). Processed ore was trucked to screening plants and expansion/export plants from which the

⁷The National Priorities List is “the list, compiled by EPA pursuant to CERCLA section 105, of uncontrolled hazardous substance releases in the United States that are priorities for long-term remedial evaluation and response.” 40 C.F.R. § 300.5.

materials were distributed nationwide. Vermiculite was also available for employees to take home for their personal use, and Grace donated vermiculite to the local schools.

Although Grace did not cease mining and processing operations in Libby until 1990, state and federal agencies conducted studies on the health effects of the mining operations as early as the 1940s. These efforts were, however, focused on workplace exposure rather than contamination in the greater Libby community. For example, in the 1940s and 1950s, the Montana State Board of Health issued several industrial hygiene studies to determine whether the mine's operations were detrimental to the employees' health. In 1992, the EPA issued a written determination on the applicability of the National Emissions Standards for Hazardous Air Pollutants to a road on the mine property. However, no CERCLA activities were performed in Libby prior to the EPA's commencement of an investigation in 1999 that led to the current cleanup.

B. THE EPA'S INVOLVEMENT IN LIBBY

After beginning its investigation in November 1999, the EPA issued a Sampling and Quality Assurance Project Plan in December, followed by a more comprehensive revised plan in January 2000. The plan "address[ed] questions and concerns raised by citizens of Libby regarding possible ongoing exposures to asbestos fibers as a result of historical mining, processing and exportation of asbestos-containing vermiculite." The EPA's immediate efforts were directed toward (1) obtaining information on airborne asbestos levels in order to judge whether a time-critical intervention was needed to protect public health, and (2) obtaining data on friable asbestos levels in potentially contaminated materials around Libby. The EPA stated that "[t]he first decision to be made is whether or not time-critical intervention is needed to protect public health."

In his testimony before the Senate's Environment and Public Works Committee in February 2000, the EPA's regional administrator attested that the initial investigation confirmed two things: (1) "a large number of current and historic cases of asbestos related diseases centered around Libby," including "33 incidents of apparently non-occupational exposures"; and (2) a "high likelihood that significant amounts of asbestos contaminated vermiculite still remain in and around Libby." Vermiculite from the mine's waste piles was "commonly used by local residents in their yards and gardens as a soil conditioner." It was also used to create running tracks and baseball fields for nearby schools. The residents were particularly concerned because children regularly played in and around piles of vermiculite. These findings compelled the EPA to undertake more expansive testing. To put it mildly, subsequent testing showed asbestos contamination to be pervasive.

Because asbestos is generally only harmful if inhaled or ingested, the mere presence of asbestos does not necessarily constitute an immediate threat. But the situation in Libby did not present this benign scenario. Instead, the EPA documented "complete human exposure pathways" through which asbestos particles were becoming airborne as a result of normal human activities, such as foot traffic and vacuuming, and natural forces, such as wind—especially during the dry summer months. This migration transformed the latent threat of undisturbed asbestos into a current hazard to anyone breathing the airborne particles. For example, residents described halting baseball games when large dust clouds swept over the field carrying particles from exposed piles of vermiculite. A study of Libby residents conducted in 2000 by the Agency for Toxic Substances and Disease Registry not only found that most participants reported multiple routes of exposure, but also that 18% of those x-rayed had abnormalities in the lining of their lungs—as compared with the expected rate of 0.2% to 2.3% for groups living in the United States who have no known asbestos exposures.

These findings led the EPA to set out the intended removal action in a series of three memoranda issued between May 2000 and May 2002, which progressively broadened the scope of the cleanup. The original action memorandum, dated May 23, 2000 (“First Action Memo”), covered a former vermiculite export plant and screening plant, the former of which was being used as a retail lumber mill and the latter as a combined commercial/residential property.⁸ The First Action Memo authorized a time-critical removal action⁹ to be completed by spring/summer 2001 with a total project ceiling of approximately \$5.8 million for the two sites. The EPA determined that the action met the requirements to exceed the \$2 million, 12-month cap because the asbestos in the environment posed an immediate threat to the local population; a cleanup beyond the cap was required to prevent, limit, or mitigate an emergency because of the size of the cleanup and the short construction season; and assistance from other government agencies was not anticipated on a timely basis.

The EPA then broadened the scope of the cleanup in an action memorandum amendment, dated July 20, 2001 (“Second Action Memo”), which covered “newly identified risks” at six additional locations and requested increased funding for costs associated with Grace’s reported denial of

⁸Grace largely conducted the cleanup of the export plant in response to an EPA order dated May 23, 2000.

⁹The EPA describes the cleanup in Libby as a single removal action both in the action memoranda and its briefs to this court: “EPA authorized *a removal action* to remove asbestos-contaminated materials from hundreds of homes, businesses, yards, gardens, school athletic fields, driveways, and mining plant facilities.” (emphasis added). Likewise, on appeal, Grace argues that the district court erred “by granting the United States summary judgment with respect to the validity of EPA’s characterization of the Libby response action as a removal rather than a remedial action.” Accordingly, we analyze the EPA’s activities in Libby as a single response action rather than a patchwork of discrete smaller actions. *Cf. Colorado v. Sunoco, Inc.*, 337 F.3d 1233, 1241 (10th Cir. 2003) (concluding that there can be but one “removal action” per site).

access to the screening plant. The six sites included two private residences, three local schools, and a public road running past the mine site. Among the EPA's foremost concerns were the high asbestos concentrations in the materials at these sites and the easily crumbled state of the exposed asbestos. For example, the EPA found nuggets of tremolite around the high school track that it described as "readily friable, releasing copious amounts of fibers upon degradation." The EPA measured asbestos concentrations of 2% by polarized light microscopy ("PLM") at a pile of vermiculite at one residence, and concentrations up to 1.5% in material scraped off equipment at the other residence.¹⁰ Samples taken from materials visible outside the elementary school indicated that the area contained asbestos at levels between 3% to 8% by PLM, and testing at the road showed asbestos concentrations up to 5%. As with the First Action Memo, the EPA determined that the situation warranted an exemption from the cap and, consequently, authorized a total site removal ceiling of approximately \$20.1 million with an estimated completion date for most of the work by winter 2001/02.

The EPA expanded the removal action again in an action memorandum amendment, dated May 2, 2002 ("Third Action Memo"), which brought a number of homes and businesses in

¹⁰To put these numbers into perspective, in the First Action Memo, the EPA explained how asbestos concentrations in soil translate into risks to the public health:

Currently EPA has not established, under any of its regulatory programs, an asbestos level in soil below which an exposure does not pose a risk. The 1% cut-off level for regulation under the Toxic Substances Control Act abatement program was established on the basis of analytical capability at the time, and was not established based on the level of risk represented. To the contrary, at Superfund sites in California EPA Region IX found in certain settings that concentrations of asbestos less than 1% posed unacceptable inhalation risks when subject to disturbance by traffic.

Significantly, the asbestos was in a friable state.

Libby within the ambit of the removal action. The EPA again determined that an exemption from the statutory cap was warranted. In addition, although Libby was not added to the National Priorities List until October 2002, *see* 67 Fed. Reg. 65,315 (Oct. 24, 2002), the EPA proposed that the site be added in February 2002. The Third Action Memo also explained that the removal action was consistent with a planned future remedial action.¹¹ The EPA estimated that the proposed work would take two to three construction seasons, and it raised the total project ceiling to approximately \$55.6 million. The EPA continued removal activities consistent with its various Action Memos.¹²

C. COST-RECOVERY ACTION AGAINST GRACE

The EPA filed suit against Grace in March 2001 seeking recovery of all response costs incurred by the government and a declaration that Grace would be liable for future costs. *See* 42 U.S.C. §§ 9607, 9613(g)(2). In December 2002, the district court granted the EPA summary judgment on the liability issue but determined that there were material issues of fact regarding costs associated with certain properties. *Grace I*, 280 F. Supp. 2d at 1148.

After a three-day bench trial, the district court issued an order awarding the EPA the full \$54.53 million in reimbursement requested, including \$11.32 million in indirect costs, and granting a declaratory judgment that Grace would be liable for future cleanup costs. *United States v. W.R. Grace &*

¹¹The EPA proposed that the Libby site be added to the National Priorities List in February 2002 so that a remedial response action could be conducted. In October 2002, the site was officially added to the List. *See* 67 Fed. Reg. 65,315 (Oct. 24, 2002).

¹²According to the EPA's CERCLIS database, the EPA currently is in the study and remedy selection phase and a final remedy has not been selected for the Libby site. *See* <http://cfpub1.epa.gov/supercpad/cursites/csitinfo.cfm?id=0801744> (last visited July 26, 2005).

Co., 280 F. Supp. 2d 1149 (D. Mont. 2003) (“*Grace II*”). This appeal followed.

ANALYSIS

The EPA’s ability to recover the costs of its cleanup in Libby hinges on whether its response is properly characterized as a removal action, as argued by the EPA and found by the district court, or a remedial action, as argued by Grace.¹³ The tangled language of CERCLA hardly lends itself to clear-cut distinctions between the two types of actions. Nonetheless, certain overarching attributes emerge with the time-sensitivity of the threat and the significance of the public health threat as key factors underlying removal actions. In Libby, the EPA determined that there was a serious threat to public health that required a time-sensitive response, and it acted on this information.

We emphasize at the outset that the EPA’s response action in Libby is no mere run-of-the-mill CERCLA cleanup. As the EPA itself recognizes, the Libby cleanup is a unique removal action of a size and cost not previously seen. But the situation in Libby was, and remains today, truly extraordinary.

¹³Under CERCLA’s burden-shifting procedures, once the EPA establishes its prima facie case for response costs, the burden shifts to Grace to prove that the response was inconsistent with the National Contingency Plan. See *United States v. Chapman*, 146 F.3d 1166, 1169 (9th Cir. 1998). Specifically, CERCLA provides that responsible parties shall be liable for “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). Because the National Contingency Plan prescribes heightened requirements for a remedial action, a threshold inquiry is whether the action was a removal or remedial action. The EPA does not dispute that the cleanup did not meet the National Contingency Plan’s procedural requirements for a remedial action.

I. REMOVAL OR REMEDIAL ACTION: STRUCTURE OF THE TWO-STEP INQUIRY AND APPLICATION TO THE CLEANUP IN LIBBY

The district court concluded, based on an arbitrary and capricious standard of review, that “[the EPA’s] decision to conduct a removal action rather than a remedial action is consistent with the [National Contingency Plan] and cannot be second-guessed by this Court.” *Grace I*, 280 F. Supp. 2d at 1143. We take a slightly different tack. CERCLA provides that the selection of response actions shall be upheld “unless arbitrary and capricious or otherwise not in accordance with the law.” 42 U.S.C. § 9613(j)(2). We agree that it was not arbitrary and capricious for the EPA “to approve a time-critical removal action.” *Id.* at 1144. However, the statutory scheme compels us to take the inquiry one step further. *See Martinez-Villareal v. Lewis*, 80 F.3d 1301, 1305 (9th Cir. 1996) (“We may affirm on any ground supported by the record even if it differs from the rationale of the district court.”).

[1] Under CERCLA, once the response action is selected—in this case as a removal based on “an imminent and substantial danger to the public health”—then the EPA is authorized to take necessary actions consistent with the National Contingency Plan. *See* 42 U.S.C. § 9604(a)(1). Regulations implementing the Plan provide that “[i]f the [EPA] determines that a removal action is appropriate, actions shall, as appropriate, begin as soon as possible to abate, prevent, minimize, stabilize, mitigate, or eliminate the threat to public health or welfare of the United States or the environment.” 40 C.F.R. § 300.415(b)(3). Thus, even if the EPA’s *selection* of a removal action was proper, the question remains whether the actions *actually taken* by the EPA to combat the threat are properly categorized as such.

We agree with Grace that this second step of our inquiry is a question of law: Does the EPA’s response action in Libby

fall within the statutory limits of a removal action? Grace's challenge is built on the premise that the EPA termed its cleanup in Libby a removal action as a subterfuge when the response was, in substance, a remedial action.¹⁴ To resolve this question, we must explore the statutory confines of removal actions under CERCLA and, within this legal structure, ask to what extent we should defer to the EPA's interpretation based on the agency's expertise.

A. DECISION TO CONDUCT A REMOVAL ACTION IN LIBBY

The EPA's initial decision to conduct a removal action must be upheld unless Grace can demonstrate on the administrative record that the decision was arbitrary and capricious or otherwise not in accordance with law. 42 U.S.C. § 9613(j)(2). Grace has not met this burden.

[2] The National Contingency Plan requires the EPA to consider a series of factors¹⁵ to determine that it was appropri-

¹⁴Grace attributes the timing and scope of the EPA's cleanup to intense media attention regarding conditions in Libby. We have previously rejected an "ulterior motive" analysis in a challenge to whether CERCLA response costs incurred by a private landowner were necessary: "The issue is not why the landowner decided to undertake the cleanup, but whether it was necessary. To hold otherwise would result in a disincentive for cleanup." *Carson Harbor Vill., Ltd. v. Unocal Corp.*, 270 F.3d 863, 871-72 (9th Cir. 2001) (en banc) (citation omitted). This logic applies with equal force when the EPA is a party. We therefore do not inquire into the EPA's subjective motives behind the cleanup, but rather ask if the objective evidence supports the response.

¹⁵40 C.F.R. § 300.415(b)(2) provides that "[t]he following factors shall be considered in determining the appropriateness of a removal action":

- (i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;
- (ii) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

ate to initiate a removal action. *Cf. Chapman*, 146 F.3d at 1171-73 (holding that the EPA did not act arbitrarily or capriciously in ordering a removal action after considering the § 300.415(b)(2) factors). The EPA did so and its findings are extensively documented.

The First Action Memo discusses five of the eight factors¹⁶ in concluding that the conditions in Libby presented an imminent and substantial threat to human health and the environment that met the regulatory criteria. Chief among the factors was that complete exposure pathways existed through which people were being exposed to asbestos. The First Action Memo details specific threats, including that “there are over 3000 three gallon buckets of unexpanded Libby vermiculite” being used at a mushroom farm at the former screening plant, and that surface soils contained visible vermiculite that could readily migrate.

The magnitude of the current and potential impact on public health resulting from the widespread use of vermiculite by Libby residents led the EPA in its Second Action Memo to

(iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;

(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;

(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

(vi) Threat of fire or explosion;

(vii) The availability of other appropriate federal or state response mechanisms to respond to the release; and

(viii) Other situations or factors that may pose threats to public health or welfare of the United States or the environment.

¹⁶Specifically, the memo invokes the first, third, fourth, fifth, and seventh factors listed in 40 C.F.R. § 300.415(b)(2).

invoke the catch-all eighth factor—“[o]ther situations or factors that may pose threats to public health or welfare of the United States or the environment,” 40 C.F.R. § 300.415(b)(2)(viii):

The sheer magnitude of the medical impact in Libby dictates the need for an expedient and thorough response. Unfortunately, because of the latencies of asbestos related diseases there is no easy way to directly correlate exposure to amphibole asbestos today to the direct development of an asbestos related disease. The only way to determine this for certain is to observe an individual for 10 to 40 years after exposure to see if they become sick. However, waiting for this type of certainty is unconscionable. CERCLA was designed and enacted to prevent illness and death resulting from exposure to hazardous substances, not wait for its occurrence to prove a threat.

[3] Finally, the Third Action Memo cites several factors in support of the EPA’s decision to expand the removal action and asserts that “[t]he significant medical impact of asbestos exposure in Libby dictates the need for an expedient and thorough response.” In light of the EPA’s carefully documented reasoning in the three Action Memos, we agree with the district court that the EPA’s decision to approve a removal action was not arbitrary and capricious. *See* 42 U.S.C. § 9613(j)(2). This threshold decision does not, however, end our inquiry. We must consider how to classify the EPA’s action.

B. CHARACTERIZATION OF THE EPA’S RESPONSE ACTION

The question remains whether the steps actually taken by the EPA to combat the threat are properly characterized as a removal action. Whether the EPA’s cleanup activity was a removal action—or, on the other hand, a remedial action in removal action’s clothing—is a question of statutory interpre-

tation. “Congress provided definitions for ‘removal’ and ‘remedial action,’ and the classification of the activity is determined as a matter of law.” *Geraghty & Miller, Inc. v. Conoco Inc.*, 234 F.3d 917, 925-26 (5th Cir. 2000) (footnotes omitted); *see also Sunoco*, 337 F.3d at 1242 (“Nothing in [42 U.S.C.] § 9613(j)(2) refers to the EPA’s characterization of a particular action [as a removal or remedial action].”). The decision to select a removal or remedial action is therefore distinct from the question whether the action carried out was, in fact, the action selected. It is to this crucial inquiry that we now turn.

The statutory interpretation of “removal” is a legal issue that we review as a matter of law. *See Carson Harbor Vill.*, 270 F.3d at 870. But in addressing the statute, the parties disagree as to the level of deference, if any, that we should grant the EPA’s formulation of the term “removal.” Resolving this question requires that we consider the Supreme Court’s recent refinement of the traditional agency-deference analysis under *Chevron*. *See* 467 U.S. at 842-45; *United States v. Mead Corp.*, 533 U.S. 218, 226-27 (2001) (*Chevron* applies “when it appears that Congress delegated authority to the agency generally to make rules carrying the force of law, and that the agency interpretation claiming deference was promulgated in the exercise of that authority.”).

Following *Mead*, the continuum of agency deference has been fraught with ambiguity. *Compare Barnhart v. Walton*, 535 U.S. 212, 221 (2002) (applying *Chevron* deference even though the EPA reached its interpretation through means less formal than “notice and comment” rulemaking) *with Mead*, 533 U.S. at 226-27 (agency’s tariff classification had “no claim to judicial deference under *Chevron*, there being no indication that Congress intended such a ruling to carry the force of law”). Our decisions understandably have been conflicted as to whether *Chevron* deference only applies upon formal rulemaking and whether lesser deference applies in other situations. *See, e.g., Cal. Dep’t of Soc. Servs. v. Thomp-*

son, 321 F.3d 835, 847-48 (9th Cir. 2003) (discussing how *Mead* and *Walton* have “further obscured the already murky administrative law surrounding *Chevron*”); *Davis v. United States EPA*, 348 F.3d 772, 779 n.5 (9th Cir. 2003) (“The mere fact that the EPA engaged in informal agency adjudication . . . does not vitiate the *Chevron* deference owed to the agency’s interpretation . . .”). As Justice Scalia presciently noted in his dissent in *Mead*, “We will be sorting out the consequences of the *Mead* doctrine, which has today replaced the *Chevron* doctrine, for years to come.” 533 U.S. at 239 (Scalia, J., dissenting).

The Supreme Court’s most recent pronouncement in *National Cable & Telecommunications Ass’n v. Brand X Internet Services*, 125 S.Ct. 2688 (2005), calls into question whether *Mead* in fact “replaced” *Chevron* as Justice Scalia contends. Perhaps because *Brand X* involved formal rulemaking, *see id.* at 2699, the Court did not clarify whether there is a “deference distinction” between *Chevron* and *Mead*. Nonetheless, in *Brand X* the majority’s language explaining *Chevron* is quite broad and does not come with a proviso that the *Chevron* deference is limited to agency interpretations expressed through formal rulemaking. *See id.* (“In *Chevron*, this Court held that ambiguities in statutes within an agency’s jurisdiction to administer are delegations of authority to the agency to fill the statutory gap in reasonable fashion.”); *id.* at 2700 (“*Chevron*’s premise is that it is for agencies, not courts, to fill statutory gaps.”).

The interplay between *Chevron* and *Mead* is highlighted in Justice Breyer’s concurrence, in which he writes that “the existence of a formal rulemaking proceeding is neither a necessary nor a sufficient condition for according *Chevron* deference to an agency’s interpretation of a statute.” *Id.* at 2712 (Breyer, J., concurring). This explanation stands in contrast to Justice Scalia’s dissents in *Brand X* and *Mead*. *See id.* at 2713-21; *Mead*, 533 U.S. at 239-61. Echoing his dissent in *Mead*, Justice Scalia proffers in his *Brand X* dissent that

“*Mead* drastically limited the categories of agency action that would qualify for deference under *Chevron*.” 125 S.Ct. at 2718 (Scalia, J., dissenting). Rather than clarifying what these categories are, Justice Scalia advances that, in *Brand X*, the Court “continues the administrative-law improvisation project it began four years ago in [*Mead*].” *Id.*

Because the discussion in *Brand X* leaves some doubt as to the degree of formality of the underlying agency interpretation that is required for *Chevron* deference, we look to the post-*Mead* Supreme Court decision that most closely resembles the circumstances we face here. The Court explained last year in *Alaska Department of Environmental Conservation v. EPA*, 540 U.S. 461, 487-88 (2004), that the EPA’s interpretation of a statute in internal guidance memoranda warrants respect but does not qualify for *Chevron* deference. Although the Court cited *Mead* in rejecting *Chevron* deference, it accorded “respect” to the “EPA’s reading of the relevant statutory provisions.” *Id.* at 488. Accordingly, at a minimum, we impose a modified deference standard affording respect to the EPA’s informal interpretations here. But either under modified deference or full *Chevron* deference, the result would be the same: The EPA’s cleanup activities in Libby are properly categorized as a removal action.

[4] Despite the EPA’s insistence that arbitrary and capricious review applies to all aspects of our inquiry, the statute does not support this reading. CERCLA requires that we uphold the EPA’s “decision in selecting the response action” unless arbitrary and capricious or otherwise not in accordance with the law. 42 U.S.C. § 9613(j)(2). Here we address not the EPA’s selection of its remedy, but rather whether the actions taken fall within the statutory definition of a removal. Thus, we consider whether the statutory construction that the EPA advances in this litigation is correct as a matter of law. The degree of deference granted to the EPA’s interpretation of a statute is considered in light of *Chevron* and its progeny. See *Alaska Dep’t of Env’tl. Conservation*, 540 U.S. at 487-88. In

contrast, an agency's actions exercised under its statutory authority are generally subject to arbitrary and capricious review. *See id.* at 496-97 (applying arbitrary and capricious review to the EPA's taken actions under the Clean Air Act); *see also* 5 U.S.C. § 706(2) (applying arbitrary and capricious review to agency conclusions and findings).

With the Supreme Court's recent agency-deference cases as a backdrop, we begin with *Chevron's* first step and ask "whether Congress has directly spoken to the precise question at issue," *Chevron*, 467 U.S. at 842, i.e., whether a response action such as the one carried out in Libby is a removal or remedial action.¹⁷ If Congress has "unambiguously expressed [its] intent," then our inquiry ends there, for that intent must be given effect as law. *Id.* at 842-43. If, however, the statute is ambiguous, then we look to the EPA's interpretation of the statute. Even if full-blown *Chevron* deference is not due because of the informal nature of the interpretation, we will still accord a modified level of respect because "*Chevron* did nothing to eliminate *Skidmore's*[¹⁸] holding that an agency's

¹⁷Although we have touched on the interplay between removal and remedial actions under CERCLA in prior decisions, the specific contexts in which those cases arose render them of limited use to our decision here. *See California v. Neville Chem. Co.*, 358 F.3d 661, 667, 670 (9th Cir. 2004) (concluding that for the purposes of "the onset of the limitations period for recovery of remedial action costs under CERCLA," no action can be "remedial" until adoption of a final remedial action plan); *Hanford Downwinders Coalition, Inc. v. Dowdle*, 71 F.3d 1469, 1475, 1477 n.10 (9th Cir. 1995) (holding that a government health assessment was a "removal or remedial action entitled to the protection of [42 U.S.C.] § 9613(h)" without the need to clarify the distinction between the two types of actions).

¹⁸The Court explained in *Skidmore v. Swift & Co.* that "[t]he weight [accorded to an administrative] judgment in a particular case will depend upon the thoroughness evident in its consideration, the validity of its reasoning, its consistency with earlier and later pronouncements, and all those factors which give it power to persuade, if lacking power to control." 323 U.S. 134, 140 (1944); *see also Sunoco*, 337 F.3d at 1243 (concluding that the EPA's characterization of a response action deserves *Skidmore* deference).

interpretation may merit some deference whatever its form.” *Mead*, 533 U.S. at 234; *see also Wilderness Soc’y v. United States Fish & Wildlife Serv.*, 353 F.3d 1051, 1059-62 (9th Cir. 2003) (en banc), *amended by* 360 F.3d 1374 (2004) (applying this analytical framework to review of an agency’s interpretation). Put simply, even if EPA manuals, policy statements, and other pronouncements “are beyond the *Chevron* pale,” *Mead*, 533 U.S. at 234, they are not beyond the reach of our deference.

As elaborated below, the statutory definition of “removal” is vague and, consequently, the EPA’s construction of this statutory term warrants our deference. In light of this deference and the well-documented record of the scope of cleanup activity, we hold that the EPA’s action in Libby is properly characterized as a removal action. In so holding, we recognize that the emphasis on time-sensitivity both in the EPA’s selection of a removal action and in our decision whether the action carried out actually was a removal action threatens to collapse the two issues into a single “immediacy” inquiry. Our review of the EPA’s decision to conduct a removal action is limited to whether the EPA considered the eight factors under 40 C.F.R. § 300.415(b)(2). In contrast, although immediacy is a paramount consideration when evaluating whether the action indeed was a removal, this second phase of our inquiry is not bound by those eight factors. For example, we also consider, among other things, the interplay between a removal and remedial action conducted at a single site and whether the action comports with the examples in 40 C.F.R. § 300.415(e).

Grace contests the denomination of the action as a removal by cherry-picking discrete cleanup activities which, standing alone, might fall within the ambit of a remedial action. We refrain from slicing and dicing the EPA’s single, cohesive removal action into a myriad of fractured parts. Such atomization would undermine the EPA’s scientific and administrative expertise by requiring us to second-guess whether, for exam-

ple, the excavation of soil at the local elementary school was a remedial action because 1000 cubic yards of soil was removed when perhaps removal of less soil or less drastic measures could have been employed to counteract the immediate threat. Instead, we take a more comprehensive view of the administrative record in concluding that the EPA's response was a removal action.

1. STATUTORY INTERPRETATION: REMOVAL AND REMEDIAL ACTIONS

[5] The first step under *Chevron* requires a straightforward exercise in statutory interpretation: "If a court, employing traditional tools of statutory interpretation, ascertains that Congress had an intention on the precise question at issue, that intention is the law and must be given effect." *Chevron*, 467 U.S. at 843 n.9.

We begin with the statutory definitions because "[w]hen a statute includes an explicit definition, we must follow that definition, even if it varies from that term's ordinary meaning." *Stenberg v. Carhart*, 530 U.S. 914, 942 (2000). It has become de rigueur to criticize CERCLA as a hastily passed statute that is far from a paragon of legislative clarity. *See, e.g., Exxon Corp. v. Hunt*, 475 U.S. 355, 363 (1986) (commenting that a provision in CERCLA "is not a model of legislative draftsmanship"); *Carson Harbor Vill.*, 270 F.3d at 883 ("Clearly, neither a logician nor a grammarian will find comfort in the world of CERCLA."). The definitions of removal and remedial action exemplify this muddled language. *See* 42 U.S.C. § 9601(23) (defining "removal"); *id.* § 9601(24) (defining "remedial action"); *id.* § 9601(25) (defining "response"); *see also supra* notes 4, 6 (quoting definitions).

The definition of "removal" is written in sweeping terms. It begins with the general statement that "removal" means "the cleanup or removal of released hazardous substances from the environment." 42 U.S.C. § 9601(23). The definition

goes on to describe three categories of events that trigger removal: (1) “such actions as may be necessary [sic] taken in the event of the threat of release of hazardous substances into the environment”; (2) “such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances”; and a third catch-all category, (3) “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.” *Id.*

Finally, the definition lists a number of specific activities that fall within the definition of “removal”—“alternative water supplies,” “temporary evacuation and housing,” and “emergency assistance.” Although at first glance this half of the definition appears to provide concrete guidance by listing identifiable activities such as “security fencing,” this part too is left vague by the opening caveat that the term “removal” “includes, in addition, without being limited to, security fencing” *Id.* Consequently, “these examples serve only as a guide to what activities may appropriately be classified as ‘removal action.’ ” *Hanford Downwinders Coalition*, 71 F.3d at 1478 n.13.

The definition of “remedial action” is similarly broad, but can be distinguished from “removal” because it refers to “permanent” remedies and its list of specific actions is, in large part, distinct from the list included under “removal.” (For example, “removal” is focused on temporary and emergency activities.) To begin, the definition states that a “remedial action” is an action “consistent with permanent remedy taken instead of or in addition to removal actions.” 42 U.S.C. § 9601(24). Although the section begins with this clear language, it threatens to collapse into the definition of “removal” because it includes those actions “taken instead of or in addition to removal actions” and is triggered “in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous

substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment.” *Id.* Thus, the triggering factors begin to sound virtually similar to the triggering factors for a “removal” action. In fact, two of the triggering factors for “removal” are almost identical to the factors for “remedy”:

Removal — 42 U.S.C. § 9601(23)	Remedy — 42 U.S.C. § 9601(24)
“such actions as may be necessary [sic] taken in the event of the threat of release of hazardous substances into the environment”	“those actions consistent with permanent remedy taken in the event of a release or threatened release of hazardous substances into the environment”
“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”	“those actions consistent with permanent remedy taken to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment”

The definition concludes with three lists of specific examples classified as a remedy, such as “segregation of reactive wastes.” The first list details various locations of the release. As with the term “removal,” the definition for the first list diminishes the examples’ guidance with the qualifying language that the term “includes, but is not limited to,” the listed examples. *Id.* The second list spells out when permanent relocation of residents, businesses, and community facilities is

appropriate. Finally, the third list is a list of actions included within “remedy,” ranging from offsite storage to disposition of hazardous substances.

Adding to the confusion is the overlap between the two definitions. *See Neville Chem. Co.*, 358 F.3d at 667 (noting listing of “provision of alternative water supplies” under both “remedial action” and “removal”); *Geraghty & Miller*, 234 F.3d at 927 (noting overlap). Attempting to untie the Gordian knot of these definitions solely based on their plain meanings is thus unavailing.¹⁹

In interpreting “removal” and “remedial,” we next follow the Supreme Court’s guidance in taking a comprehensive, holistic view of CERCLA because it is a “fundamental canon of statutory construction that the words of a statute must be read in their context and with a view to their place in the overall statutory scheme.” *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 133 (2000) (quoting *Davis v. Mich. Dep’t of Treasury*, 489 U.S. 803, 809 (1989)).

[6] CERCLA makes clear that the EPA has the tools of both removal and remedial actions at its fingertips when there is a release or threatened release of a hazardous substance. Specifically, the EPA is authorized “to remove or arrange for the removal of, and provide for remedial action relating to

¹⁹Other courts have similarly been unable to extract answers from the statute’s plain meaning:

[T]hose courts which have attempted to unravel CERCLA’s definitions have found no solace in either the “plain meaning” of the statute or the reams of legislative history. Instead, in an attempt to glean legislative intent, courts seem to resort to a sort of “Purkinje phenomenon,” hoping that if they stare at CERCLA long enough, it will burn a coherent afterimage on the brain.

CP Holdings, Inc. v. Goldberg-Zoino & Assocs., Inc., 769 F. Supp. 432, 435 (D.N.H. 1991) (footnote omitted) (referring to “[a]n optical illusion named for Johannes E. Purkinje (1787-1869), whereby the eye retains an afterimage of an object in a different color from the original”).

such hazardous substance, pollutant, or contaminant at any time . . . , or take any other response measure consistent with the national contingency plan which the [EPA] deems necessary to protect the public health or welfare or the environment.” 42 U.S.C. § 9604(a)(1). The statute as a whole, however, does little to clarify how to categorize a given response action except to suggest that remedial actions may be “long term.” *See, e.g., id.* § 9604(a)(2) (indicating that any removal action should contribute to the efficient performance of any “long term” remedial actions without further elaboration).

Nor does the purpose of the statute provide definitive guidance, though it points towards a liberal reading of “removal” in order to effectuate CERCLA’s underlying purpose of “protect[ing] and preserv[ing] public health and the environment by facilitating the expeditious and efficient cleanup of hazardous waste sites.” *Carson Harbor Vill.*, 270 F.3d at 880 (quoting *Pritikin v. Dept of Energy*, 254 F.3d 791, 794-95 (9th Cir. 2001) (internal quotation marks and citation omitted)); *see also, e.g., Sierra Club v. Seaboard Farms, Inc.*, 387 F.3d 1167, 1172 (10th Cir. 2004) (advocating that CERCLA be interpreted liberally so as to accomplish its remedial goals). Specifically, because a removal action can be initiated promptly after notification of a threat, a liberal reading provides the EPA with greater flexibility to use this tool for the protection of the public health.

Last, we turn to CERCLA’s legislative history for guidance. *See BedRoc Ltd. v. United States*, 541 U.S. 176, 187 n.8 (2004) (noting “longstanding precedents that permit resort to legislative history only when necessary to interpret ambiguous statutory text”). *But see Johnson v. United States*, 529 U.S. 694, 723 (2000) (Scalia, J., dissenting) (criticizing majority’s reliance on legislative history because “[o]ur obligation is to go as far in achieving the general congressional purpose as the text of the statute fairly prescribes—and no further”).

[7] Unfortunately, legislative history is particularly unhelpful because of the haphazard passage of CERCLA with many of the more lucid descriptions of the statute falling under the oxymoronic category of post-enactment “history.” *See, e.g.*, 126 Cong. Rec. S16,428 (daily ed. Dec. 12, 1980), *reprinted in* 1 The Environmental Law Institute, *Superfund: A Legislative History* 87 (Helen Cohn Needham & Mark Menefee eds., 1982) (hereinafter “Superfund History”) (post-passage “clarification” by Sen. Stafford that “the purpose of [CERCLA] and the response plan is to protect the public health and welfare in its broadest sense”); *see also* Alfred R. Light, *CERCLA Law and Procedure* 12-18 (1991) (describing the “unusual back-room congressional compromise process” behind CERCLA); 1 *Superfund History, supra*, at xiii (“The emergence of this last-minute compromise hampers the ability of researchers to draw definitive conclusions from the otherwise extensive legislative history of CERCLA.”). Considering that no committee or conference reports address the version of CERCLA that ultimately became law, it is apt to describe the search for legislative history as “somewhat of a snark hunt.” *Carson Harbor Vill.*, 270 F.3d at 885.

Without the benefit of a definitive committee report or other deliberate congressional documents describing the genesis of the final bill, we are hesitant to rely on legislative history for guidance, especially in regard to the nuanced inquiry as to which side an action falls on the removal/remedial line. *See United States v. Adams*, 343 F.3d 1024, 1032 n.8 (9th Cir. 2003) (warning that subsequent legislative history is a “hazardous basis for inferring the intent of an earlier Congress”) (quoting *United States v. McCoy*, 323 F.3d 1114, 1121 (9th Cir. 2003)).

What we can take away from the legislative history is the drafters’ overarching concern that aggressive action be taken to protect the public health. *See, e.g.*, 126 Cong. Rec. S14,714 (daily ed. Nov. 19, 1980), *reprinted in* 1 *Superfund History, supra*, at 90 (statement of Sen. Mitchell) (“The Surgeon Gen-

eral of the United States has stated that toxic wastes may be the most serious threat to public health in our country in the next decade. So it is in this spirit of urgency that I cosponsor this substitute [bill] today.”); S. Rep. No. 96-848, at 2 (1980) (stating in report for unadopted draft of CERCLA that “the potential impact of toxic chemicals on the general public and environment through unsound hazardous disposal sites and other releases of chemicals is tremendous”); *see also* 55 Fed. Reg. 8666, 8725 (Mar. 8, 1990) (statement in comments to 1990 amendments to the National Contingency Plan that “Section 121 of CERCLA makes clear, and the legislative history confirms, that the overarching mandate of the Superfund program is to protect human health and the environment from the current and potential threats posed by uncontrolled hazardous waste sites.”). Such statements encourage us to construe “removal” liberally to effectuate CERCLA’s remedial purpose, but they do not illuminate the removal/remedial distinction. *Cf. Seaboard Farms*, 387 F.3d at 1172 (“[CERCLA] must be interpreted liberally so as to accomplish its remedial goals.”); *Kelley v. E.I. DuPont de Nemours & Co.*, 17 F.3d 836, 843 (6th Cir. 1994) (“We conclude that Congress intended that the term ‘removal action’ be given a broad interpretation.”).

[8] In sum, we are unable to discern Congress’s clear intent through the normal tools of statutory interpretation. The meanings of “removal” and “remedial action” under CERCLA are inescapably vague.

2. DEFERENCE TO THE EPA’S CHARACTERIZATION

Having concluded that Congress did not draw a clear line between removal and remedial actions, we turn to the second step under *Chevron* and ask whether, in view of the deference owed to the EPA, the Libby cleanup was a removal action as a matter of law. As noted earlier, the level of deference we accord to a given agency interpretation is directed by its form.

[9] The administrative posture of CERCLA presents two types of agency interpretations. One is the National Contingency Plan, which carries the force of law.²⁰ The second relates to informal agency interpretations, which at a minimum receive respect and, depending on the interplay of *Mead* and *Brand X*, may even deserve *Chevron* deference. Whichever of these applies, we reach the same result: We hold that the EPA has rationally construed CERCLA and that construction deserves our respect. *Cf. Alaska Dep't of Env'tl. Conservation*, 540 U.S. at 485-88 (EPA “rationally construed” Clean Air Act in internal guidance memoranda, which construction deserved “respect and approbation” but not *Chevron* deference). As interpreted by the EPA, the removal/remedial distinction boils down to whether the exigencies of the situation were such that the EPA did not have time to undertake the procedural steps required for a remedial action, and, in responding to such a time-sensitive threat, the EPA sought to minimize and stabilize imminent harms to human health and the environment. The EPA did so here.

The definitions of “removal” and “remedial action” in the EPA-promulgated National Contingency Plan merely parrot CERCLA’s definitions, aside from a few minor revisions for the National Contingency Plan context. *See, e.g.*, 40 C.F.R. § 300.5 (replacing “EPA” for “the President” in definition of “remedial action” and noting that, for the purpose of the National Contingency Plan, “remedial” and “removal” include enforcement activities related thereto). Because these definitions do nothing to interpret the definitions in CERCLA, they are unhelpful to our inquiry.

²⁰40 C.F.R. § 300.2 explains that the President delegated to the EPA “the responsibility for the amendment of the [National Contingency Plan].” *See also id.* (“The [National Contingency Plan] is applicable to response actions taken pursuant to the authorities under CERCLA”); *Vigil v. Leavitt*, 381 F.3d 826, 834 (9th Cir. 2004) (“Congress has given EPA general rulemaking authority, which, when exercised, requires our deference in accordance with *Chevron*.”) (citation omitted).

That being said, other parts of the National Contingency Plan offer some guidance. For instance, 40 C.F.R. § 300.415(e) sets forth examples of activities that are “as a general rule,” appropriate as part of a removal action, but notes that the list “is not exhaustive and is not intended to prevent the lead agency from taking any other actions deemed necessary under CERCLA.” *See also* 42 U.S.C. § 9601(23) (providing that the scope of removals is not limited to the examples in the statutory definition). The examples include, among others, fences or other site control precautions; capping of contaminated soils to reduce migration; excavation, consolidation, or removal of highly contaminated soils; and removal and treatment of hazardous materials where it will reduce the likelihood of human exposure. 40 C.F.R. § 300.415(e). The bulk of activities carried out in Libby easily fall within the scope of the listed examples. For instance, the EPA removed hazardous soil from the screening plant, restricted access to contaminated roads, installed a temporary cover on a school’s ice skating rink, excavated and backfilled contaminated soil, and removed exposed piles of vermiculite.

[10] Although “immediacy” is not used in the definition of “removal” either in CERCLA or the National Contingency Plan, the examples in 40 C.F.R. § 300.415(e) imply a level of urgency in addressing the threat both by expressly using the word “immediately,” *see id.* § 300.415(e)(9) (providing alternative water supply “where necessary immediately to reduce exposure to contaminated household water”), and by describing looming threats against which prompt action is needed, *see, e.g., id.* § 300.415(e)(4) (capping contaminated soils “where needed to reduce migration of hazardous substances . . . into soil, ground or surface water, or air”). Not surprisingly, the criteria used to determine whether the selection of a removal action is appropriate are similarly infused with this sense of immediacy. *See, e.g., id.* § 300.415(b)(2)(iv) (factors include whether there are hazardous substances in soils “largely at or near the surface, that may migrate”).

The need for immediate action permeates the EPA's activities in Libby. The toxicologist's May 17, 2000, report that was attached to the First Action Memo concludes that "[a]irborne fiber concentrations in the residential area of Libby exceeded the present occupational Permissible Exposure Level (PEL) of 0.1 fiber/cubic centimeter established by OSHA 1994 (MRI, 1982)."²¹ These levels translated into an immediate public health threat because, as documented in the health consultation by the Agency for Toxic Substances and Disease Registry, complete exposure pathways were present around Libby. For example, EPA investigations found deteriorating bags of vermiculite at the former screening plant, as well as vermiculite tailings at the surface of a walking path next to the Libby High School track. And the dilapidated condition of houses was such that "[i]n some Libby homes, vermiculite insulation is literally falling out into the living space from gaps around light fixtures and electrical switches." That these particles were present in people's homes and schools is especially troubling because, in contrast to standards set by OSHA for workers who are exposed to particles during an eight-hour workday, home and school contamination could result in exposure for twenty-four hours per day. In short, the carcinogenic fibers were widespread and, contrary to Grace's assertions, were not contained such that they would not be inhaled. As ominously observed by the EPA, "Of course once airborne, the fibers will migrate whichever way the wind blows."

The sequence of activities in Libby further comports with the EPA's description in the National Contingency Plan of the preferred development of response actions. The National Contingency Plan provides that the agency should orderly transi-

²¹The Permissible Exposure Level is for eight hours, not twenty-four. Although Grace argues that the EPA's toxicologist's report is incorrect, it does not cite to the report of any other experts who concluded otherwise. Nor does Grace cite to any provisions of OSHA that require a different protocol for the taking of samples which the EPA's expert did not follow.

tion from a removal to a remedial action if it “determines that the removal action will not fully address the threat posed by the release.” 40 C.F.R. § 300.415(g). This progression is evidenced by the three Action Memos for Libby, which began by calling for a removal action but later paved the way for a remedial action.²² Indeed, the First Action Memo notes that the proposed removal action “should compliment and contribute to the overall success of any remedial actions in the future.” The Third Action Memo further states, “Continued response actions are appropriate and consistent with the remedial actions to be taken.” Thus, the EPA conducted its removal action in Libby not in lieu of a remedial action, but rather as a prelude to a comprehensive remedial action.

Looking beyond the National Contingency Plan, the EPA’s characterization of response actions in documents that do not have the heft of regulations still carry weight because “[c]ogent ‘administrative interpretations . . . not [the] products of formal rulemaking . . . nevertheless warrant respect.’ ” *Alaska Dep’t of Env’tl. Conservation*, 540 U.S. at 488 (quoting *Wash. State Dep’t of Soc. & Health Servs. v. Guardianship Estate of Keffeler*, 537 U.S. 371, 385 (2003) (alterations in original)); *see also* *FTC v. Garvey*, 383 F.3d 891, 903 (9th Cir. 2004) (where *Chevron* deference does not apply, “[an agency’s] pronouncement’s persuasiveness may nevertheless entitle it to respect”). The need for agency expertise is particularly acute when we are faced with a complex regulatory regime, such as CERCLA. In this situation, we recognize that the “well-reasoned views of an expert administrator rest on a body of experience and informed judgment to which courts and litigants may properly resort for guidance.” *Alaska Dep’t of Env’tl. Conservation*, 540 U.S. at 487 (internal citations and quotation marks omitted).

²²We note, however, that there need not be a linear progression from a removal to a remedial action. For example, “removal actions may be conducted in response to a time-critical situation at a remedial response site.” 53 Fed. Reg. 51,394, 51,405 (Dec. 21, 1988) (comment in the EPA’s proposed revisions to the National Contingency Plan).

Most notably, the EPA issued a memo in 2000 to guide project managers during the decisionmaking process of selecting between remedial and removal actions. *See* Stephen Luffig, Director, Office of Emergency and Remedial Response, Use of Non-Time-Critical Removal Authority in Superfund Response Actions (Feb. 14, 2000), *available at* <http://www.epa.gov/superfund/resources/remedy/pdf/memofeb2000-s.pdf> (last visited July 26, 2005) (hereinafter “Removal Memo”). Amplifying the National Contingency Plan’s focus on the immediacy of the threat, the Removal Memo emphasizes “time sensitivity,” i.e., “the need to take relatively prompt action,” as a key characteristic of removal actions: “[E]ven expensive and complex response actions may be removal action candidates if they are relatively time-sensitive.” Removal Memo, *supra*, at 3-4 (“For example, dredging large quantities of contaminated sediment could be conducted using removal authority where such action was the appropriate course for abating or controlling a time-sensitive threat.”).²³ An EPA report published in 2000 describing the removal program reiterates that “[t]he critical element in all cases is time—prompt action is crucial.” Office of Emergency and Remedial Response, EPA, EPA 540-K-00-002, The Emergency Response and Removal Program 3 (2000), *available at* http://www.epa.gov/superfund/resources/emergency_res.htm (last visited July 26, 2005) (hereinafter “Removal Program Report”).

Courts have also stressed the immediacy of a threat in

²³The three Action Memos all categorize the action in Libby as “Time Critical.” The EPA may also choose to conduct “non-time-critical” removal actions “when the lead Agency determines, based on the site evaluation, that a removal action is appropriate, and a planning period of at least six months is available before on-site activities must begin.” Office of Emergency and Remedial Response, EPA, Conducting Non-Time-Critical Removal Actions Under CERCLA, EPA/540/F-94/009, at 1 (Dec. 1993), *available at* <http://www.epa.gov/superfund/resources/remedy/pdf/540f-94009-s.pdf> (last visited July 26, 2005). This subset of removal actions is subject to more stringent procedural requirements.

deciding whether a cleanup is a removal action. *See, e.g., City of Wichita v. Trs. of APCO Oil Corp. Liquidating Trust*, 306 F. Supp. 2d 1040, 1077-78 (D. Kan. 2003) (city's cleanup was "remedial in nature" under CERCLA where "[t]he court has heard no evidence that the contamination at the Site posed a threat to human health or the environment which required an immediate response"); *Carson Harbor Vill., Ltd. v. Unocal Corp.*, 287 F. Supp. 2d 1118, 1157 (C.D. Cal. 2003) (finding action was remedial where "[t]here is no evidence in the record that the materials posed the type of threat to human health and welfare that required immediate action"); *Hatco Corp. v. W.R. Grace & Co.-Conn.*, 849 F. Supp. 931, 963 (D.N.J. 1994) (in finding response was a removal, placing "significant weight upon the fact that the release of [the hazardous substance] was not only imminent, but actually occurring").

While stressing time sensitivity, the Removal Memo downplays the importance that some courts have placed on duration, i.e., "how long the response action will take to build or implement," because "removal actions are most often of short duration, but they certainly can be long-running responses, too, thereby undercutting the probative value of duration . . . in deciding whether an action is removal rather than remedial in nature." Removal Memo, *supra*, at 3 n.2. *But see Sherwin-Williams Co. v. City of Hamtramck*, 840 F. Supp. 470, 475-76 (E.D. Mich. 1993) ("[T]he extended and protracted nature of the cleanup indicate that the City has engaged in a remedial action."). Accordingly, the action in Libby is not disqualified from being a removal action just because it took several years. *Cf. Vill. of Milford v. K-H Holding Corp.*, 390 F.3d 926, 934 (6th Cir. 2004) (explaining that the court has "never held" that the short-term nature of an action is required for finding costs recoverable as removal costs). The length of the cleanup in Libby is especially understandable given that harsh winters truncated the construction season and that the sheer magnitude of the initial cleanup far exceeded the normal situation faced by the EPA. *Cf. Sunoco*, 337 F.3d at 1244 (concluding

that action was a removal in part because it was finished in about 14 months, “a relatively short time frame in the context of a clean-up lasting more than a decade in a harsh environment” (internal quotation marks omitted)).

Likewise, the Removal Memo describes courts’ reliance on the “permanence” of the response as “sometimes misleading”: “As a practical matter, removal actions are often permanent solutions such as can be the case in a typical soil or drum removal.” Removal Memo, *supra*, at 3 n.3; *cf. Geraghty & Miller*, 234 F.3d at 927 (“Even if the replacements for these wells are integral to the long-term remediation of the site, that does not mean that their initial placement cannot be categorized as removal.”). This observation seems logical, as we do not want to tie the EPA’s hands or compel it to adopt short-term remedies for fear that any more permanent solutions automatically will be dubbed “remedial actions.” Nor would it make economic or practical sense to impose a requirement that removal actions must be only temporary in nature. The Removal Memo instead uses the term “comprehensiveness” to distinguish between the use of removal authority to conduct interim or partial response actions that are focused on immediate risk reduction as compared with a final or “comprehensive” response at the site. Removal Memo, *supra*, at 3 n.3. The Libby cleanup exhibits this two-tier approach of an interim removal action that the EPA transforms into a comprehensive remedial action. *Cf. Geraghty & Miller*, 234 F.3d at 926 (noting that “removal actions generally are immediate or interim responses”).

These informal interpretations combined with the descriptions in the National Contingency Plan provide a persuasive interpretation that removal actions encompass interim, partial time-sensitive responses taken to counter serious threats to public health. As the EPA explained in the Second Action Memo, “CERCLA was designed and enacted to prevent illness and death resulting from exposure to hazardous substances, not wait for its occurrence to prove a threat.”

Grace attempts to add another layer of complexity to our analysis by challenging various scientific and other methodology judgments made by the EPA as part of the cleanup. Once we determine that a response action on the whole is, by nature, classified as a removal action under the law, we will not delve further to second-guess the underlying data absent a showing of specific evidence that the EPA's conclusions were not warranted. *See Balt. Gas and Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 103 (1983). ("When examining this kind of scientific determination, as opposed to simple findings of fact, a reviewing court must generally be at its most deferential."). Although Grace argues in its briefs that the EPA's data and conclusions were wrong, it did not present evidence to support its claim that the EPA's selection of a removal action was arbitrary and capricious, *see* 42 U.S.C. § 9613(j)(2), or that its characterization of the action as a removal action did not comport with the statutory definition, *see* 42 U.S.C. § 9601(23). Of course, the EPA does not have free rein to ignore accepted scientific principle or to adopt findings that are wholly at odds with the record evidence. *See Great Basin Mine Watch v. United States EPA*, 401 F.3d 1094, 1098 (9th Cir. 2005) (court will overturn a final agency action if the agency "entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise") (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)). But such is not the case here. Nor can it be said that the EPA's conclusions are arbitrary and capricious. *See Env'tl. Def. Ctr., Inc. v. EPA*, 344 F.3d 832, 858 n.36 (9th Cir. 2003) (an agency decision is arbitrary and capricious if there is no rational connection between the decision and the facts in the record).

The disputes between Grace and the EPA regarding testing methodology and data analysis are exceedingly complex. The administrative record includes, for instance, the EPA's

response to Grace's contention that the EPA "inappropriately calculated PCMEs [phase contrast microscopy equivalents] if those findings are going to be compared to the OSHA PEL [Occupational Safety & Health Administration permissible exposure limits]." We are not scientists, nor do we intend to play armchair EPA administrator. But we are judges and it is our role to evaluate the record evidence against the standard of review. We defer to the EPA's reasoned judgment. *See Sunoco*, 337 F.3d at 1243 ("[*Skidmore*] deference seems particularly appropriate where an action reasonably can be classified as both 'removal' and 'remedial' under CERCLA's complex definitional provisions.").

The EPA's scientific basis for finding an immediate threat to the public health is thoroughly documented over thousands of pages. In addition to the detailed evaluation of the threat in the three Action Memos, the administrative record includes, for example, comprehensive reports by both the EPA's regional toxicologist and senior toxicologist explaining the imminent and substantial endangerment to public health in Libby, extensive responses by the EPA to Grace's comments on the cleanup, and lengthy findings by the Agency for Toxic Substances and Disease Registry on medical testing conducted on Libby residents. In particular, the Agency's February 22, 2001, report documents findings from its study conducted from July through November 2000 in which 1,078 people participated. Of those participants, the findings can be summarized as follows:

Type of Possible Exposure	Percentage who had a pleural abnormality ²⁴ on the chest radiograph that could be seen by at least two certified specialists
Grace Workers and secondary contractors	37%
Other work-related contacts with vermiculite	18%
Household contacts with Grace Workers	20%
Vermiculite insulation in home	14%
Some recreational contact with vermiculite	16%
No apparent exposure, but lives in or around Libby	14%

In comparison, the report recites the following statistics:

²⁴According to the report, “Asbestos exposure is associated with several changes in the pleura (lining of the lungs and internal chest wall). . . . They indicate past exposure to asbestos, and can often be detected in chest radiographs (CXW), also known as X-rays.” The report goes on to explain that “[t]he presence of any of these pleural abnormalities on chest radiograph, associated with asbestos exposure, indicates increased risk for mesothelioma and lung cancer.”

Studies of differing groups within the United States believed to have no substantive work-related asbestos exposures have found the prevalence of pleural abnormalities ranging from 0.02% among blue-collar workers in North Carolina [Castellan 1985], to 0.9% among loggers in Washington and Oregon [Stilbolt 1991], to 1.8% among New Jersey residents [Anderson 1979], and 2.3% among patients at Veterans Administration hospitals in New Jersey [Miller JA 1996].

Further, in response to the EPA's request that the Agency for Toxic Substances and Disease Registry comment on whether the proposed removal action was appropriate to protect the public health, the Agency concluded in a May 17, 2000, report that "Asbestos contamination is present at the screening plant and export plant at levels that pose a public health hazard. The time critical removal action proposed by EPA is warranted to protect the public health."

Beyond the findings that prompted the EPA to undertake the removal action, the administrative record also documents the concrete steps taken to combat this threat, such as removing vermiculite tailings from under and around running tracks at local schools, covering and demarcating major contaminated areas at residential properties, and cleaning the interiors of infected homes.

[11] In sum, given the sweeping language in the definition of "removal," the significant deference due to the EPA's interpretation of this language, and the scope of the interim cleanup, we hold that the EPA's cleanup in Libby falls within the bounds of a removal action. The EPA "has rationally construed the Act's text and [the] EPA's construction warrants our respect and approbation." *Alaska Dep't of Env'tl. Conservation*, 540 U.S. at 485. This holding comports with CERCLA's fundamental goal of protecting the public health. *See, e.g., Hanford Downwinders Coalition*, 71 F.3d at 1481

(“[T]his circuit has joined others in recognizing that protection of the public health was one of the remedial goals of CERCLA.”). Considering the chaotic history behind CERCLA’s passage, we are particularly sensitive not to adopt a reading that would undermine its remedial purpose. *See Clark v. Uebersee Finanz-Korporation*, 332 U.S. 480, 488 (1947) (advising that courts should not adopt an interpretation of statutory language that would “run counter to the policy of the Act and be disruptive of its purpose . . . [when] dealing with hasty legislation which Congress did not stop to perfect as an integrated whole”).

[12] In so holding, we recognize that Congress created a bifurcated scheme of removal and remedial actions and, accordingly, there must be outer limits to removal actions. But the EPA did not exceed these limits in this case. Nor need we delineate the outer parameters. We simply conclude that the EPA’s characterization of the cleanup in Libby as a removal action is amply supported by the administrative record and easily withstands scrutiny under the modified level of interpretive deference afforded by *Mead* and *Alaska Department of Environmental Conservation*. Although deference to the EPA’s interpretation is significant, it is not blind. Courts must, as a matter of law, ultimately determine that the EPA’s characterization of a given response action accords with CERCLA, as we so determine here.

[13] Crucial to our determination is the documented evidence that, absent immediate attention, the airborne toxic particles would continue to pose a substantial threat to public health. To combat this widespread, looming threat, the EPA had no choice but to undertake an aggressive removal action of an expansive scope. The removal activities easily fall within the statutory definition of removal. Notably, the definitions for removal and remedial actions consciously include some overlap. Because of the nature of the contaminant, some of the measures taken by the EPA as part of the removal action might also effect a permanent solution for a particular

location (e.g., removing exposed piles of vermiculite). But by no means did the removal action fully eliminate the public health threat or amount to a full-blown remediation. According to the EPA's CERCLIS database, the EPA is continuing work to ensure that potential or actual human exposures are under control. *See* <http://cfpub1.epa.gov/supercpad/cursites/csinfo.cfm?id=0801744> (last visited July 26, 2005). Although Libby's problems appear far from solved, the EPA is making progress. As envisioned by CERCLA, the EPA plans to effect a comprehensive resolution to the asbestos contamination through the pending remedial action.

II. EXEMPTIONS FROM THE \$2 MILLION, 12-MONTH STATUTORY CAP APPLICABLE TO REMOVAL ACTIONS

Having determined that the action is properly characterized as a removal action, the inquiry turns to whether the EPA can recover costs in excess of the \$2 million, 12-month statutory cap on removal actions. *See* 40 C.F.R. § 300.415(b)(5). The district court found persuasive the EPA's explanations in the Action Memos of the immediate risk to public health. *Grace I*, 280 F. Supp. 2d at 1144. We agree and hold that, considering the widespread and pervasive asbestos contamination and the potential for further migration of asbestos fibers as documented in the Action Memos, the EPA's decision to exceed the statutory cap was not arbitrary and capricious.

[14] We begin with the language of 42 U.S.C. § 9604(c)(1):

Unless (A) [the EPA] finds that (i) continued response actions are immediately required to prevent, limit, or mitigate an emergency, (ii) there is an immediate risk to public health or welfare or the environment, and (iii) such assistance will not otherwise be provided on a timely basis, . . . obligations from the Fund . . . shall not continue after \$2,000,000 has been obligated for response actions or 12 months has elapsed from the date of initial

response to a release or threatened release of hazardous substances.

See also 40 C.F.R. § 300.415(b)(5) (limiting actions to \$2 million and 12 months “unless the lead agency determines that” one of the exemptions applies). Despite Grace’s assertion that the decision to exceed the cap is not subject to arbitrary and capricious review, the fact that the statute allows the EPA to invoke the exemptions when it “finds” certain conditions counsels otherwise. *See* 5 U.S.C. § 706(2) (courts should set aside agency conclusions and findings where “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law”). The EPA’s determinations in this case that there was an emergency, that the risk to public health was immediate, and that the assistance would not otherwise be forthcoming are inherently fact-based.

In the First Action Memo, the EPA determined that the removal action met the three statutory elements required to exceed the cap. *See* § 9604(c)(1)(A). Namely, (1) the asbestos in the environment posed an immediate threat to the local population; (2) a cleanup beyond the cap was required to prevent, limit, or mitigate an emergency²⁵ because of the size of

²⁵The term “emergency” is not defined in CERLCA or the National Contingency Plan, and the EPA has interpreted it to include a range of time-sensitive threats:

Not all actions begin under what are commonly thought of as “emergency” conditions. Though events such as tire fires, train derailments, and chemical explosions require immediate action, other less dramatic threats to public health are addressed under EPA’s Emergency Response and Removal Program. Such threats include the discovery of leaking drums or tanks at an abandoned factory or complaints of tainted drinking water near a landfill. Regardless of the circumstances, quick and efficient cleanup of hazardous material eliminates risks to people and the environment and minimizes the stigma contamination can bring to properties and communities.

Removal Program Report, *supra*, at 3.

the cleanup and the short construction season; and (3) assistance from other government agencies was not anticipated on a timely basis. The Second Action Memo reiterated this reliance on the “emergency exemption,” explaining that “[a]t all the locations discussed in this Action Memorandum if Removal Actions are not initiated or continued then people will be exposed to unsafe levels of amphibole asbestos.” In light of the EPA’s documentation of complete exposure pathways and the resulting continuing threat to public health, we hold that the EPA “articulate[d] a rational connection between the facts found and the conclusions made.” *Envtl. Def. Ctr.*, 344 F.3d at 858 n.36.

Turning to the Third Action Memo, the EPA continued its reliance on the emergency exemption, once again citing the statutory factors and explaining that a continued removal action was necessary to prevent exposure to unsafe levels of asbestos. In addition, the EPA relied on the “consistency exemption,” which allows for a continued removal action over the cap when it is “otherwise appropriate and consistent with the remedial action to be taken.” 42 U.S.C. § 9604(c)(1)(C); *see also* 40 C.F.R. § 300.415(b)(5)(ii) (corresponding provision). At the time the Third Action Memo was released, the EPA had proposed Libby to the National Priorities List but it had not yet been listed. Thus, as envisioned in the Action Memos, the removal action in Libby was not an exhaustive cleanup effort. Rather, the EPA has segued into the remedial phase and, in the interim, found that “[c]ontinued response actions are appropriate and consistent with the remedial actions to be taken.”

On a practical level, the need to exceed the cap is not surprising given the urgency, magnitude, and long-standing nature of the problem. First, the tremendous scope of the removal in Libby made the \$2 million ceiling unworkable. An entire town needed to be cleaned up, not just a mobile home park, *Carson Harbor Vill.*, 270 F.3d at 867, or a “five-acre parcel of land,” *Chapman*, 146 F.3d at 1168. In contrast to

these localized threats, the EPA explained in its response to comments received from Grace in December 2001 that it still had more than 2000 properties to sample around Libby.

The 12-month limit was also impractical given both the scale of the effort and the meteorological reality of the harsh conditions, which result in a short construction season and thus necessitate several years to complete cleanup activities that might be completed considerably faster in a more temperate climate. The severe winters and hot summers are further problematic in that they exacerbate the spread of asbestos particles through wind and erosion. Cleansing the site of these widespread particles requires such labor-intensive acts as bulk removal of contaminated materials followed by thorough cleaning and vacuuming of the houses.

[15] Given these daunting realities and the EPA's careful documentation of its reasons for invoking the emergency and consistency exemptions, we hold that the EPA's decision to exceed the statutory cap was based on the relevant factors, there has been no clear error of judgment, and the decision was not arbitrary and capricious. *See Marsh v. Or. Nat'l Res. Council*, 490 U.S. 360, 378 (1989); *Env'tl. Def. Ctr.*, 344 F.3d at 858 n.36. Therefore, the EPA is entitled to recover the full costs of its removal action in Libby as found by the district court.

III. INDIRECT COSTS CALCULATION

Finally, Grace complains that the methodology used to calculate indirect costs of \$11,322,226 overstated the EPA's costs attributable to the Libby response action. *See Grace II*, 280 F. Supp. 2d at 1173, 1187 (calculating indirect costs). Grace disputes the use of total site-specific costs as the basis for calculating indirect costs, arguing that because the EPA delegated substantial authority to the U.S. Department of Transportation, the EPA's overhead was substantially lower

than it would have been had the EPA administered the entire project directly.

After review of the district court's extensive findings on the indirect costs methodology and its application to this particular case, *see id.* at 1167-73, we conclude that the district court did not err in its award of indirect costs. *See W. Props. Serv. Corp. v. Shell Oil Co.*, 358 F.3d 678, 685 (9th Cir. 2004) ("The district court's findings of fact can be reversed only if clearly erroneous, and not merely because we might have found otherwise on the same evidence.").

[16] CERCLA authorizes the EPA to recover "all costs of removal or remedial action . . . [that are] not inconsistent with the national contingency plan." 42 U.S.C. § 9607(a)(4)(A). "All costs" include indirect costs such as administrative and other overhead costs incurred in managing the greater Superfund program. *See, e.g., United States v. Dico*, 266 F.3d 864, 878 (8th Cir. 2001) (concluding that "oversight and indirect costs are recoverable in remedial actions under CERCLA"). In order to capture these costs from disparate CERCLA response actions, "Allocating indirect costs that cannot be directly accounted for as costs of a specific project is a well-established accounting practice." *Kennecott Utah Copper Corp. v. United States DOI*, 88 F.3d 1191, 1224 (D.C. Cir. 1996).

Grace maintains that the EPA should have used the "labor hour" approach that the EPA abandoned in 2000. Under the labor hour method, the indirect costs attributable to each site were calculated based on the number of hours that EPA personnel charged to a site during a fiscal year. *Cf. United States v. R.W. Meyer, Inc.*, 889 F.2d 1497, 1503-04 (6th Cir. 1989) (calculating indirect costs using labor hours method). In contrast, the new "full cost" methodology allocates indirect costs based on the total site-specific expenditures incurred for a particular site.

The EPA explains that the labor hours method was rejected because it did not identify the full costs of Superfund site cleanups, and the revised methodology is a better process for estimating and allocating the total Superfund overhead costs. The revised methodology is also supported by reports from the General Accounting Office and the accounting firm KPMG, which found that the full cost approach complies with the federal government's costs accounting standards. *See Grace II*, 280 F. Supp. 2d at 1171-72; *see also* Guidance on Exercising CERCLA Enforcement Discretion in Anticipation of Full Cost Accounting Consistent With the "Statement of Federal Financial Accounting Standards No. 4," 65 Fed. Reg. 35, 339 (EPA June 2, 2000).

[17] In awarding the EPA \$11.32 million in indirect costs, the district court found that the "EPA's revised methodology is an appropriate accounting measure of its indirect costs charged to Superfund sites, including the Libby Asbestos Site." *Grace II*, 280 F. Supp. 2d at 1169. The district court reached this conclusion after a three-day trial and detailed findings. Grace characterizes this conclusion as a legal error meriting de novo review. We disagree. The district court's approach comports with the statute; the court's findings on the methodology and its application to this case are supported by the record, *id.* at 1167-73, and we will not overturn them except for clear error. *See W. Props. Serv. Corp.*, 358 F.3d at 685. Besides, we do not think it is in anyone's interest to have appellate courts step into the accountants' shoes and determine the accuracy of accounting calculations de novo. Grace's arguments do not rise to the level of demonstrating that the district court's findings were clearly erroneous. We are particularly hesitant to second-guess the district court's judgment on this issue where the court specifically found that Grace's accounting expert was "not credible." *Grace II*, 280 F. Supp. 2d at 1169, 1171 ("[Grace's] accounting expert . . . does not know what methodology the EPA should use to recover its indirect costs.").

CONCLUSION

We AFFIRM the district court's order granting the EPA summary judgment on the liability issue. We also AFFIRM the district court's order awarding the EPA \$54,527,081.11 in costs and a declaratory judgment on the liability of Grace for future costs.

AFFIRMED.

BEA, Circuit Judge, concurring:

I concur in the result that the majority reaches. The EPA's activities in Libby, Montana, when taken as a whole, are properly classified as a removal action in response to the immediate threat posed by the large quantities of friable asbestos found in Libby. *See, e.g.*, Majority Opinion at p.15576 *ante* (noting that EPA toxicologist reported that Libby residents were being exposed to airborne asbestos in excess of OSHA's permissible occupational exposure level). Accordingly, I would uphold the EPA's classification of its Libby response action under *Mead* as opposed to *Chevron* deference. *See United States v. Mead Corp.*, 533 U.S. 218, 234-35 (2001).

Under CERCLA, the EPA can recover "all costs of removal or remedial action . . . not inconsistent with the national contingency plan." 42 U.S.C. § 9607(a)(4)(A). The regulations set forth the national contingency plan standards governing the EPA's selection of a response action. *See* 40 C.F.R. § 300.415. In conducting judicial review, this court "shall uphold the President's decision in selecting the response action unless the objecting party can demonstrate, on the administrative record, that the decision was arbitrary and capricious or otherwise not in accordance with the law." 42 U.S.C. § 9613(j)(2).

The national contingency plan regulations governing removal action also provide that “[i]n determining the appropriate extent of action to be taken in response to a given release, the lead agency shall first review the removal site evaluation, any information produced through a remedial site evaluation . . . and the current site conditions, to determine if removal action is appropriate.” 40 C.F.R. § 300.415(a)(1). Thus, the regulations govern not only the EPA’s selection of a response action, but also its determination of the extent of a response action. *Id.* at 300.415(a)(1). I would also review this latter determination under the arbitrary and capricious standard stated in 42 U.S.C. § 9613(j)(2).

For example, the EPA’s decision to excavate the vermiculite tailings buried beneath the Libby Middle School track warrants scrutiny. According to a letter from the superintendent of Libby’s schools, the EPA had concluded that “[s]ince the asbestos . . . detected is all at depth and, in some cases, covered by the track,” “there is not currently a risk of exposure.” Were this the only finding in the record, I would be hard pressed to see any rational connection between this finding and the decision to include the Middle School track in the EPA’s removal action.

However, the record contains additional findings that supply a rational reason for removing the track. Specifically, the EPA found that “there was some amount of the [asbestos-containing] material readily exposed in high traffic areas” and a risk of exposure to workers performing routine maintenance on the track. Soil samples from the Middle School track also show a 2-8% asbestos concentration at a depth of between 2 and 24 inches in the soil surrounding the track. ER 388. Thus, after a careful review of the record, I would conclude the EPA has made a reasoned decision in including the Libby Middle School in its removal action and would allow recovery of costs incurred there.

Thus, while I concur in the result of the majority’s decision, I write separately to emphasize that this court should stand

ready to review separately the EPA's actions at different locations at a removal site under the "arbitrary and capricious" standard stated in 42 U.S.C. § 9613(j)(2).