APPENDIX

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FOR PUBLICATION

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

UNITED STATES OF AMERICA, *Plaintiff-Appellee,* v. W.R. GRACE & CO.; KOOTENAI DEVELOPMENT, CORPORATION; W.R. GRACE & CO. CONN., *Defendants-Appellants.*	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 Corporation, and W.R. Grace & Co.-Conn. (collectively, "Grace") do not dispute that they are financially obligated

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[1] Although 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*").

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 future costs. Finally, Grace

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[2] In 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.

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 actions[4] are typically described as time-sensitive responses

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[3] The 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.

[4] Although "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

to 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 EPA[5] may exceed this cap if it determines one of two exemptions applies:

> 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
>
> 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).

> 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 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).

[5] In 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.

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

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[6] As with "removal," the definition of "remedial action" has a maze-like structure:

> 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.

42 U.S.C. § 9601(24).

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 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

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[7] The 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

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 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 action[9] 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.

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

[9] The 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).

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 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,

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[10] To 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.

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 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.

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[11] The 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).

[12] According 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).

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 & 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 clearcut 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

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[13] Under 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.

removal action of a size and cost not previously seen. But the situation in Libby was, and remains today, truly extraordinary.

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.").

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.

The National Contingency Plan requires the EPA to consider a series of factors[15] to determine that it was

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[14] Grace 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.

[15] 40 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;

appropriate 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 factors[16] 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

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(ii) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

(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.

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

vermiculite by Libby residents led the EPA in its Second Action Memo to 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.

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 interpretation. "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. Thompson, 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.

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 Envtl. 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 interpretation may

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[17] Although 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).

[18] The 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