NEW MEXICO ENVIRONMENT DEPARTMENT'S
RESPONSE TO PUBLIC COMMENTS
ON THE PROPOSED ORDER TO GIANT REFINING COMPANY
(Public Comment Period Ending August 21, 2006)

July 27, 2007

Introduction. The New Mexico Environment Department (the Department) is hereby responding to comments it received from the public on the draft Order encaptioned *New Mexico Environment Department v. San Juan Refining Co. and Giant Industries Arizona, Inc.*, which the Department is issuing pursuant to sections 74-4-10.1 and 74-4-13 of the New Mexico Hazardous Waste Act (HWA). The Department released the draft Order and made it available for public comment for sixty days beginning on June 21, 2006.

The Order requires San Juan Refining Company and Giant Industries Arizona, Inc. (the Respondents or Giant) to investigate and clean up soil, groundwater, and surface water contamination at the Bloomfield Refinery in San Juan County near the City of Bloomfield (the Facility). Specifically, the Order requires the Respondents to: 1) perform interim measures at the Facility to mitigate any potential threats to health or the environment from the release of hazardous or solid waste; 2) fully determine the nature and extent of environmental contamination at the Facility; 3) identify and evaluate alternatives for corrective measures to clean up such contamination and prevent its further migration; and 4) implement such corrective measures.

The Department received comments from San Juan Refining Company and Giant Industries Arizona, Inc., the Respondents. The Department appreciates the comments it has received. The Department carefully considered these comments, and has made several revisions to the final Order based on these comments. A summary of the comments, and the Department's response to each comment, follows. Whether or not modifications were made to the Order are indicated below each numbered comment response.

A. GENERAL

1. Comment: The commenters state that they were not given the opportunity to discuss the draft Order with the Department prior to its release.

Response: The Department agrees that Giant was not given the opportunity to discuss the draft Order with the Department before it was released. However, the Department released a draft of the Order and invited the public, including Giant, to comment on the draft Order during a 60-day public comment period. After receiving Giant's comments, the Department met with representatives of Giant to discuss their concerns with the draft Order. The Department has carefully considered Giant's comments, and has made substantial changes to the Order in response to those comments and the concerns expressed in the meeting.

Order Modification: None.

2. Comment: The commenters raise three general questions with the Order: (i) the applicability of the Order to "issues outside RCRA[1] jurisdiction," (ii) the "assumption that an imminent and substantial endangerment to human health and the environment exists at the Facility," and (iii) the interplay of the Order with the U. S. Environmental Protection Agency (EPA) Administrative Order on Consent (Dec. 31, 1992), the Stipulated Final Order with the New Mexico Energy Minerals and Natural Resources Department, Oil Conservation Division (OCD) (March 1, 2006), and the Consent Agreement and Final Order with EPA (May 18, 2006).

Response: The commenters' first question relates to the scope of the Order. The Department disagrees with the commenters statement that the Order addresses issues "outside the jurisdiction" of RCRA. As a clarification, the Department notes that it is issuing the Order not under RCRA, but under the HWA, the State analogue to RCRA. Nevertheless, both statutes contain very similar authority. The Department is issuing the Order primarily pursuant to its authority under sections 74-4-13 and 74-4-10.1 of the HWA, as well as section 74-4-10(E). These provisions have nearly identical counterparts in sections 7003, 3013, and 3008(h) of RCRA.[2] The terms of the Order are wholly consistent with these authorities. The Department addresses this issue in more detail in response to **Comment #15**.

The commenters' second question relates to the Department's finding of an "imminent hazard." The Department has determined, in accordance with section 74-4-13 of the HWA, that the handling, storage, treatment, or disposal of hazardous waste or solid waste at the Facility may present an imminent and substantial endangerment to health and the environment. It is not an assumption, but a specific finding based on facts in the administrative record that are set forth in detail in Part II of the Order. The Department addresses this issue in more detail in response to **Comment #9**.

The commenters' third question relates to settlement agreements addressing wastes and contamination at the Facility. The Department agrees that the draft Order is potentially duplicative of the 1992 Administrative Order on Consent between Giant and EPA. Before issuing the draft Order, the Department discussed this issue with EPA Region 6. EPA has decided to withdraw the 1992 administrative order once the Department has issued its final Order, provided it includes adequate and enforceable corrective action requirements, as EPA stated in a letter dated November 29, 2006. This issue is discussed in greater detail in response to **Comment #12**.

The Department also agrees that there is some overlap between the Order and the March 2006 Stipulated Final Order with the OCD. However, the requirements are distinct. The

[1] The reference is to the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 to 6992k, which is the federal analogue to the New Mexico Hazardous Waste Act, NMSA 1978, §§ 74-4-1 to 74-4-14.

[2] 42 U.S.C. §§ 6934, 6973, and 6928(h).

OCD Stipulated Final Order addresses cleanup of contaminated media north of the newly installed barrier that extends along part of the north and west sides of the Facility (OCD Stipulated Final Order Section 18(a)), testing of facility tanks, sumps and ancillary equipment to identify sources of releases to the environment (OCD Stipulated Final Order Section 18(b)), and a very general requirement for submittal of a plan for monitoring and remediation of groundwater (OCD Stipulated Final Order Section 18(c)). That plan is being prepared in coordination with the Department. In contrast, the Department's final Order provides specific requirements for the investigation of SWMU's and AOC's, monitoring of the barrier wall and River Terrace remediation system, and Facility-wide groundwater monitoring. The specific requirements for field investigation, monitoring, reporting and risk evaluation are included to ensure the validity and consistency of corrective action activities throughout the Facility. The Department will coordinate closely with OCD in implementing the final Order.

Finally, the Department does not agree that there is any duplication or overlap between the Order and the May 2006 Consent Agreement and Final Order between EPA and Giant. The 2006 EPA agreement addresses treatment of the wastewater at the Facility, an entirely separate issue not addressed under the Order.

Order Modification: None.

3. Comment: The commenters state that they are "disappointed" that the Department chose to issue a unilateral order, rather than to negotiate a consent order with Giant. They maintain that issuing a unilateral order is "inconsistent with federal RCRA corrective action policies, and inconsistent with the method used by [the Department] at other RCRA corrective action facilities in the State of New Mexico." They further state that it "seems at the least arbitrary and capricious, inconsistent with law, inconsistent with running [the Department's] RCRA program in accordance with the federal RCRA program, and a denial of equal protection and due process."

Response: The Department disagrees with these statements. The commenters make these statements in a conclusory fashion, offering no support for them. Each of the statements is incorrect, as a matter of law, or fact, or both.

First, the Department's action is consistent with EPA policy. EPA has often issued unilateral cleanup orders under section 7003 of RCRA. Nothing in RCRA requires EPA to seek to negotiate a consent order before it can issue an order under section 7003 (nor does anything in the HWA place such a requirement on the Department). Moreover, nothing in EPA guidance on the use of section 7003 of RCRA suggests such a policy.[3]

Second, the Department's action is consistent with actions it has taken at other facilities in New Mexico. For example, on May 2, 2002, the Department released for public comment a draft order under sections 74-4-10.1 and 74-4-13 of the HWA for cleanup of

[3] *See* EPA, Guidance on the Use of Section 7003 of RCRA (Oct. 1997).

Los Alamos National Laboratory. The Department issued a final Order to the United States Department of Energy (DOE) and the University of California, the owner and operators of Los Alamos National Laboratory (LANL), on November 22, 2002. Similarly, in February 1997, the Department filed a lawsuit under section 74-4-13 against Sparton Technology, Inc. In neither of these cases did the Department seek to negotiate a settlement agreement before taking final action.

Third, the Department's action is neither arbitrary nor capricious. Nothing in the HWA requires the Department to attempt to negotiate a consent order prior to issuing an order under sections 74-4-10.1 or 74-4-13. Nevertheless, the Department issued the Order in draft form, and provided an opportunity for the public, including Giant, to comment on the draft Order. The Department is also meeting with Giant to discuss its comments. These steps go beyond what the law requires.

Fourth, the Department's action is wholly consistent with law. As explained above, nothing in the HWA requires the Department to attempt to negotiate a consent order prior to issuing a final order under sections 74-4-10.1 or 74-4-13.

Fifth, the Department's action is not a denial of equal protection of the law. Even if the Department had treated Giant differently from other similarly situated facilities – which it has not – such treatment would not amount to a violation of equal protection. The Department has considerable discretion in using various authorities under law to attain cleanup of environmental pollution. "The conscious exercise of some selectivity in enforcement . . . is not in itself" a violation of equal protection. *Zaintz v. City of Albuquerque*, 739 F. Supp. 1462, 1472 (D.N.M. 1990). To be a violation of equal protection, the selection must be "based on an impermissible standard such as race, religion, or other arbitrary classification." *Id*. The commenters have not suggested such an impermissible standard, nor is there any basis to allege one. The commenters' conclusory statement that the Department has violated Giant's right to equal protection of the law is wholly without merit.

Finally, the Department's action is not a denial of due process. Due process does not entitle Giant to a negotiated settlement. Giant has had the opportunity to review the administrative record supporting the draft Order, and to comment on the draft Order in a meaningful manner. Further, Giant, and other members of the public, will be given the opportunity to comment on each remedy that the Department selects for cleanup of the Facility, or for cleanup of individual sites at the Facility,[4] as expressly provided in Section VI.C.7 of the draft Order. *See, e.g., United States v. Seymour Recycling Corp.*, 679 F. Supp. 859, 863-65 (S.D. Ind. 1987) (finding that the defendants were not deprived of due process where they were given the opportunity to provide meaningful comment on EPA's remedy selection). Moreover, Giant can appeal the final Order to the New Mexico

[4] In section IV.B,3, the Order identifies 26 individual "interim status units," other "solid waste management units" (SWMU's), and "areas of concern" (AOC's) to be investigated and, as necessary, cleaned up. Section IV.B.8 of the Order provides for the identification of additional SWMU's or AOC's that are newly discovered during implementation.

Court of Appeals under section 74-4-14 of the HWA, a right that is expressly stated in Section III.O of the draft Order. Giant's due process rights have been carefully protected.
Order Modification: None.

4. Comment: The commenters state, "it appears . . . that the process broke down in the issuance of this draft Order, as efforts were not made prior to its issuance to negotiate a consent Order."

Response: The Department disagrees that the process has "broke[n] down." To the contrary, this matter is proceeding satisfactorily, as the Department intended, and in accordance with law.

Order Modification: None.

5. Comment: The commenters state their desire to work cooperatively with the Department to craft an appropriate order that will place the Department in the lead on corrective action at the Facility, and protect public health and the environment.

Response: The Department agrees with this comment.

Order Modification: None.

6. Comment: The commenters assert that the Order overlaps extensively with the closure and post-closure requirements for the Facility, and therefore request that the closure and post closure requirements, and the corrective action requirements, be included in the same enforceable document.

Response: The Department does not believe that combining the cleanup requirements and the closure and post-closure requirements for the Facility into one document, though facially appealing, is practical or desirable. The Department's reasoning is set forth in response to **Comment #8**.

Order Modification: None.

B. FORM OF ORDER

7. Comment: The commenters maintain that the preference for environmental agencies is to use administrative orders on consent rather than unilateral administrative orders. The commenters quote at length from EPA's guidance on the use of section 7003 of RCRA. The commenters also quote at length from a document authored by the Commonwealth of Kentucky.

Response: The Department disagrees that environmental agencies have any general "preference" to use consent orders rather than unilateral orders to require cleanup of environmental pollution. Environmental agencies have considerable discretion in choosing the legal mechanism for requiring cleanup, and they use an assortment of such

mechanisms at different facilities. Indeed, at a great many facilities, corrective action is conducted pursuant to a hazardous waste permit, which the agency almost always issues unilaterally.

EPA's guidance on the use of section 7003 of RCRA acknowledges this discretion. It states that "[t]he Region[al Office] has the discretion to issue a [unilateral administrative order] without engaging in negotiation for an [administrative order on consent]." One important reason that EPA mentions for using a unilateral order is that issuing a unilateral order "may be less time-consuming than engaging in negotiations for an" administrative order on consent.[5] That is a primary reason that the Department decided to issue a unilateral order in this case. Nevertheless, the Department has solicited and received from Giant comments on the draft order, and it has revised the Order in response to those comments. The Department also met with Giant to discuss Giant's comments and concerns prior to issuing the final Order. Thus, although the Order is unilateral in form, some of its terms have been negotiated with Giant.

The Department does not believe that guidance from the Commonwealth of Kentucky is relevant or particularly useful.

Order Modification: None.

C. CLOSURE AND POST-CLOSURE CARE REQUIREMENTS

8. Comment: After a fairly lengthy background discussion, the commenters request that the Department combine the closure and any necessary post-closure requirements for the Facility with the corrective action order. They cite EPA guidance in support of this request.

Response: The Department agrees that there can be advantages to combining the cleanup requirements and the closure and post-closure care requirements for the Facility into one document. The Order requires corrective action for soil and groundwater contamination beneath the hazardous waste management unit at the Facility. The Order therefore effectively addresses one aspect of closure requirements. The Department believes that other aspects of the closure requirements are more appropriately addressed using other mechanisms.

The only unit at the Facility that is subject to closure and post-closure care requirements is the surface impoundment – the North Aeration Lagoon and the South Aeration Lagoon – that Giant uses to treat wastewater containing benzene from the API separator. The May 2006 Consent Order with EPA provides that the surface impoundment's hazardous waste treatment function will be replaced with benzene strippers, and it will no longer be used to treat D018 listed wastes. Under the Hazardous Waste Management Regulations, 20.4.1.500 NMAC (New Mexico Administrative Code) (incorporating 40 CFR 264.113),

[5] EPA, Guidance on the Use of Section 7003 of RCRA, at 26 (Oct. 1997).

closure of a hazardous waste management unit must begin within 90 days after receipt of the final volume of hazardous waste in the unit. Thus, once the benzene strippers are installed and operating, the closure requirement will be triggered. Because the Order will address contamination beneath the impoundment, the Closure Plan will only need to address the hazardous waste above the liner. It will require Giant to remove all sludge and hazardous constituents from the impoundment, inspect the liner for damage, and make any necessary repairs to the liner. This work will proceed sequentially in the North and South Aeration Lagoons to minimize disruption of Facility operation.

The Department understands that Giant will continue operating this surface impoundment – to receive treated, non-hazardous waste – into the foreseeable future. This operation is likely to continue long after the Order has terminated. Thus, to address soil and groundwater monitoring around the impoundment, which will be necessary for the long term, the Department will require Giant to submit an application for a post-closure care permit for the impoundment. The permit will require Giant to conduct short-term and long-term monitoring of the soil and groundwater in the vicinity of the surface impoundment.

These measures are described in the Department's April 25, 2007 letter to Troy Hill of the Multimedia Planning and Permitting Division, EPA Region 6.

Order Modification: Although the Department has not made any changes to the substantive provisions of the final Order in response to this comment, it has revised the Findings of Fact in Section II.A of the Order to reflect the requirements of the May 2006 EPA Consent Order. The Department has revised Paragraphs 51 and 62 and added a new Paragraph 120. It has also added the EPA Order as a new reference for the Findings of Fact, listed as item 25.

D. IMMINENT AND SUBSTANTIAL ENDANGERMENT

9. Comment: The commenters dispute the Department's finding that there is an imminent and substantial endangerment to human health or the environment at the Facility.

Response: The Department disagrees with this comment. The Department has concluded that the past and current handling, storage, treatment, or disposal of hazardous waste and solid waste at the Facility may present an imminent and substantial endangerment to health or the environment within the meaning of section 74-4-13 of the HWA. Further, the Department has concluded that the presence of hazardous waste at the Facility, and the release of such waste from the Facility or from sites at the Facility may present an imminent hazard to human health or the environment within the meaning of section 74-4-10.1 of the HWA. The Order is predicated on these findings. These findings are supported by substantial evidence in the administrative record, which is described in detail in Section II.A of the Order.

The Department's conclusions regarding the Facility are consistent with EPA and judicial interpretation of RCRA. Sections 74-4-13 and 74-4-10.1 of the HWA are very similar to sections 7003 and 3013 of RCRA. EPA and the courts have interpreted the language of section 7003 of RCRA quite broadly as discussed below. Although there is little interpretation of section 3013, the Department believes it should be given a similarly broad interpretation.

First, the courts have held that an imminent and substantial endangerment to health or the environment is not necessarily an emergency.[6] In an action under section 7003 of RCRA, "EPA need not prove that an emergency exists to prevail."[7] EPA guidance similarly states that "[i]t is not necessary for the endangerment to be . . . tantamount to an emergency."[8]

Second, the courts have held that it is not necessary to show actual harm to prove an endangerment, only a *risk* of harm. The term "endangerment" in the imminent hazard provision of RCRA "means a threatened or potential harm and does not require proof of actual harm."[9] EPA has said much the same thing in its guidance on the use of section 7003.[10]

Third, EPA only needs to show that there *may* be an endangerment. Focusing on Congress' use of the word "may" to preface the standard of liability under section 7003, one court observed that "EPA need not prove that an endangerment actually exists," but only "that there *may* be 'an . . . endangerment.'"[11] Several courts have concluded that this "expansive language . . . is intended to confer upon the courts the authority to grant affirmative equitable relief to the extent necessary to eliminate *any risk* posed by toxic wastes."[12]

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[6] *E.g., Dague v. City of Burlington*, 935 F.2d 1343, 1355-56 (2d Cir. 1991); *United States v. Waste Indus., Inc.*, 734 F.2d 159, 165 (4th Cir. 1984); *United States v. Union Corp.*, 259 F. Supp. 2d 356, 399 (E.D. Pa. 2003); *Wilson v. Amoco Corp.*, 989 F. Supp. 1159, 1174 (D. Wyo. 1998); *United States v. Valentine*, 856 F. Supp. 621, 626 (D. Wyo. 1994).

[7] *United States v. Waste Indus., Inc.*, 734 F.2d 159, 168 (4th Cir. 1984).

[8] EPA, Guidance on the Use of Section 7003 of RCRA, at 10 (Oct. 1997).

[9] *E.g., Interfaith Cmty. Org. v. Honeywell Int'l, Inc.*, 399 F.3d 248, 258 (3d Cir.), *cert. denied*, 545 U.S. 1129 (2005); *accord Parker v. Scrap Metal Processors, Inc.*, 386 F.3d 993, 1015 (11th Cir. 2004); *Davis v. Sun Oil Co.*, 148 F.3d 606, 610 (3d Cir. 1998); *Price v. U.S. Navy*, 39 F.3d 1011, 1019 (9th Cir. 1994); *Dague v. City of Burlington*, 935 F.2d 1343, 1356 (2d Cir. 1991).

[10] EPA Guidance on the Use of Section 7003 of RCRA, at 10 (Oct. 1997).

[11] *United States v. Valentine*, 856 F. Supp. 621, 626 (D. Wyo. 1994) (emphasis in original); *see also Interfaith Cmty. Org. v. Honeywell Int'l, Inc.*, 399 F.3d 248, 258 (3d Cir.), *cert. denied*, 545 U.S. 1129 (2005); *Parker v. Scrap Metal Processors, Inc.*, 386 F.3d 993, 1015 (11th Cir. 2004).

[12] *Dague v. City of Burlington*, 935 F.2d 1343, 1355 (2d Cir. 1991) (emphasis in original); *accord Parker v. Scrap Metal Processors, Inc.*, 386 F.3d 993, 1015 (11th Cir. 2004); *United States v. Price*, 688 F.2d 204, 214 (3d Cir. 1982).

Fourth, the courts have held that an "imminent" harm need not be immediate, and may be years away, provided that the threat of harm is imminent. Thus, several courts construing RCRA have held that "[a] finding of 'imminency' does not require a showing that actual harm will occur immediately so long as the risk of threatened harm is present."[13] Further, "[a]n endangerment is 'imminent' if factors giving rise to it are present, even though the harm may not be realized for some time."[14] EPA makes a similar statement in its guidance on section 7003.[15] This interpretation is further supported by the legislative history of RCRA.[16]

Fifth, several courts have held that it is not necessary to "quantify" an endangerment to show that it is "substantial."[17] Courts have stated that an endangerment can be based on "nondefinitive data"[18] or "circumstantial evidence."[19] Proof of an endangerment does not require a "rigorous step-by-step proof of cause and effect."[20] Further, an endangerment under RCRA "may be assessed from suspected, but not completely substantiated, relationships between facts, from trends among facts, from theoretical projections, from imperfect data, or from probative preliminary data not yet certifiable as 'fact.'"[21] Accordingly, several courts have concluded that an "endangerment is 'substantial' if there is some reasonable cause for concern that someone or something may be exposed to risk or harm if remedial action is not taken."[22] EPA states a similar position in its section 7003 guidance.[23]

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[13] *Cox v. City of Dallas*, 256 F.3d 281, 299 (5th Cir. 2001); *Price v. U.S. Navy*, 39 F.3d 1011, 1019 (9th Cir. 1994); *Dague v. City of Burlington*, 935 F.2d 1343, 1356 (2d Cir. 1991).

[14] *Me. People's Alliance v. Holtrachem Mfg. Co.*, 211 F. Supp. 2d 237, 247 (D. Me. 2002); *accord* Wilson v. Amoco Corp., 989 F. Supp. 1159, 1174 (D. Wyo. 1998); *United States v. Valentine*, 856 F. Supp. 621, 626 (D. Wyo. 1994).

[15] EPA, Guidance on the Use of Section 7003 of RCRA, at 10 (Oct. 1997).

[16] S. REP. NO. 98-284, at 59 (1983), *reprinted in* 2 SENATE COMM. ON ENV'T & PUBLIC WORKS, 102D CONG., A LEGISLATIVE HISTORY OF THE SOLID WASTE DISPOSAL ACT, AS AMENDED 2390-91 (1991), at 2023, 2085.

[17] *Interfaith Cmty. Org. v. Honeywell Int'l, Inc.*, 399 F.3d 248, 259 (3d Cir.), *cert. denied*, 545 U.S. 1129 (2005); *United States v. Union Corp.*, 259 F. Supp. 2d 356, 400 (E.D. Pa. 2003); *Me. People's Alliance v. Holtrachem Mfg. Co.*, 211 F. Supp. 2d 237, 247 (D. Me. 2002), *aff'd sub nom. Me. People's Alliance v. Mallinckrodt, Inc.*, 471 F.3d 277 (1st Cir. 2006); *Raymond K. Hoxsie Real Estate Trust v. Exxon Educ. Found.*, 81 F. Supp. 2d 359, 367 (D.R.I. 2000); *United States v. Valentine*, 856 F. Supp. 621, 626 (D. Wyo. 1994).

[18] *Me. People's Alliance v. Holtrachem Mfg. Co.*, 211 F. Supp. 2d 237, 247 (D. Me. 2002), *aff'd sub nom. Me. People's Alliance v. Mallinckrodt, Inc.*, 471 F.3d 277 (1st Cir. 2006).

[19] *United States v. Valentine*, 856 F. Supp. 621, 627 (D. Wyo. 1994).

[20] *Ethyl Corp. v. EPA*, 541 F.2d 1, 28 (D.C. Cir.) (en banc), *cert denied*, 426 U.S. 941 (1976).

[21] *United States v. Vertac Chem. Corp.*, 489 F. Supp. 870, 885 (E.D. Ark. 1980).

[22] *Interfaith Cmty. Org. v. Honeywell Int'l, Inc.*, 399 F.3d 248, 259 (3d Cir.), *cert. denied*, 545 U.S. 1129 (2005) (internal quotations omitted); *accord United States v. Union Corp.*, 259 F. Supp. 2d 356, 400 (E.D. Pa. 2003); *Me. People's Alliance v. Holtrachem Mfg. Co.*, 211 F. Supp. 2d 237, 247 (D. Me. 2002), *aff'd sub nom. Me. People's Alliance v. Mallinckrodt, Inc.*, 471 F.3d 277 (1st Cir. 2006) *Aiello v. Town of Brookhaven*, 136 F. Supp. 2d 81, 115 (E.D.N.Y. 2001); *Raymond K. Hoxsie Real Estate Trust v. Exxon*

Given the facts set forth in Part II of the Order, the Department's conclusion that the past and current handling, treatment, storage, or disposal of hazardous waste or solid waste at the Facility may present an imminent and substantial endangerment to health or the environment within the meaning of section 74-4-13 of the HWA is wholly consistent with the broad EPA and judicial interpretation of the identical language in section 7003 of RCRA.

Order Modification: None.

10. Comment: The commenters assert that EPA has designated the Facility as having "brought human exposure under control." The commenters imply that EPA's listing is inconsistent with the Department's endangerment finding.

Response: The Department disagrees with this comment. EPA designated the Facility as having "human exposures controlled" under the Government Performance and Results Act (GPRA) in 2001. However, the designation was based on incomplete information. The designation has been reversed since the Department released the draft Order for public comment.

Since 2001, conditions at the site have changed and several new areas of contamination have been discovered. The Hammond Ditch was lined with concrete during 2002. The lining of the irrigation ditch significantly reduced water leakage, which eliminated the hydraulic barrier that served to contain dissolved- and separate-phase hydrocarbons allowing, migration off site toward the San Juan River and the gravel operation located west of the refinery. The off-site contamination was first detected in monitoring well MW-47. Active discharges of hydrocarbons to two small tributaries of the San Juan River located on the north side of the refinery were discovered during a site visit by the Department and the OCD on August 11, 2004. Hydrocarbon stained soil and dead vegetation were observed and the contamination had migrated down the drainages to the San Juan River (See OCD Emergency Action Directive (Aug. 13, 2006) and San Juan Refinery, *OCD Discharge Plan Application* (July 2005)). Monitoring wells MW-48 and MW-49 were installed at the River Terrace Sheet Pile Area, on both the refinery side and river side of the sheet pile barrier, respectively. Benzene, ethylbenzene, and xylenes levels exceeded the EPA Maximum Contaminant Level (MCL) and Water Quality Control Commission (WQCC) standard in MW-48 between January and November 2005 and the standards for benzene were exceeded in MW-49 between February and December 2005, with the exception of June. The River Terrace Area groundwater is hydraulically connected to the San Juan River. Consequently, the GPRA designation has been changed for "human exposures controlled" from a "yes" to a "no" status as of November 29, 2006.

Educ. Found., 81 F. Supp. 2d 359, 366 (D.R.I. 2000); *Wilson v. Amoco Corp.*, 989 F. Supp. 1159, 1174 (D. Wyo. 1998); *United States v. Valentine*, 856 F. Supp. 621, 626 (D. Wyo. 1994).

[23] EPA, Guidance on the Use of Section 7003 of RCRA, at 11 (Oct. 1997).

Furthermore, the GPRA designation is based solely on current land and groundwater conditions. It does not take potential future land or groundwater uses into consideration. Nor does the designation include exposure to ecological receptors. Yet the Department's determination that hazardous and solid waste at the Facility may present an imminent and substantial endangerment to health or the environment is based on the *potential* for harm to human health as explained in response to **Comment #9**. The Department's endangerment determination is also based on harm to the environment. The words "health" and "the environment" are separated in section 74-4-13 of the HWA, as in section 7003 of RCRA, by the disjunctive "or," signifying that an endangerment to the environment alone is sufficient grounds for an endangerment finding.[24] The environment includes soil and groundwater.[25] It also includes surface water streams, such as the San Juan River.[26] EPA's designation, however, made no mention of the environment or environmental exposure.

Finally, the GPRA form on which EPA made the 2001 designation expressly states: "The Human Exposures EI is a Qualitative Screening of exposures and the determinations within this document should not be used as the sole basis for restricting the scope of more detailed (e.g., site-specific) assessments of risk." Thus, EPA cautions that the GPRA determination should not be used as the basis for cleanup decisions.

Order Modification: None.

11. Comment: The commenters argue that the Department's finding of an imminent and substantial endangerment cannot be based on "non-hazardous" solid waste under New Mexico law. The commenters' maintain that the Department is attempting to assert jurisdiction over solid waste "in a way prohibited by at least three other New Mexico statutes." The commenters cite, first, the New Mexico Solid Waste Act, section 74-9-3(N), which defines the term "solid waste" to exclude wastes associated with the refinement of crude oil. Second, the commenters cite the New Mexico Oil and Gas Act, section 70-2-12(B), which authorizes the Oil Conservation Division of the Energy, Minerals and Natural Resources Department to regulate "nondomestic wastes" at oil refineries. Third, the commenters cite the New Mexico Water Quality Act, section 74-6-4(E), which authorizes the Water Quality Control Commission to assign responsibility for implementation of the Act to constituent agencies, such as the Energy Minerals and Natural Resources Department. The commenters' postulate that these statutes, "when read together," demonstrate that the New Mexico Legislature intended the Oil Conservation Division to have exclusive jurisdiction over the regulation of wastes from oil refineries.

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[24] *United States v. Conservation Chem. Co.*, 619 F. Supp. 162, 175, 192 (W.D. Mo. 1985).

[25] *E.g.*, *Raymond K. Hoxsie Real Estate Trust v. Exxon Educ. Found.*, 81 F. Supp. 2d 359, 367 (D.R.I. 2000*); Fairway Shoppes Joint Venture v. Dryclean U.S.A. of Fla., Inc.*, 27 Envtl. L. Rep. (ELI) 21,069, 21,072, 21,073 (S.D. Fla. Aug. 2, 1996); *Lincoln Props., Ltd. v. Higgins*, 36 Env't Rep. Cas. (BNA) 1228, 1240 (E.D. Cal. 1993).

[26] *Interfaith Cmty. Org. v. Honeywell Int'l, Inc.*, 399 F.3d 248, 263 (3d Cir.), *cert. denied*, 545 U.S. 1129 (2005).

Response: The Department disagrees with this comment. None of the statutes that the commenters cite contain any prohibitions, express or implied, on the Department use of section 74-4-13 of the HWA to address pollution at petroleum refineries, including solid waste as defined in the HWA.

First, the definition of "solid waste" in the Solid Waste Act is entirely irrelevant to an action under the HWA, as the HWA itself has a definition of "solid waste." Section 74-4-3(M) of the HWA defines "solid waste" to mean:

> [A]ny garbage, refuse, sludge from a waste treatment plant, water supply treatment plant or air pollution control facility and other discarded material, including solid, liquid, semisolid or contained gaseous material resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include solid or dissolved materials in domestic sewage or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under Section 402 of the federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear or byproduct material as defined by the federal Atomic Energy Act of 1954, as amended (68 Stat. 923).

Thus, the HWA definition of "solid waste" includes no exemption for wastes associated with the refinement of crude oil. It should be obvious that the definition of "solid waste" in the HWA, not the definition in the Solid Waste Act, is applicable to an action brought under the HWA.

Second, nothing in the Oil and Gas Act limits the Environment Department's authority to require cleanup of pollution resulting from solid waste at petroleum refineries, nor can such a limitation be implied. The Oil and Gas Act merely authorizes the Oil Conservation Division to regulate "nondomestic wastes" from petroleum refining. That authority is not exclusive. The Oil and Gas Act does not make the distinction between "hazardous" and "nonhazardous" solid wastes that the commenters seem to attribute to it.[27]

Third, nothing in the Water Quality Act expressly or implicitly limits the Environment Department's authority to require cleanup of solid wastes at petroleum refineries. While it is true that the OCD implements the Water Quality Act at petroleum refineries, it is

[27] Giant apparently concedes that the Department has the authority to regulate hazardous waste from petroleum refineries; it acknowledges in its comments that it generates and treats characteristic hazardous waste that is toxic for benzene ("D008") under the Hazardous Waste Management Regulations. Moreover, several wastes from petroleum refining ("K048"-"K052" and "K199"-"K172") are specifically listed as hazardous wastes in the regulations, 40 C.F.R. § 261.32 (incorporated by 20.4.1.200 NMCA). These wastes, too, are "nondomestic wastes resulting from . . . the refinement of crude oil" under the Oil and Gas Act. Yet the Oil Conservation Division clearly does not have exclusive jurisdiction over these wastes. In this respect, the commenters' argument would prove too much.

also true that the Department implements the HWA at petroleum refineries. These are two separate statutory authorities. If anything, the HWA authority is the preferred authority. The WQCC Regulations, promulgated pursuant to the Water Quality Act, exempts from the requirements to abate water pollution those sites at which water pollution is being cleaned up by EPA under RCRA or by the Department under the Hazardous Waste Management Regulations. [20.6.2.4105.A(2) and (3) NMAC] Conversely, neither the HWA nor the Hazardous Waste Management Regulations contains any exemption for water pollution that is being abated under the Water Quality Act.

Furthermore, the commenters' restrictive view of the Department's authority under the HWA would result in a less stringent implementation of the New Mexico program than of the federal program. There is no limitation on EPA's authority under section 7003 of RCRA analogous to the restriction the commenters would write into the Department's authority under section 74-4-13 of the HWA. Indeed, EPA guidance on section 7003 specifically mentions the applicability of that section to releases of petroleum.[28] EPA and citizen plaintiffs have successfully used imminent hazard authority to address pollution from petroleum wastes at petroleum processing and petroleum refining facilities.[29]

The commenters' argument that these three statutes prohibit the Department from addressing an imminent hazard resulting from releases of solid waste, as defined in the HWA, at petroleum refineries is inconsistent with the plain language of those statutes, regardless whether they are "read together" or in isolation. The commenters' argument is wholly without merit.

Order Modification: None.

E. FEDERAL PREEMPTION

12. Comment: The commenters argue that the EPA 1992 Administrative Order on Consent preempts the Department from requiring corrective action at the Facility.

Response: The Department disagrees with the commenters' analysis of preemption doctrine. Nevertheless, the Department agrees that it would be awkward and inappropriate for both EPA and the State to require cleanup of the Facility under two separate, albeit consistent, enforcement documents. In 1996, the Department received authorization to implement corrective action under the State program in lieu of the federal program. [61 Fed. Reg. 2450 (Jan. 2, 1996)]. Consequently, as it began preparing the draft Order, the Department had several discussions with EPA on the transfer of lead authority over cleanup of the Facility. In a letter dated November 29, 2006, EPA stated that it intended to withdraw the 1992 Administrative Order on Consent

[28] EPA, Guidance on the Use of Section 7003 of RCRA, at 6 (Oct. 1997).

[29] *E.g.*, *United States v. Valentine*, 856 F. Supp. 621 (D. Wyo. 1994); *Wilson v. Amoco Oil Co.*, 989 F. Supp. 1159 (D. Wyo. 1998) (brought under the RCRA citizen suit provision, section 7002(a)(1)(B), which authorizes "any person" to bring an action to address an imminent and substantial endangerment).

as soon as the Department issues the final Order, provided that it contains adequate, enforceable corrective action requirements. The Department expects EPA to take that action today. The preemption issue is therefore moot.

Order Modification: None.

F. DISPUTE RESOLUTION

13. Comment: The commenters state that the Order imposes "numerous requirements on Respondents that are subject to interpretation," and additional "unspecified requirements." The commenters request that a dispute resolution provision be added to the Order.

Response: A dispute resolution provision is not usually included in a unilateral order. Nevertheless, the Department believes that the commenters request for a dispute resolution provision is reasonable. The terms of the dispute resolution provision have been discussed with Giant, and the Department has drafted the provision based, in part, on that discussion.

Order Modification: The Order has been modified to add a dispute resolution provision to the final Order (Section III.R).

G. CORRECTIVE ACTION AND IMMINENT HAZARD AUTHORITY

14. Comment: The commenters state that the hazardous waste regulations under the HWA must be "equivalent to and no more stringent than federal regulations" adopted by EPA under RCRA, citing section 74-4-4(A) of the HWA.

Response: The Department agrees with this comment. The Hazardous Waste Management Regulations adopted under the HWA are, for the most part, identical to the federal regulations adopted under RCRA. However, the Hazardous Waste Management Regulations do not govern an action under section 74-4-13 of the HWA, much as the RCRA regulations do not govern an action under section 7003 of RCRA. This issue is discussed in more detail in response to **Comment #15**.

Order Modification: None.

15. Comment: The commenters maintain that corrective action authority is limited to addressing releases of "hazardous waste" and "hazardous constituents," as defined by the regulations, from "solid waste management units" or "SWMU's" at the Facility. They further maintain that RCRA corrective action does not address areas of a facility that are not solid waste management units, nor does it address the wide universe of all potential pollutants at a facility.

Response: The Department disagrees with these comments for a multitude of reasons.

First, corrective action under RCRA and under the HWA, is not limited to addressing releases of "hazardous waste" as defined in the regulations. Instead, it is the *statutory* definition of "hazardous waste" that applies to corrective action. Section 1004(5) of RCRA[30] defines "hazardous waste" to mean:

> [A] solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may – (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

Likewise, section 74-4-3(I) of the HWA defines "hazardous waste" to mean:

> [A]ny solid waste or combination of solid wastes which because of their quantity, concentration or physical, chemical or infectious characteristics may: (1) cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed. "Hazardous waste" does not include any of the following, until the [Environmental Improvement B]oard determines that they are subject to Subtitle C of the federal Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. 6901 et seq.: drilling fluids, produced waters and other wastes associated with the exploration, development or production of crude oil or natural gas or geothermal energy, any fly ash waste, bottom ash waste, slag waste, flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels, solid waste from the extraction, beneficiation or processing of ores and minerals, including phosphate rock and overburden from the mining of uranium ore or cement kiln dust waste.

The term "hazardous waste" as defined in the statutes is not limited to the wastes covered by the regulations, namely, those wastes listed under section 20.4.1.200 NMAC (incorporating 40 CFR part 261, subpart D), or those wastes exhibiting one of the characteristics of hazardous waste identified in section 20.4.1.200 NMAC (incorporating 40 CFR part 261, subpart C). The statutory definition of "hazardous waste" is broader than the regulatory definition. As EPA states in the preamble to its proposed[31] corrective action rule:

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[30] 42 U.S.C. § 6903(5).

[31] Although EPA never issued the proposed corrective action rule as final regulations, it uses the proposed rule and the preamble to the proposed rule as guidance. 61 Fed. Reg. 19432, 19434 (May 1, 1996).

> Section 3004(u) [of RCRA] requires corrective action for releases of "hazardous wastes or constituents." The Agency believes that use of the term "hazardous waste" denotes "hazardous waste" as defined in section 1004(5) of RCRA. Accordingly, today's proposed rule repeats the statutory definition of "hazardous waste" found in that section. The term "hazardous waste" is distinguished from "hazardous waste listed and identified," which is used elsewhere in the statute to denote that subset of hazardous waste specifically listed and identified by the Agency pursuant to section 3001 of RCRA. Thus, the remedial authority under section 3004(u) is not limited to releases of wastes specifically listed in 40 CFR part 261 or identified pursuant to the characteristic tests found in that section. Rather, it extends potentially to any substance meeting the statutory definition.[32]

Six years later, EPA restated this interpretation in a notice of proposed rulemaking: "EPA interprets the term 'hazardous waste,' as used in RCRA section 3004(u) to include all wastes that are hazardous within the statutory definition in RCRA section 3004(5), not just those that are either listed or identified by EPA pursuant to RCRA section 3001."[33] The commenters therefore are not correct in asserting that corrective action under RCRA and the HWA is limited to "hazardous waste" as defined in the regulations.

Second, corrective action under RCRA, and under the HWA, is not limited to addressing "hazardous constituents" as defined in the regulations, namely, hazardous constituents listed in 40 CFR part 261, appendix VIII (incorporated by 20.4.1.500 NMAC). As used in the RCRA corrective action authority, section 3004(u) of RCRA, the term "hazardous constituents" also includes those constituents listed in 40 CFR part 264, appendix IX (incorporated by 20.4.1.200 NMAC). EPA addresses this issue in its proposed corrective action rule:

> The term "hazardous constituent" used in section 3004(u) means those constituents found in appendix VIII to 40 CFR part 261. . . . In addition, the Agency proposes to include within the definition those constituents identified in appendix IX to 40 CFR part 264.[34]

Third, corrective action under RCRA, and under the HWA, is not limited to addressing releases from SWMUs. Again, EPA addresses this issue in its corrective action guidance:

> The definition of a SWMU is often a point of disagreement when corrective action permits or orders are issued. Facility owners/operators and representatives of the regulated community often argue that Congress

[32] 55 Fed. Reg. 30798, 30809 (July 27, 1990).

[33] 61 Fed. Reg. 19432, 19443 (May 1, 1996).

[34] 55 Fed. Reg. 30798, 30809 (July 27, 1990).

> intended the RCRA corrective action program to be focused on waste management units (i.e., SWMU) and that non-waste management releases (e.g., spills) should be addressed by other cleanup programs or authorities. EPA notes that authority exists for requiring corrective action for releases that are not attributable to SWMUs. Given the legislative history of RCRA section 3004(u), which emphasizes that RCRA facilities should be adequately cleaned up, in part to prevent creation of new Superfund sites, EPA believes that corrective action authorities can be used to address all unacceptable risks to human health or the environment from RCRA facilities. In the permitting context, remediation of non-SWMU related releases may be required under the "omnibus" authority (see 40 CFR 270.32(b)(2)) which allows EPA to impose such permit conditions as are necessary to protect human health and the environment. In other contexts, orders under RCRA sections 3008(h) or 7003 may require remedial action to address releases regardless whether a SWMU is present. Therefore, extended debate or litigation over a particular SWMU designation will in many cases be unproductive for all parties and, as a general principle, EPA discourages debate on these issues, believing that discussions should more properly focus on whether there has been a release that requires remediation.
>
> To reflect a more holistic approach, permits and orders often use the term "area of concern" to refer to releases which warrant investigation or remediation under the authorities discussed above, regardless whether they are associated with a specific SWMU as the term is currently used. For example, when an overseeing agency believes one-time spills of hazardous waste or hazardous constituents have not been adequately cleaned up, these releases are often addressed as areas of concern.[35]

Fourth, and most importantly, the Order has not been issued exclusively using the Department's corrective action authorities. Rather, the Order has been issued primarily using the Department's imminent hazard authority. That authority is considerably broader.

Section 74-4-4.2(B) of the HWA provides that hazardous waste permits must require corrective action for all releases of hazardous waste or constituents from any solid waste management unit. This provision applies to permits; it does not authorize administrative orders. Section 74-4-10(E) of the HWA authorizes the Department to issue an administrative order requiring corrective action for a release of hazardous waste from a facility that has "interim status," that is, a facility that is authorized to treat, store, or dispose of hazardous waste without a permit pending EPA or the Department's processing of its permit application. Based on a review of these comments, and given that the Facility includes an interim status unit, the Department has decided to use its

[35] 61 Fed. Reg. 19432, 19443 (May 1, 1996).

authority under section 74-4-10(E) of the HWA, in addition to its authority under sections 74-4-10.1 and 74-4-13 of the HWA, as a part of the legal basis for the final Order.

Nevertheless, the Department is not issuing the Order, nor did it propose to issue the order, exclusively under corrective action authority. It is issuing the Order primarily under section 74-4-13 of the HWA, and under section 74-4-10.1 of the HWA. Section 74-4-13 authorizes the Department to issue an administrative order to address an imminent and substantial endangerment resulting from the handling, storage, treatment, transportation, or disposal of any hazardous waste or any solid waste.

As with corrective action, the broader statutory definition of "hazardous waste," not the narrower regulatory definition, applies to actions under section 74-4-13 of the HWA, as well as actions under section 7003 of RCRA. EPA regulations, incorporated into the State Hazardous Waste Management Regulations, expressly state that the regulatory definitions identify "*only some* of the materials which are solid wastes and hazardous wastes under section . . . 7003 of RCRA," and that the statutory definition applies in such cases.[36] EPA also addresses this question in its guidance on the use of section 7003: "It is EPA's position . . . that that the broad statutory definition[], not the regulatory definition[] govern[s] in Section 7003 actions."[37] Several courts have likewise recognized the distinction between the statutory and the regulatory definition of "hazardous waste" and followed EPA's interpretation.[38]

Moreover, section 74-4-13 of the HWA – like section 7003 of RCRA – applies not only to "hazardous waste" as defined in the statutes, but also to "solid waste" as defined in the statutes. As EPA notes in its guidance on section 7003, "The broadest category of RCRA waste is 'solid waste' as defined in RCRA § 1004(27)."[39] Thus, the Department's authority under section 74-4-13 of the HWA covers "the wide universe of all potential pollutants" at the Facility.

The Department notes that although the Order is based primarily on imminent hazard authority, it uses terminology and follows procedures taken from the RCRA and HWA corrective action programs. These terms are familiar both to the Department's staff and to Giant's environmental staff. The corrective action programs, moreover, provide useful

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[36] 20.4.1.200 NMAC (incorporating 40 C.F.R. § 261.1(b)(2)) (emphasis added).

[37] EPA, Guidance on the Use of Section 7003 of RCRA, at 14 (Oct. 1997).

[38] *United States v. Valentine*, 856 F. Supp. 621, 627 (D. Wyo. 1994) ("Section 7003 is . . . is governed by the statutory definitions of hazardous waste"); *Sierra Club v. U.S. Dep't of Energy*, 734 F. Supp. 946, 948 (D. Colo. 1990) ("RCRA has statutory and regulatory definitions of 'hazardous waste,'" and "[t]he broad statutory definition primarily governs actions to abate imminent and substantial risks to the public and environment"); *Military Toxics Project v. EPA*, 146 F.3d 948, 951 (D.C. Cir. 1998) ("Although EPA has narrowed the definition of solid waste for purposes of [the regulatory program], the statute itself still provides the relevant definition for purposes of [section 7003]."); *Conn. Coastal Fishermen's Ass'n v. Remington Arms Co.*, 989 F.2d 1305, 1314-15 (2d Cir 1993) ("the statutory definition of solid waste . . . applies to imminent hazard lawsuits brought by the United States under § 7003").

[39] EPA, Guidance on the Use of Section 7003 of RCRA, at 15 (Oct. 1997).

procedures for investigation, selection of remedial actions, public notice and comment, and implementation of remedial actions, among other things. On the other hand, no procedures of any sort have been adopted specifically to apply to imminent hazard actions. Therefore, the Department has found it useful to follow the corrective action procedures, although they have been streamlined in certain respects. In following these procedures, however, the Department has not in any way limited its authority under the imminent hazard provisions. The primary legal basis for the Order is imminent hazard authority.[40]

Order Modification: The Department has added several findings of fact and conclusions of law to support the use of this authority under section 74-4-10(E) of the HWA.

H. SPECIFIC COMMENTS: INTRODUCTION

16. Comment: (Page 1, Section I). The commenters quote the fourth paragraph of Section I (Introduction) of the Order, which states that the requirements of the Order apply to "all other places of the Facility where contaminants may have come to be located" and to "and to all contaminants that have migrated from the Facility beyond the Facility boundary." The commenters aver that these statements are "inconsistent with the jurisdictional limits of RCRA corrective action."

Response: The Department disagrees with this comment. As noted in response to **Comment #15**, the Order is not limited to corrective action authority. Moreover, even corrective action authority under the HWA applies to hazardous waste or constituents that have migrated off-site. Both section 74-4-4(A)(5)(h) and section 74-4-10(E) expressly authorize corrective action "beyond the facility boundary."

Order Modification: None.

I. SPECIFIC COMMENTS: FINDINGS OF FACT

17. Comment: (Page 2, Section II.A.2). The commenters note that the Respondents named in the Order are San Juan Refining Company and Giant Industries Arizona, Inc. They further note that "Under RCRA, the owner or operator of the Facility may be required to take certain corrective actions under appropriate circumstances."

Response: The Department generally agrees with this comment. However, the Order is issued under the HWA, not RCRA. It is issued under imminent hazard authority, not corrective action authority. The point of the comment is not clear.

[40] Although the Order is issued and will be implemented primarily pursuant to imminent hazard authority, such implementation will satisfy the corrective action requirements of the HWA and RCRA. *See* 20.4.1.1000 NMAC (incorporating 40 C.F.R. part 270.), which allows corrective action requirements to be met under an "enforceable document" issued under separate authority.

Order Modification: None.

18. Comment: (Page 4, ¶ 12). The commenters state that the first sentence of paragraph 12 indicates that hazardous wastes from the Facility are disposed of off-site, which is correct for some of the D018 wastewater. The commenters also state that the second sentence is incorrect in finding that other hazardous wastes are treated on-site. The commenters assert that the only hazardous waste treated on-site is D018 wastewater.

Response: The Department partially agrees with this comment. If the aerators have ever been out of operation or if there has ever been a cessation of flow in the aeration lagoons for any other reason, F037 and F038 waste would have been generated.

Order Modification: The Order has been modified to delete the reference to F037 and F038 waste in Paragraph 12 on Page 4.

19. Comment: (Page 4, ¶ 13). The commenters state that the first sentence in Paragraph 13 "just generally assumes that process areas, tanks and piping, loading and unloading areas, waste storage areas automatically result in SWMUs and HWMUs and hazardous constituents from those entering the environment." The commenters state that these units do not meet the definition of "SWMU" because "there must be some evidence of routine and systematic release." The commenters also state that many of these areas are regulated by other statutory programs, such as the Clean Water Act (CWA), and are exempt under RCRA.

The commenters also state that the second sentence of Paragraph 13 "incorrectly lists a number of chemicals as 'hazardous constituents.'" The commenters note that manganese, copper, fluoride, chloride, nitrate, sulfate, zinc, ethylbenzene, xylene, and the categories of Volatile Organic Compounds (VOC's), Semi-volatile Organic Compounds (SVOC's), Polycyclic Aromatic Hydrocarbons (PAH's), Separate Phase Hydrocarbons (SPH), Diesel Range Organics (DRO), Gasoline Range Organics (GRO), and Oil Range Organics (ORO) are not listed in appendix VIII of 40 CFR part 261.

Response: The Department does not agree with the comment in the first sentence of Paragraph 13. The Department does not "assume" that these areas and facilities "automatically" result in the release of hazardous constituents. The Department is making a specific finding, based on evidence in the administrative record, that there have been releases of hazardous constituents from these areas at the Facility. As documented in the 2003, 2004, and 2005 Groundwater Monitoring Reports, recovery wells RW-9, RW-18, RW-22, RW-28, RW-23, RW-42, RW-43, and monitoring wells MW-20, MW-40, and MW-41 are all located in or near the process area and have all contained SPH since or before 2003, with the exception of RW-18 and RW-22 in 2005. Former monitoring wells RW-9, RW-28, RW-42, and RW-43 were converted to recovery wells to remove separate phase hydrocarbons floating on groundwater in the process area. The presence of SPH is an indication that routine and systematic releases from these process units have occurred.

Moreover, it is irrelevant whether these areas meet the definition of "SWMU." Corrective action authority under the HWA, and under RCRA, is not limited to releases from solid waste management units, as explained in response to **Comment #15**. Corrective action can also address releases from an "area of concern" (AOC) that is not a systematic or routine disposal area. More importantly, the Order is issued primarily under imminent hazard authority which is not limited to releases from solid waste management units.

As to the comment in the second sentence, the Department partially agrees with this comment. The Department agrees that many of these constituents (those identified in the comment) are not listed in appendix VIII of 40 CFR part 261. However, some of these constituents – copper, ethylbenzene, xylene, and zinc – are listed in appendix IX of 40 CFR part 264. For purposes of corrective action, EPA interprets the term "hazardous constituent" to include those constituents listed in appendix IX, as explained in response to **Comment #15**. The Department also agrees that the categories of constituents (such as VOC's) are not hazardous constituents per se, although all of them include or contain hazardous constituents.

The Department does not agree that many of these areas are regulated under other programs, such as the Clean Water Act, or that they are exempt under RCRA. The Department addresses the Clean Water Act issue in detail in response to **Comment #27**. The Respondents do not identify any other "statutory program" to which these areas are subject that give rise to a RCRA exemption.

Order Modification: The Order has been modified to refer to manganese, copper, fluoride, chloride, nitrate, sulfate, zinc, ethylbenzene, xylene, and the categories of Volatile Organic Compounds (VOC's), Semi-volatile Organic Compounds (SVOC's), Polycyclic Aromatic Hydrocarbons (PAH's), Separate Phase Hydrocarbons (SPH), Diesel Range Organics (DRO), Gasoline Range Organics (GRO), and Oil Range Organics (ORO) as contaminants instead as hazardous constituents.

20. Comment: (Page 5, ¶ 21). The commenters note that the third sentence of Paragraph 21 states that wastewater at petroleum refineries "typically contains" listed hazardous waste (F037 and (F038) and characteristic hazardous waste (waste code D018). The commenters point out that many wastewaters from the Facility are neither listed nor characteristic hazardous waste. The commenters also state that the wastes F037 and F038 are sludges and not wastewater.

Response: The Department agrees that wastewater from petroleum refineries is not necessarily hazardous under the regulations, and that "typically" is perhaps not accurate.

The Department based this finding on a document in the administrative record, prepared by the Facility that describes a leak of refinery "process wastewater." Use of the term "process wastewater," rather than, for example, non-contact cooling water or non-process storm water, strongly suggests a wastewater that would most likely contain benzene at toxic levels (D018). Moreover, under the regulations at 40 CFR 261.31(3)(i) and (ii)

(incorporated by 20.4.1.200 NMAC), "…sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement." The 10 barrels of process wastewater that were not recovered after the line break ceased lateral flow and likely contained F037 and F038 wastes generated when the lateral cessation of flow stopped.

Nevertheless, the record does not clearly support a conclusion that the process wastewater was hazardous waste.

Order Modification: Paragraph 21 in Section II.A.5 of the Order has been modified in to replace the word "typically" with the word "often." The Department has also changed the finding to specify "process wastewater."

21. Comment: (Page 5, ¶ 23). The commenters contend that Paragraph 23 is incorrect in stating that petroleum and petroleum products contain the hazardous constituents benzene, ethylbenzene, toluene, and xylenes. The commenters say that hazardous constituents must derive from wastes, and petroleum products are not wastes. The commenters further say that ethylbenzene and xylenes are not included in the list of hazardous constituents in appendix VIII of 40 CFR part 261.

Response: The Department agrees that "petroleum products" are not wastes -- unless they have been discarded. The reference to petroleum and petroleum products in Paragraph 23 should be viewed in the context of the preceding Paragraphs 14 through 22, which describe leaks and spills of petroleum and petroleum products at the Facility. Such leaked or spilled petroleum and petroleum products have been discarded and therefore are wastes, as explained in greater detail in response to **Comment #43**. The Department also agrees that ethylbenzene and xylenes are not listed in appendix VIII of 40 CFR part 261. However, they are listed in appendix IX of 40 CFR part 264. For purposes of corrective action, EPA interprets the term "hazardous constituent" to include those constituents listed in appendix IX, as explained in response to **Comment #15**. Consistent with EPA's interpretation, the definition of "hazardous waste constituent" in Section III.B of the Order includes any constituent listed in 40 CFR part 264, appendix IX.

Order Modification: None.

22. Comment: (Page 7, ¶ 31). The commenters state that contrary to the finding in Paragraph 31, monitoring wells MW-37 and MW-38 do not show elevated levels of lead contamination above State water quality standards.

Response: The Department agrees with this comment.

Order Modification: The Department has revised this finding in the final Order to state that the total lead concentrations in groundwater samples obtained from MW-37 and MW-38 exceeded the MCL for lead and has removed the reference to WQCC water quality standards.

23. Comment: (Page 7, ¶ 33). The commenters state that contrary to the finding in Paragraph 33, separate phase hydrocarbon was not detected in monitoring well MW-47 in May or August 2003.

Response: The Department agrees with this comment.

Order Modification: The Department has removed reference to MW-47 from this finding in the final Order.

24. Comment: (Page 8, ¶ 37) The commenters state that, contrary to the finding in Paragraph 37, methyl tertiary butyl ether (MBTE) is not a hazardous constituent, that it is "highly doubtful" that all wells indicate MBTE has moved off-site, and that MBTE is a "poor predictor" of the movement of other hydrocarbons. The commenters state that some of the listed wells do not exceed the EPA Region 6 screening level for MTBE.

Response: The Department largely disagrees with this comment. The Department does not allege in this finding that MBTE is a "hazardous constituent" listed in appendix VIII of 40 CFR part 261. Once released into the environment, however, MBTE is a "hazardous waste" and a "solid waste" as defined in the HWA and RCRA.

MTBE is a component of oxygenated reformulated gasoline and was also used as an octane enhancing fuel additive. MTBE is very soluble in water at 4.3% as compared to benzene at 0.18% and toluene at 0.05%. Because the sorption affinity in the soil matrix is low and resistance to abiotic and biological degradation is high, MTBE is persistent in the subsurface and tends to migrate more rapidly than benzene, which migrates more rapidly than the other BTEX compounds.[41] These properties also make MTBE a valuable tracer for detecting hydrocarbon plumes and migration pathways and directions.

Nevertheless, the Department agrees that not all the wells at the Facility show that MBTE has migrated off-site.

Order Modification: In response to this comment, the Department has revised Paragraph 37 in Section II.A.5 of the final Order to state that "Detections in wells in the southern and western portions of the refinery indicate migration of MTBE off-site."

25. Comment: (Page 9, ¶ 39). The commenters state that dissolved metals concentrations should be referenced, rather than the total metals concentrations referenced in Paragraph 39. The commenters assert that bioavailable (i.e., dissolved) metals would be the appropriate reference for human health or environmental concerns.

Response: The Department disagrees with this comment. The commenters, in emphasizing "bioavailability," incorrectly suggest that risk is not calculated based on total metals concentrations and that the only harmful exposure to metals is through the

[41] *Environmental Technology* (Jan./Feb. 1998).

dissolved phase. While this approach may be appropriate for calculating ecological risk for some aquatic organisms, it is not necessarily appropriate for risk evaluations. Total metal concentrations need to be considered. EPA's Risk Assessment Guidance for Superfund (RAGS) utilizes data from both filtered and unfiltered (which measure total and dissolved phase metals, respectively) samples to calculate human health risk. Likewise, the Department's *Guidance for Assessing Ecological Risks Posed by Chemicals: Screening-Level Ecological Risk Assessment* (2000), on page 21, states: "Ground water and surface water samples obtained for site characterization for inorganic constituents must be unfiltered. However, for the purposes of determining contaminant environmental transport and evaluation of potential risks to aquatic communities from surface water or groundwater discharging to surface water, analyses of dissolved concentrations are also required."

Order Modification: None.

26. Comment: (Page 9, ¶ 40). The commenters state that contrary to the finding in Paragraph 40, separate phase hydrocarbon was not measured in monitoring well MW-45 in August 2004, as it had been switched to emergency recovery well service.

Response: The Department agrees with this comment.

Order Modification: The Department has revised Paragraph 40 in Section II.A.5 of the final Order to remove reference to monitoring well MW-45 in the first sentence, and to add a second sentence indicating that separate phase hydrocarbon was detected in MW-45 during March 2004. Water/product levels were not measured in August 2005 because the product was being recovered from the well.

27. Comment: (Page 9, ¶¶ 41-43). The commenters state that Paragraphs 41 through 43 reference "Clean Water Act pollutants and the San Juan River." They further contend that "[d]ischarges of to a water of the U.S. are handled under the CWA program and are not the purview of RCRA corrective action." The commenters state that the Facility maintains a "[National Pollution Discharge Elimination System] NPDES[42] 'zero discharge' CWA system for its treated process wastewater." The commenters cite the exemptions from various RCRA regulations for wastewater treatment units. They apparently maintain that the wastewater treatment system at the Facility meets the definition of "wastewater treatment unit" in the RCRA regulations. They therefore maintain that the wastewater treatment system at the Facility is covered by these exemptions, and further that it is exempt from corrective action requirements.

Response: The Department disagrees with this comment. The exemptions for wastewater treatment units regulated under the Clean Water Act do not apply in this case for several obvious reasons.

[42] The reference is to the National Pollutant Discharge Elimination System under section 402 of the federal Clean Water Act, 33 U.S.C. § 1342.

First, the wastewater treatment system at the Facility does not qualify for the exemptions because it does not meet the definition of a "tank." The exemptions to which the commenters refer apply only to a "wastewater treatment unit" as defined in the RCRA regulations:

> *Wastewater treatment unit* means a devise which:
> (1) Is part of a wastewater treatment facility that is subject to regulation under either section 402 or 307(b) of the Clean Water Act; and
> (2) Receives and treats or stores an influent wastewater that is a hazardous waste as defined in § 261.3 of this chapter, or that generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in § 261.3 of this chapter, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in§ 261.3 of this Chapter; and
> (3) Meets the definition of tank or tank system in § 260.10 of this chapter.

40 CFR 260.10 (incorporated by 20.4.1.100 NMAC). Thus, to be a "wastewater treatment unit" and qualify for the exemption, the system must meet the definition of a "tank" or a "tank system" under the RCRA regulations:

> *Tank* means a stationary devise designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.
>
> *Tank system* means a hazardous waste storage or treatment tank and its associated ancillary equipment and containment systems.

40 CFR 260.10 (incorporated by 20.4.1.100 NMAC). The wastewater treatment system at the Facility clearly does not meet this definition. It is comprised, primarily, of a surface impoundment. A surface impoundment is constructed of earthen material, is without structural support, and by definition is not a tank. As EPA stated in the preamble to its proposed rule adding the definition of wastewater treatment unit, "This definition is not intended to include surface impoundments."[43]

Second, the wastewater treatment system at the Facility does not qualify for the exemption because it does not appear to be subject to regulation under the Clean Water Act. Under the first element of the definition of "wastewater treatment unit," set forth above, the system must be "subject to regulation under either section 402 or 307(b) of the Clean Water Act." Section 402 of the CWA[44] governs the NPDES permit program for discharges of pollutants into a water of the United States; and section 307(b) of the Clean

[43] 45 Fed. Reg. 76076, 76078 (Nov. 17, 1980).

[44] 33 U.S.C. § 1342.

Water Act[45] governs the pretreatment program for discharges of toxic pollutants into a publicly-owned treatment works ("POTW"). Treated effluent from the wastewater treatment system at the Facility is not discharged into a water of the United States – and the Facility does not have an NPDES permit – nor is it discharged into a POTW. Rather it is discharged into an injection well governed by the underground injection control (UIC) program in sections 1421 to 1426 of the Safe Drinking Water Act.[46] The wastewater treatment system therefore does not appear to be subject to the Clean Water Act.[47]

Third, the exemptions to which the commenters refer cover only the wastewater treatment unit itself; they do not cover wastes that may be released from the unit.[48] It therefore does not follow, as the commenters aver, that wastewater treatment units subject to these exemptions "are also corrective action exempt." While it is true that corrective action requirements apply only to permitted or interim status facilities, a permit may be required for other non-exempt active or inactive units at a facility. For example, corrective action may be required pursuant to a closure permit.[49] Such corrective action requirements would apply to releases of hazardous waste or hazardous constituents from the exempt unit, and to all other releases of hazardous waste or hazardous constituents at such a facility.

Finally, and most importantly, the exemptions to which the commenters refer do not cover an imminent hazard action under section 74-4-13 of the HWA (or under section 7003 of RCRA). The exemptions cover only the hazardous waste permitting requirements and the hazardous waste tank standards that would otherwise apply to the wastewater treatment unit under the RCRA regulations. The exemptions have no applicability to this proceeding.

Order Modification: None.

28. Comment: (Page 11, ¶ 51). The commenters state that contrary to the findings in Paragraph 51, only the South Aeration Lagoon (SAL), not the North Aeration Lagoon

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[45] 33 U.S.C. § 1317(b).

[46] 42 U.S.C. §§ 300h to 300h-5.

[47] The Department recognizes that under the Clean Water Act a wastewater treatment facility may be "subject to" section 402 if that section directly imposes a "zero discharge" requirement on the facility, although the facility might not be required to obtain an NPDES permit. The commenters imply that the wastewater treatment system at the Facility may be subject to such a direct requirement, but they provide no specific reference and no supporting documentation. The Department has not been able to identify any such direct requirement. Even if such a direct requirement exists, the exemptions do not apply for the other reasons explained in this response.

[48] *See* 40 C.F.R. §§ 264.1(g)(6), 265.1(c)(10), and 270.1(c)(2)(v).

[49] Section 74-4-4.1(B) of the HWA provides that all "[h]azardous waste permits issued after April 8, 1987 shall require corrective action for all releases of hazardous waste or constituents at *any* solid waste management unit at a treatment, storage or disposal facility seeking a permit under this chapter" (emphasis added).

(NAL), treats wastewater toxic for benzene (waste code D008); and that neither lagoon treats petroleum refinery oil/water/solids separation sludge (waste code F037) or petroleum refinery secondary (emulsified) oil/water/solids separation sludge (waste code F038). According to the commenters, after primary treatment and oil recovery at the Facility's API separator, process wastewaters promptly are placed into an aggressive biological treatment process in the SAL that prevents any formation of F037 or F038 waste. The commenters further state that "the North Aeration Lagoon needs to be dropped from the draft Order since it is clearly not a" hazardous waste management unit.

Response: The Department does not agree with the commenters' distinction between the North Aeration Lagoons and the South Aeration Lagoon. For regulatory purposes, the NAL and SAL is one unit. Page 4 of the 1996 Part A Permit Application only identifies one treatment unit TO2 (surface impoundment treatment) which contains three parts as described in Sections 6.0 and 6.1 of the 1996 Part B Application. Section 6.0 of the Part B Permit Application states "This Section presents a physical description of the surface impoundments and discusses design and operating parameters which are pertinent to the Part B Application." If only one aeration lagoon was used for treatment, then the Part B Application would not make reference to all three aeration lagoons. Section 2.13.2, page 2-12 of the 1996 Part B Permit Application states "[h]azardous wastewater is treated onsite in the surface impoundments….," indicating treatment occurs in all of the units. The Construction Quality Assurance Report Retrofit of Three Interim Status Surface Impoundments, dated September 23, 1994, Section 2.1 on page 5 states "[t]he initial rerouting of treatment system flow allowed cleanout of accumulated biomass in solids in Pond 1 prior to the initiation of retrofit activities. Bloomfield rerouted effluent flow from the API separator to Pond 2, bypassing Pond 1." Similar actions were conducted for the other two ponds indicating that each aeration lagoon has received and treated hazardous waste. Finally, the Department's Annual Unit Audit or Annual Fees lists the surface impoundments as one unit and Giant has never appealed this designation. Giant has not demonstrated that, through time, wastewater characteristically hazardous for benzene has never been discharged from the SAL to the NAL. Giant also has not demonstrated that the aeration units in any of the lagoons have operated continuously since the start of operation in April 1991 or even since the surface impoundment system was retrofitted in 1994. Any shutdown due to failure of aerators or for maintenance would result in cessation of treatment in the impoundment where the aeration system was being repaired. In addition, Giant has not provided chemical analytical data from periodic sampling of the discharges from the south impoundment to the north impoundments over the operating life of the surface impoundments treatment system that demonstrates breakthrough has not occurred within the treatment system. Further, the Department requires that redundancy be built into the treatment system to ensure that hazardous waste will not be discharged to the Class I injection well, which is prohibited by the OCD Discharge Plan. The Department assumes that redundancy also will be included in the design of the benzene stripping system required to be installed under the EPA Compliance Order and that periodic monitoring will be required to verify the system's effectiveness. If this is not the case, the Department may require additional air stripping capability to be added to the benzene stripping system required by EPA's Compliance

Order and that periodic sampling be conducted to demonstrate that the system functions as intended.

Order Modification: In response to this comment, the Department has removed the reference to treatment of F037 and F038 waste in the aeration lagoons from Paragraph 51 of Section II.A.6.a of the final Order. The Department has also revised the final Order to state that F037/F038 waste will be generated if the aeration system becomes non operational and there is a cessation of lateral particle movement in any part of the wastewater treatment.

29. Comment: (Pages 11-15, ¶¶ 52-62). The commenters state that the Department should determine that no further action should be necessary for SWMU's Nos. 2 through 12, which are referenced in Paragraphs 52-62.

Response: The Department has not made any determination that no further action is necessary for these solid waste management units. The Administrative Record does not include sufficient evidence for such a determination. Nor has Giant submitted to the Department a petition for such a determination (which would need to be supported with sufficient evidence). Such a petition would be the appropriate procedure for Giant to request a determination that no further action is necessary.

Order Modification: None.

30. Comment: (Page 15, ¶ 62). The commenters state that, contrary to the findings in Paragraph 62, F037 and F038 waste is not contained in the effluent from the API separator.

Response: F037 waste is likely generated in sumps and catch basins that are part of the refinery waste water collection system upstream of the API separator. However, the Department agrees that the administrative record does not contain clear evidence of such generation.

Order Modification: The Department has deleted the reference to F037 and F038 waste from Section II.A.6.1 (Paragraph 62) of the final Order; however since the wastewater collection system handles both D018 waste and likely F037 waste, the wastewater collection system will be added to the list in Order Section IV.B.3 as SWMU 27.

31. Comment: (Page 15, ¶ 63). The commenters state that, contrary to the findings in Paragraph 63, the referenced process area is not a SWMU because a "documented spill" is not sufficient to constitute a SWMU.

Response: There is substantial petroleum contamination beneath the Process Area, and it is unlikely that that all of the contamination originates from one or two isolated spills, or from another portion of the Facility. The results of groundwater monitoring and sampling have historically reported both dissolved- and separate-phase hydrocarbon

contamination indicative of routine releases in the Process Area. The designation has no practical effect on the cleanup requirements, however.

Order Modification: None.

32. Comment: (Page 15, ¶ 64). The commenters state that, contrary to the findings in Paragraph 64, the referenced spill is insufficient to designate Tanks 3, 4, and 5 as a SWMU.

Response: The Department disagrees with this comment. Recovery wells surrounding Tanks 3, 4, and 5, include wells RW-9, RW-18, RW-22, RW-23, which have been used to recover separate phase hydrocarbons from the subsurface since 2003; although no product was detected in RW-18 and RW-22 in 2005. This continuous recovery of hydrocarbons is evidence of an ongoing (routine and systematic) release to the environment. Giant would be able to detect a one-time spill resulting from a major failure of a tank containment system or a pipe line break. The Department therefore continues to designate the tank area as a SWMU. However, whether the area is designated as a SWMU or an AOC has no practical effect on the cleanup requirements.

Order Modification: None.

33. Comment: (Page 16, ¶ 68). The commenters state that the warehouse yard should not be designated as a SWMU given the Department's findings in Paragraph 68 that the yard "was not used for storage and there is no knowledge that any of the drums have leaked." According to the commenters, the facts might justify designating the site as an AOC instead, but it does not appear to meet the SWMU criteria.

Response: The Warehouse Yard is part of the original list of SWMUs identified in the 1987 RFA and is part of SWMU No. 2 Former Drum Storage Area. Because the warehouse yard was in a separate area from the Drum Storage Areas/N. Bone Yard, NMED separated the units. This separation is intended to facilitate the Respondent's ability to address investigation and cleanup of the SWMUs by allowing the Respondent to address the units on an individual basis. NMED does not have a No Further Action determination on record for the Warehouse Yard.

Evidence in the administrative record indicates that the Warehouse Yard was used for the storage of solvents and oils used in the refinery processes since the 1980s. Storage of these chemicals over this period of time may have resulted in releases of contaminants into the environment.

Monitoring data shows that contaminants have been released into the environment at or near the Warehouse Yard. The *RCRA Facility Investigation/Corrective Measure Study Report*, dated November 8, 1994, Section 3, page 25-26, contains the following information. RW-1 is located in the Warehouse Yard and was sampled during both events of the Phase III RCRA Facility Investigation. The May sampling event detected VOCs concentrations of benzene (2,800 µg/L), ethylbenzene (80 µg/L), and m,p-xylene

(40 µg/L). The following SVOC constituents were also detected: Naphthalene, 2-methylnapthalene, chrysene, and phenanthrene. During the August sampling event, benzene was the only targeted VOC detected at a concentration of 3,300 µg/L and detected SVOCs included Naphthalene, 2-methylnapthalene and bis-(2-ethylhexyl)phthalate. Whether the Warehouse Yard is designated as a SWMU or an AOC has no practical effect on the cleanup requirements.

Order Modification: The Department has added this information to the finding in Section II.A.6.r of the final Order (Paragraph 68).

34. Comment: (Page 17, ¶ 75). The commenters state that the only concern expressed in the findings in Paragraph 75 is the "close proximity" of the referenced warehouse and storage area to other areas, and that this concern is not sufficient to designate it as an AOC.

Response: The Auxiliary Warehouse and 90-Day Storage Area are part of the building that contains the Heat Exchanger Bundle Cleaning Area. More importantly, this area is a former truck terminal where loading, unloading and likely temporary storage, vehicle cleaning and maintenance occurred. It is a potential source of historical releases of contaminants and therefore an AOC.

Order Modification: None.

35. Comment: (Page 18, ¶¶ 77-84). The commenters assert that the discharges into the San Juan River, referenced in Paragraphs 77 to 84, are "regulated under the Clean Water Act and should be exempt under RCRA." The commenters further claim that "the appropriate pathway for RCRA is covered in paragraph 85."

Response: The Department does not agree with this comment. Nothing in the HWA or RCRA exempts releases of wastes into surface waters, even if the surface water is a water of the United States.

The HWA, like RCRA, applies to releases of hazardous waste and hazardous constituents (and solid waste) into all media, including surface water. The HWA and RCRA provide for corrective action for releases of waste into "the environment."[50] The imminent hazard provisions of these statutes likewise address an endangerment to "the environment."[51] The environment includes surface water.[52] Further, the HWA and RCRA define the term "disposal" to include the discharge or leaking of waste "into or on any land or water" so that the wastes may "be emitted into the air or discharged into any waters, including

[50] HWA § 74-4-10(E); RCRA § 3008(h), 42 U.S.C. § 6938(h).

[51] HWA § 74-4-13(A); RCRA § 7003(a), 42 U.S.C. § 6973(a).

[52] *E.g., Interfaith Cmty. Org. v. Honeywell Int'l, Inc.*, 399 F.3d 248, 263 (3d Cir.), *cert denied*, 545 U.S. 1129 (2005); *Lincoln Props., Ltd. v. Higgins*, 36 Env't Rep. Cas. (BNA) 1228, 1240 n.28 (E.D. Cal. 1993.

ground waters."[53] EPA's proposed corrective action rules provide for action levels for groundwater, air, surface water, and soil.[54]

Order Modification: None.

36. Comment: (Pages 19-22, ¶¶ 86-106). The commenters state that Section II.A.8 contains a lengthy, generalized recitation of some potential health/environmental effects of various contaminants, which they suggest is unnecessary. According to the commenters, "[t]oxicology could classify virtually everything as a potential health or environmental risk, including substances found throughout the environment. The commenters' claim that the key to toxicity is actually exposure, and that it is therefore unclear what the Department's purpose is in "this selective restatement of some information about the potential toxicity of various contaminants." The commenters further state that EPA has determined that human exposures are under control at the Facility.

Response: The Department does not agree with this comment. Section II.A.8 of the Order sets forth information on the toxicity of substances that have been released into the environment at the Facility. This information supports the Department's endangerment finding. Actual exposure to such substances is not necessary to show an endangerment. As explained in response to **Comment #9**, it is not necessary to show actual harm to prove an endangerment under section 74-4-13 of the HWA, or section 7003 of RCRA, only a risk of harm. The toxicity of the contaminants released into the environment is an important element of that risk. It is standard practice to use the results of toxicological studies to calculate risk to human and ecological receptors, and in accordance with EPA guidance. Courts have routinely looked at the toxicity and other harmful effects of hazardous chemicals released into the environment in ruling on allegations of an endangerment.[55] Information on the toxicity of these contaminants is relevant to support

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[53] HWA § 74-4-3(C); RCRA § 1004(3), 42 U.S.C. § 6903(3).

[54] 55 Fed. Reg. 30798, 30814-20 (July 27, 1990).

[55] *Interfaith Cmty. Org. v. Honeywell Int'l, Inc.*, 263 F. Supp. 2d 796, 815-16 (D.N.J. 2003) (hexavalent chromium in soil and groundwater "is a known human carcinogen," "has been shown to cause mutation of mammalian cells," and "is toxic to virtually every environmental receptor"), *aff'd*, 399 F.3d 248 (3d Cir.), *cert. denied*, 545 U.S. 11291 (2005); *United States v. Union Corp.*, 259 F. Supp. 2d 256, 381 (E.D. Pa. 2003) (polychlorinated biphenyls (PCB's), PAH's, and heavy metals released at the site "represent an acute and chronic toxicity threat to aquatic organisms."); *id.* at 382 (describing the toxicity of PCB's to humans); *B.F. Goodrich Co. v. Murtha*, 697 F. Supp. 89, 96 (D. Conn. 1988) (groundwater contaminated with benzene and bis (2-chloroethyl) ether which "are known to be carcinogenic"); *United States v. Conservation Chem. Co.*, 619 F. Supp. at 175, 200 (substances leaking into groundwater "have been shown in scientific studies to have toxic, carcinogenic, mutagenic, or teratogenic effects); *United States v. Ottati & Goss*, 630 F. Supp. 1361, 1384-86 (D.N.H. 1985) (describing toxic and carcinogenic effects of substances in groundwater); *United States v. Price*, 523 F. Supp. 1055, 1062-63 (D.N.J. 1981) (describing toxic, carcinogenic, teratogenic, and mutagenic effects of contaminants found in monitoring wells and private wells); *United States v. Hardage*, 18 Env't Rep. Cas. (BNA) 1687, 1689-93 (W.D. Okla. 1982); (describing toxic and carcinogenic or suspected carcinogenic properties of substances detected in groundwater); *Lincoln Props., Ltd. v. Higgins*, 36 Env't Rep. Cas. (BNA) 1228, 1235-36 (E.D. Cal. 1993) (tetrachloroethylene and trichloroethylene have been linked to cancer in animal studies).

the Department's allegations that they meet the definition of "hazardous waste" in the HWA.

Furthermore, the Department does not agree that potential human exposures have been controlled at the Facility. EPA based the GPRA determination on incomplete information, and that determination has recently been reversed, as explained in greater detail in response to **Comment #10**.

Order Modification: None.

37. Comment: (Page 22, ¶¶ 107-112). The commenters state that the findings in paragraphs 107 to 112 relate to "protective filings" by the Respondents' predecessors.

Response: The Department does not take any position on whether the filings were accurate. These findings merely recite the regulatory history of the Facility.

Order Modification: None.

38. Comment: (Page 23, ¶ 113). The commenters state that Paragraph 113 "appears to misstate or misunderstand the hazardous waste regulations" as they applied to the North Aeration Lagoon. According to the commenters, the biological treatment of the benzene in the first pond (the South Aeration Lagoon), eliminated the hazardous characteristic of the wastewaters, and they ceased to be hazardous. Thus, treatment of a hazardous waste in the North Aeration Lagoon did not occur. The commenters state further that it is incorrect to say that both ponds exhibited the benzene characteristic as the treatment process in the South Aeration Lagoon negates the benzene characteristic.

Response: The Department does not agree with this comment for several reasons. First, the Facility has been operating the treatment system in the surface impoundments for over 15 years. The commenters' assertion assumes that the treatment system has operated continuously since 1991 and has never experienced mechanical failure and was never taken out of service for maintenance or any other reason. Second, Giant itself stated in its permit application that hazardous waste is treated in each of the lagoons. Finally, the Department views the NAL and the SAL as comprising one unit, as explained in response to **Comment #28**.

Further, Giant has not demonstrated that the second pond has never treated D018. The EPA (3008h) Order on page 5 states "In the Part A Application, Respondent identified the SOWP [South Oily Water Pond or the SAL] and the NOWP [North Oily Water Pond or the NAL] as Hazardous Waste Aeration Impoundments (Aeration Impoundments)." The Department's administrative record contains the results of effluent sampling from discharges from the northeast impoundment enroute to the injection well. The administrative record does not contain reports of periodic sampling of the discharges between the aeration ponds; therefore, Giant cannot verify with chemical analytical data, that there has never been a waste water flow between the SAL and the NAL that was characteristically hazardous for benzene or even that there has never been a flow of a

D018 waste stream from the northwest impoundment to the northeast impoundment of the NAL.

Page 4 of the 1996 Part A Permit Application only identifies one treatment unit TO2 (surface impoundment treatment) which contains three parts as described in Section 6.0 and 6.1 of the 1996 Part B Permit Application. Section 6.0 states "[t]his Section presents a physical description of the surface impoundments and discusses design and operating parameters which are pertinent to the Part B application." Section 6.1 further describes the three aeration lagoons and the overflow piping that connects the three ponds. If only one aeration lagoon was used for treatment, then the 1996 Part B Permit Application would have only discussed one aeration lagoon rather than referencing all three aeration lagoons. Section 2.13.2, page 2-12 of the 1996 Part B Permit Application states "[h]azardous wastewater is treated onsite in the surface impoundments and is not transported off site," which indicates that treatment occurs in all three aeration lagoons that comprise one treatment unit. Further, the Department's Annual Unit Audit fees list the surface impoundments as one unit and the facility has not appealed this designation since the imposition of annual unit audit fees beginning in 1999.

Order Modification: None.

39. Comment: (Page 24, ¶ 119). The commenters state that, contrary to the finding in Paragraph 119, corrective action is not "necessary" to protect human health because EPA has determined that there is no current human health risk. The commenters allege that corrective action is to prevent potential future exposures as opposed to current exposures.

Response: The Department does not agree with this comment. Under section 74-4-10(E) of the HWA, the Department has the authority to require corrective action that it "deems necessary to protect human health and the environment." The Department has determined that the corrective action set forth in the final Order is necessary to protect human health and the environment. The Department has also determined that there may be an endangerment to human health or the environment.

The Department does not agree that there is no human health risk. EPA based the GPRA determination on incomplete information, and that determination has recently been reversed, as explained in greater detail in response to **Comment #10**.

Order Modification: None.

J. SPECIFIC COMMENTS: CONCLUSIONS OF LAW

40. Comment: (Page 24, ¶ 5). The commenters state that it is inaccurate to imply that all the contaminants, as defined on page 31, have been released into the environment from SWMUs and the "HWMU" to these various environmental media. They further state that to the extent hazardous constituents, "as that term is properly used," have migrated from SWMUs and HWMUs, those are subject to corrective action.

Response: The Department does not agree with this comment. The Department has concluded, based on information in the administrative record, that the various contaminants listed in Paragraph 5 have been released into the environment at the Facility. Each of the contaminants listed has been released into one or more of the environmental media listed (i.e., soil, surface water, and groundwater). The conclusion is not limited to releases from SWMU's, nor need it be, as explained in response to **Comment #9**.

Order Modification: None.

41. Comment: (Page 24, ¶ 6). The commenters state that Paragraph 6 incorrectly concludes that certain chemicals are hazardous waste. The commenters state that to be hazardous waste, a waste determination under the RCRA regulations would need to be performed.

Response: The Department does not agree with this comment. The conclusion in Paragraph 6 must be read in the context of the preceding conclusions. The conclusion in Paragraph 5 lists some thirteen contaminants that have been released into the environmental at the Facility. Paragraph 6 then concludes that these contaminants (three were inadvertently omitted) are "hazardous waste" as defined in the HWA.

Once released into the environment, these contaminants are "hazardous wastes" as defined in the HWA. As explained in response to **Comment #9**, the broader statutory definition applies rather than the definition in the regulations. The hazardous waste determination under the regulations is not relevant.

The Department believes it should be clear that the contaminants listed in Paragraph 6 are those that are described as having been "released into the environment" in Paragraph 5.

Order Modification: The Department revised the conclusion in Paragraph 6 to clarify the contaminants that have been released into the environment are "hazardous wastes." The Department has also amended the conclusion in Paragraph 6 to include MBTE, manganese, and nitrate, which are listed in Paragraph 5 but were inadvertently omitted from Paragraph 6.

42. Comment: (Pages 24-25, ¶ 7). The commenters state that Paragraph 7 erroneously concludes that ethylbenzene and xylene are "hazardous waste constituents" listed in appendix VIII to 40 CFR part 261.

Response: The Department agrees with this comment. Ethylbenzene and xylene are listed in appendix IX to 40 CFR part 264; EPA views the substances on this list to be included in the term "hazardous waste constituent" for purposes of corrective action, as explained in response to **Comment #15**. However, as the commenters correctly point out, these contaminants are not listed in appendix VIII to 40 CFR part 261.

Order Modification: The references to ethylbenzene and xylenes were deleted in the conclusion in Paragraph 7 of Section II.B of the final Order.

43. Comment: (Page 25, ¶ 8). The commenters state that Paragraph 8 incorrectly concludes that "petroleum and petroleum products . . . that are spilled or leaked into the environment are 'solid waste.'" They state that "numerous guidance documents, regulations, and court cases indicate that released petroleum product may be recovered and need not be handled necessarily as waste."

Response: The Department agrees with the commenters' statement that spilled or leaked petroleum products that are recovered are not solid wastes, and do not need to be managed according to the RCRA regulations. However, petroleum and petroleum products that have not been recovered and used for their intended purpose are hazardous waste and solid waste within the meaning of sections 74-4-1(M) and (I) and 74-4-13 of the HWA, as well as sections 1004(5) and (27) and 7003 of RCRA. Petroleum products in soil and groundwater at the Facility, which the Order addresses, plainly have not been recovered.

The commenters cite several EPA regulations and *Federal Register* notices in support of their comment. First, they cite 40 CFR 261.4(a)(12), which excludes recovered petroleum from the definition of "solid waste" in the RCRA regulations. By its terms, it applies only to "recovered oil that is recycled" and that is "inserted into the petroleum refining process." It does not apply to petroleum that has been neither recovered nor recycled. Moreover, the exclusion is in the regulatory definition of "solid waste," not the statutory definition that applies in imminent hazard actions.[56] Indeed, EPA's preamble to the final rule expressly makes this point:

> EPA's action today affects only the final regulatory definition of solid waste. It does not interpret the scope of the term "solid waste" for purposes of the non-regulatory authorities in RCRA sections 3007, 3013, 7002 and 7003. See 40 CFR 261.1(b). Thus, for purposes of those authorities, the Agency . . . would have the benefit of the full jurisdictional reach of the statutory definition of solid waste.[57]

Second, the commenters cite the preamble to final EPA rule adopting the toxicity characteristic leaching procedure (TCLP). In that preamble, EPA discussed the potential affects of the new rule on the cleanup of contaminated soil and debris from leaking underground storage tanks (LUST). The new rule would have rendered a large quantity of that soil and debris hazardous waste under the RCRA regulations, possibly overwhelming hazardous waste treatment and disposal facilities. Therefore, EPA decided to defer applying the rule to contaminated soil and debris from LUST sites. In its

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[56] *Conn. Coastal Fishermen's Ass'n v. Remington Arms Co.*, 989 F.2d 1305, 1314-15 (2d Cir 1993) ("the statutory definition of solid waste . . . applies to imminent hazard lawsuits brought by the United States under § 7003").

[57] 59 Fed. Reg. 38536, 38544 (July 28, 1994).

discussion, EPA stated that "[f]ree product recovery would not be subject to Subtitle C requirements because the material being recovered is not a waste." This statement applies to the product that has been recovered, not to material in soil or groundwater. Moreover, the leaking tanks at the Facility are not LUST sites.

Third, the commenters cite the preamble to the EPA rules on underground storage tanks to support their contention that spilled or leaked petroleum is "a product and not a waste." In that preamble, however, EPA states that commercial chemical products listed as hazardous wastes "become hazardous wastes when discarded, including when spilled and then not cleaned up and used for their intended purpose."[58]

Fourth, the commenters quote a lengthy passage from the same preamble in which EPA states that petroleum-contaminated soils generally are not listed or characteristic hazardous wastes – meaning they generally do not meet the definition of hazardous waste in the RCRA regulations. The commenters quote EPA as stating that petroleum-contaminated soils "are not an EPA-listed hazardous waste," that they "would not exhibit the hazardous characteristics of corrosivity or reactivity," and that they "should not be a hazardous waste . . . due to ignitability." The commenters do not quote the next passage in the EPA discussion in which the Agency reports that such soils "are unlikely to ever exhibit the characteristic of EP toxicity."[59] However, the quoted passage was published in 1988; it predates by almost two years EPA's promulgation of the TCLP rule in 1990. In addition to changing the analytical procedure for determining toxicity under RCRA, the TCLP rule added several organic constituents, including benzene, to the list of toxic constituents for which analysis must be performed. The addition of benzene has caused many petroleum-based wastes to "fail" the toxicity test and to be identified as hazardous waste subject to the RCRA regulations. Yet whether petroleum-contaminated soils are or are not hazardous waste under the RCRA regulations is of limited relevance. They are hazardous waste and solid waste under the statutory definitions in the HWA and RCRA, which are the definitions that apply in imminent hazard cases as explained in response to **Comment #9**.

The commenters assert that numerous court cases support their position, but they do not cite any. Several cases have addressed the issue, and have held that the definition of solid waste includes material that has leaked or spilled into the environment and become a contaminant in soil, surface water, or groundwater.[60] EPA has also taken this position in its guidance on section 7003.[61]

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[58] 53 Fed. Reg. 37082, 37188 (Sept. 23, 1988) (emphasis added). The commenters incorrectly cite the rule at volume 58 rather than volume 53.

[59] *Id.* at 37189.

[60] *Agric. Excess & Surplus Ins. Co. v. A.B.D. Tank & Pump Co.*, 878 F. Supp. 1091, 1095 (N.D. Ill. 1995) ("once gasoline leaked into the soil, the gasoline itself was no longer a useful material and instead became abandoned or discarded material"); *Craig Lyle Ltd. P'ship v. Land O'Lakes, Inc.*, 877 F. Supp. 476, 482 (D. Minn. 1995) ("spilt or leaked petroleum from commercial operations satisfies RCRA's definition of 'solid waste'"); *Zands v. Nelson*, 779 F. Supp. 1254, 1262 (S.D. Cal. 1991) ("gasoline is no longer a useful product after it leaks into, and contaminates, the soil"; rather, "the gasoline has been abandoned via the

Order Modification: None.

44. Comment: (Page 25, ¶ 9). The commenters state that Paragraph 9 incorrectly concludes that certain chemicals are solid waste. The commenters state that whether these chemicals are a solid waste depends on "the origins of the material and the status."

Response: The Department does not agree with this comment for the same reasons discussed in response to **Comment #41**.

Order Modification: The conclusion in Paragraph 9 has been revised to clarify that the contaminants that have been released into the environment are "solid wastes."

45. Comment: (Page 25, ¶ 12). The commenters state that, contrary to the conclusion in Paragraph 12, there is no basis for any imminent hazard to human health or the environment. The commenters dispute the conclusion in Paragraph 12 that "hazardous waste at the Facility, and the release of such waste from the Facility" may present an imminent hazard to human health or the environment as "simply not correct." The commenters maintain that Giant ships most of the hazardous waste it generates off-site for disposal, except for D018 waste. They state that these wastes pose no more of a hazard than those at any other generator site in New Mexico. They state that the D018 waste is treated in the wastewater treatment unit and the "innocuous effluent" is then disposed in the UIC well.

Response: The Department does not agree with this comment for the reasons discussed in response to **Comment #9**. The "hazardous waste" referred to in Paragraph 12 is not limited to the listed and characteristic hazardous waste at the Facility – that is, the waste that meets the definition of "hazardous waste" in the regulations. It is not limited to the regulated hazardous waste that is stored prior to off-site shipment or the benzene-contaminated wastewater (D018). Rather, Paragraph 12 refers to all the wastes at the Facility that meet the statutory definition of hazardous waste, including the large quantities of wastes that have been released into the environment.

Order Modification: None.

46. Comment: (Page 25, ¶ 13). The commenters object to the conclusion in Paragraph 13 that "current hazardous waste management poses any type of imminent hazard."

Response: The Department does not agree with this comment for the reasons discussed in response to **Comments #9** and **#45**.

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leakage . . . into the soil"); *accord Dydio v. Hesston Corp.*, 887 F. Supp. 1037, 1048 (N.D. Ill. 1995) (following *Zands*).

[61] EPA Guidance on the Use of Section 7003 of RCRA, at 15 (Oct. 1997) (listing "gasoline that has leaked from tanks" as an example of solid waste that could be addressed under section 7003).

Order Modification: None.

47. Comment: (Page 25, ¶ 14). The commenters state that Paragraph 14 incorrectly concludes that owner of the Facility, Giant Industries Arizona, Inc., was engaged the treatment, storage, or disposal of hazardous waste.

Response: The Department does not agree with this comment. The Department alleges that Giant Industries Arizona, Inc. is a party that "contributed to" the handling, storage, treatment, or disposal of hazardous or solid waste at the Facility within the meaning of section 74-4-13 of the HWA.

Order Modification: None.

48. Comment: (Page 25, ¶ 14). The commenters state that Paragraph 14 "seems to recognize that 'past' handling of 'solid waste' is what is predominantly at issue," and that "the bulk of the . . . corrective action to be performed at this site predominantly relates to addressing decades of pre-RCRA . . . waste management practices by companies that operated prior to Respondents." The commenters object to three statements in Paragraph 14, asserting: 1) that it is not the Respondents' past and current handling, storage, treatment, and disposal that is the principle cause of the potential hazard; 2) that it is not the "current" handling, treatment, storage, or disposal that may pose an endangerment; and 3) that there is no imminent and substantial endangerment.

Response: The Department does not agree with this comment. First, the Department does not take any position on whether the greater part of the environmental contamination at the Facility is the result of Giant's waste management practices or those of its predecessors. Giant is the successor to the prior operators of the Facility and is therefore liable for the contamination. Second, the environmental contamination is likely the result of both past and current practices at the Facility. The investigation to be conducted under the Order will help determine the sources of contamination, but it is likely that some of the contamination is the result of current releases from solid waste management units and areas of concern at the Facility. Third, the Department has concluded that there may be an imminent and substantial endangerment to health or the environment as the result of past and current handling, storage, treatment, and disposal of hazardous waste or solid waste at the Facility. The reasons for this conclusion are set forth in detail in Part II of the Order, based on evidence in the administrative record.

Order Modification: None.

49. Comment: (Page 25, ¶ 15). The commenters state that the Order is not necessary to protect human health and the environment because corrective action is being conducted under a consent order with EPA.

Response: EPA will withdraw the Consent Order as soon as the Department issues an enforceable document, with adequate and enforceable provisions for corrective action, as stated in a letter from EPA to the Department dated November 29, 2006.

Order Modification: None.

K. SPECIFIC COMMENTS: GENERAL PROVISIONS

50. Comment: (Page 31, Section III.A). The commenters state that, contrary to the stated purpose of the Order, it is not necessary to perform interim measures to mitigate threats, as EPA has determined that human health threats have been mitigated through corrective action.

Response: The Department does not agree with this comment for the reasons set forth in response to **Comment #15** and **Comment #39**. Section III.A of the Order identifies types of actions that are part of the corrective action process.

Order Modification: None.

51. Comment: (Page 31, Section III.B). The commenters state that the definition of "area of concern" extends "beyond the jurisdictional reach of RCRA corrective action." The commenters state that corrective action applies only to "releases of hazardous constituents" from solid waste management units. The commenters state that "to sweep everything into RCRA corrective action" is inconsistent with New Mexico law that requires the New Mexico hazardous waste program to be "no more stringent than the federal program."

Response: The Department does not agree with this comment for the reasons set forth in response to **Comment #15**. As interpreted by EPA, corrective action applies to a release of hazardous waste as defined in RCRA,[62] and hazardous constituents including constituents listed in appendix VIII of 40 CFR part 261 and appendix IX of 40 CFR part 264.[63] Corrective action authority is not limited to releases from hazardous waste management units, but is also applied to broader "areas of concern."[64] More importantly, the Department is issuing the Order primarily under imminent hazard authority, not corrective action authority.

In support of their contention, the commenters quote a July 1986 report from the EPA "RCRA/Superfund Hotline" – a service operated by an EPA contractor. The Hotline responded to an inquiry about EPA's corrective action authority at an interim status facility consisting of a hazardous waste surface impoundment and a solid waste landfill. The facility owner and operator had submitted to EPA a permit application for the surface

[62] 61 Fed. Reg. 19432, 19443 (May 1, 1996). This notice is quoted in relevant part in response to **Comment #9** above.

[63] 55 Fed. Reg. 30798, 30809 (July 27, 1990). This notice is quoted in relevant part in response to **Comment #9** above.

[64] 61 Fed. Reg. 19432, 19443 (May 1, 1996). This notice is quoted in relevant part in response to **Comment #9** above.

impoundment, and then clean closed the impoundment before EPA issued the permit. The Hotline was asked whether EPA could require corrective action for releases of hazardous constituents from the landfill. The Hotline responded that EPA had the authority to require such corrective action because "[c]orrective action under Section 3008(h) applies to releases from solid waste management units at interim status facilities."[65] The response does not anywhere say that corrective action is limited to releases from solid waste management units. It does not support the commenters' contention. Moreover, EPA's later statements that directly address these questions, published in the *Federal Register* in 1990 and 1996, provide much more useful and definitive guidance on the issues than a 1986 Hotline report.

The Department's interpretation of its corrective action and imminent hazard authority, and the Department's actions pursuant to that authority, is entirely consistent with and no more stringent than the federal program.

Order Modification: None.

52. Comment: (Page 32). The commenters state that the definition of "hazardous waste constituent" or "hazardous constituent" is inconsistent with state and federal law.

Response: The Department does not agree with this comment for the reasons set forth in response to **Comment #15**. As interpreted by EPA, corrective action applies to a release of hazardous constituents including constituents listed in appendix VIII of 40 CFR part 261 and appendix IX of 40 CFR part 264.[66]

Order Modification: None.

53. Comment: (Page 32, Section III.B). The commenters state that the definition of "hazardous waste" is "contrary to law" in that it "impermissibly seeks . . . to expand the jurisdictional reach beyond the definition of 'hazardous waste' under federal and New Mexico law." The commenters contend that the definition "contravenes" the legislative mandate that the State hazardous waste program "be no more stringent than the federal regulations." The Order, according to the commenters, "is clearly regulating in a more stringent fashion." The commenters also state that the definition "improperly . . . seeks . . . to override all of the critical language of 40 CFR Part 261 on determining what is a hazardous waste." The commenters state that "it is impermissible to add new hazardous wastes for just one facility by Order, when those same wastes everywhere else in the State would not be hazardous." The commenters assert that to do so would be "arbitrary and capricious," and would "raise issues of due process of law and equal protection."

[65] RCRA On-Line #12681, available at <www/epa.gov/rcraonline>.

[66] 55 Fed. Reg. 30798, 30809 (July 27, 1990). This notice is quoted in relevant part in response to **Comment #15** above.

Response: The Department does not agree with this comment for the reasons set forth in response to **Comment #15**. The Department is not in any manner "expanding the jurisdictional reach" of the HWA. Indeed, the definition of "hazardous waste" in the Order is taken directly from the definition of that term in the statute. The statutory definition of "hazardous waste," not the regulatory definition, applies to corrective action, as stated in EPA guidance,[67] and as explained in response to **Comment #15**. The statutory definition also applies to imminent hazard actions under EPA guidance[68] and caselaw,[69] as also explained in response to **Comment #15**. The definition does not "override" the regulations under 20.1.4.100 NMAC (incorporating 40 CFR part 261); those regulations are not applicable. The Department's interpretation is consistent with, no more stringent than, and precisely follows EPA's interpretation. The Department has been using the same statutory definition of "hazardous waste" in other permits and orders that include cleanup requirements pursuant to corrective action or imminent hazard authority. Including the statutory definition of "hazardous waste" in the Order is neither arbitrary nor capricious, nor does it raise any due process or equal protection issues.

Order Modification: None.

54. Comment: (Page 33, Section III.B). The commenters state that the definition of "solid waste" should "more appropriately be" the "more specific regulatory definition." The commenters state that it is "improper to use less precise statutory definitions to override a variety of provisions" in the regulations.

Response: The Department does not agree with this comment for the reasons set forth in response to **Comment #15**. The statutory definition of "solid waste" applies in cases brought pursuant to the imminent hazard provisions, as stated both in both EPA guidance[70] and in relevant caselaw.[71]

Order Modification: None.

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[67] 55 Fed. Reg. 30798, 30809 (July 27, 1990).

[68] EPA, Guidance on the Use of Section 7003 of RCRA, at 14 (Oct. 1997) ("the broad statutory definitions, not the regulatory definitions, govern in Section 7003 actions").

[69] *Military Toxics Project v. EPA*, 146 F.3d 948, 951 (D.C. Cir. 1998) ("Although EPA has narrowed the definition of solid waste for purposes of [the regulatory program], the statute itself still provides the relevant definition for purposes of [section 7003]."); *Conn. Coastal Fishermen's Ass'n v. Remington Arms Co.*, 989 F.2d 1305, 1314-15 (2d Cir 1993) ("the statutory definition of solid waste . . . applies to imminent hazard lawsuits brought by the United States under § 7003"); *United States v. Valentine*, 856 F. Supp. 621, 627 (D. Wyo. 1994) ("Section 7003 is . . . is governed by the statutory definitions of hazardous waste"); *Sierra Club v. U.S. Dep't of Energy*, 734 F. Supp. 946, 948 (D. Colo. 1990) ("RCRA has statutory and regulatory definitions of 'hazardous waste,'" and "[t]he broad statutory definition primarily governs actions to abate imminent and substantial risks to the public and environment").

[70] EPA, Guidance on the Use of Section 7003 of RCRA, at 14 (Oct. 1997) ("the broad statutory definitions, not the regulatory definitions, govern in Section 7003 actions").

[71] *See* cases cited in note 69 above.

55. Comment: (Page 33, Section III.B). The commenters state that the definition of "solid waste management unit" should be made consistent with the EPA definition.

Response: The Department agrees with this comment. One-time spills and similar sites are addressed under the Order as "areas of concern." This change in the definition of "solid waste management unit" has no practical effect on the cleanup requirements.

Order Modification: The last clause of the second sentence of the definition, which included the text "one-time spills that were not cleaned up," has been deleted.

56. Comment: (Page 34, Section III.C). The commenters state that "it is clear NMED is issuing the draft Order as a corrective action order to monitor and test for hazardous waste under 74-4-10.1 and to address past handling of waste . . . under 74-4-13, consistent with corrective action jurisdiction that applies to" a hazardous waste treatment, storage, or disposal facility. According to the commenters, the Facility is subject to corrective action authority due to the treatment of D018 wastewater in the South Aeration Lagoon.

Response: The Department does not agree with this comment. As explained in response to **Comment #48,** the Order addresses environmental contamination resulting from both past and present handling, treatment, storage, and disposal of waste. The Department is issuing the Order primarily pursuant to imminent hazard authority; it is consistent with corrective action authority, but it is not limited to corrective action authority. The Facility is subject to imminent hazard authority under the HWA not only because it treats wastewater containing benzene (waste code D018), but because of the entire panoply of hazardous and solid waste managed at the Facility that the Department has determined may have resulted in an imminent and substantial endangerment to health or the environment.

Order Modification: None.

57. Comment: (Page 34, Section III.E). The commenters state that the "Binding Effect" provision should apply only to the Respondents, and not to their officers, directors, employees, agents, trustees, receivers, successors, assigns, and all other persons . . . acting on their behalf." The commenters assert that it is "unprecedented for a corrective action order to seek to bind all agents, . . . employees, directors and officers."

Response: The Department does not agree with this comment. The Department has based this provision, in part, on Rule 65(d) of the Federal Rules of Civil Procedure, which provides that an injunction shall be binding on the parties and "their officers, agents, servants, employees, and attorneys." The Order is the administrative equivalent of an injunction. Such a provision is not at all unprecedented. For example, a virtually identical provision was in the EPA Administrative Order on Consent (Dec. 31, 1992), discussed in response to **Comment #49**, which the final Order effectively replaces. It applied (page 1, Section II.1) to exactly the same classes of parties. A nearly identical

provision was included in the cleanup order that the Department issued to the DOE and the University of California under sections 74-4-10.1 and 74-4-13 of the HWA on November 26, 2002. It applied (page 54) to "the Respondents; their officers; directors; employees; agents; trustees; receivers; successors; assigns," and certain officers of DOE. A very similar provision is contained in EPA's "Model Unilateral Administrative Order for Remedial Design and Remedial Action Under Section 106 of CERCLA" (Mar. 30, 1990).[72] It applies (page 11) to "each Respondent, its (their) directors, officers, employees, agents, successors, and assigns."

Nevertheless, the Department is willing to shorten and simplify the "Binding Effect" provision in response to this comment, and based on discussions with representatives of Giant.

Order Modification: The Department has deleted the second half of the first sentence of Section III.E (Binding Effect), beginning with "and all other persons . . .."

58. Comment: (Page 34, Section III.E). The commenters state that the "Binding Effect" provision should not state that "No change in ownership, corporate, or partnership status relating to the Facility will in any way alter the Respondents responsibilities under this Order." They state that such changes are governed by corporate law and cannot be overridden by an order from a state environmental agency.

Response: The Department does not agree with this comment. The provision does not "override" existing law; the provision confirms existing law. Again, a virtually identical provision (page 2, section II.2) was in the EPA Administrative Order on Consent (Dec. 31, 1992), discussed in response to **Comment #49**, which the final Order effectively replaces.

Order Modification: None.

59. Comment: (Page 34, Section III.E). The commenters state that the last paragraph of the "Binding Effect" provision, which requires all contractors, laboratories, and consultants retained to conduct work under the Order must comply with the Order, should be limited to the "*relevant* terms of this Order *applicable to their work*."

Response: The Department does not agree with this comment. The purpose of the provision is to ensure that all contractors, laboratories, and consultants retained to conduct work under the Order comply with the Order. Presumably, if certain terms of the Order are not relevant to the work that a particular contractor is retained to perform, that contractor will not have any opportunity to comply or to not comply with the Order. However, whether or not a particular term of the Order is "relevant" to a contractor's work should not serve as a defense in the event of noncompliance. Again, a very similar, though arguably more stringent, provision (page 2, section II.4) was in the EPA

[72] OSWER Dir. No. 9833.0-2(b).

Administrative Order on Consent (Dec. 31, 1992), discussed in response to **Comment #49**, which the final Order effectively replaces.

Order Modification: None.

60. Comment: (Page 35, Section III.G.2). The commenters express "due process concerns" with the "Additional Work" provision of the Order, stating that it gives the Department "unilateral and unfettered discretion to deem anything as additional necessary corrective action" without any standards or avenue for dispute resolution.

Response: The Department largely disagrees with this comment. Any additional work required under this provision would be subject the same cleanup standards as all the other work to be conducted under the Order. Those cleanup standards are set forth in Section VII of the Order. The requirements included in Section VII of the final Order establish the endpoints for cleanup. If the Respondents achieve the objectives described in Section VII and receive a determination from the Department that corrective action is complete without controls for a site, no additional corrective action is required unless a new release or new information regarding a past release is discovered. Sites for which the Department has determined that corrective action is complete with controls will likely have ongoing monitoring and maintenance obligations (e.g., inspections, detection monitoring).

Moreover, the EPA Administrative Order on Consent (Dec. 31, 1992), discussed in response to **Comment #49**, which the final Order effectively replaces, contained (page 8, Section VI.5.f) a very similar provision that allowed EPA to require additional work.

Finally, the Department has added a dispute resolution provision to the final Order (Section III.R), as explained in response to **Comment #13**. Thus, the Respondents will have an avenue for resolving disputes.

Order Modification: None.

61. Comment: (Page 36, Section III.I). The commenters state that it would be more appropriate to require that the Respondents make "good faith, reasonable efforts" to obtain needed access to property they do not control rather than "best efforts" as the Order requires.

Response: The Department does not agree with this comment. The site access provision appropriately requires the Respondents to make "best efforts" to obtain access to property they do not control if such access is necessary to conduct work required under the Order. The Department bases this provision in part on section 3004(v) of RCRA, which requires corrective action beyond the facility boundary, "unless the owner or operator of the facility concerned demonstrates to the satisfaction of the [EPA] Administrator that, despite the owner or operator's best efforts, the owner or operator was unable to obtain

the necessary permission to undertake such action."[73] The regulations contain a very similar requirement.[74]

Order Modification: None.

62. Comment: (Page 36, Section III.I). In reference to the "Entry and Inspection" provision, the commenters state that, while the Department is entitled to interview Giant employees, Giant or the employee is entitled to have counsel present during the interview.

Response: The Department agrees that either Giant or an individual Giant employee that the Department seeks to interview is entitled to have counsel present during the interview. The Department does not believe it is necessary to revise the Order to expressly state that there is a right to counsel during interviews, and the commenters do not seem to seek such a revision. Notably, a very similar provision for employee interviews (page 11, Section XI.1.a) was in the EPA Administrative Order on Consent (Dec. 31, 1992), discussed in response to **Comment #49**, which the final Order effectively replaces, yet it made no reference to a right to counsel.

Order Modification: None.

63. Comment: (Pages 36-37, Section III.J). The commenters state, in reference to the "Availability of Information" provision, that the Department should clarify that Giant is not required to furnish "privileged or otherwise legally confidential information."

Response: The Department largely disagrees with this comment. The "Availability of Information" provision requires Giant, upon request, to furnish to the Department information "relating to hazardous wastes that are or have been managed at the Facility." Such information should not be privileged. Nor should it be confidential, except perhaps in unusual circumstances. While Giant would not be required to furnish privileged information, it would be required to furnish "confidential business information." The HWA, at section 74-4-4.3(D) provides that confidential business information must be furnished to the Department if requested, and that the Department must treat the information as confidential and not release it to the public.

Order Modification: None.

64. Comment: (Page 37, Section III.K). The commenters state in reference to the "Record Preservation" provision that they would like to discuss a different time period for maintaining records. They assert that under RCRA most records only need to be kept for three years. They also propose that there should be no need to preserve paper copies where electronic copies can be stored for less cost.

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[73] 42 U.S.C. § 6924(v) (emphasis added).

[74] 40.1.4.500 NMAC (incorporating 40 C.F.R. § 101(c)).

Response: The Department largely disagrees with this comment. The "Record Preservation" provision requires the Respondents to maintain documents, data, and other information prepared under the Order for ten years after completion of all corrective action, or until three years after cessation of business activities, whichever is later. These are reasonable periods of time to maintain records of cleanup work. The commenters' assertion that under RCRA most records must be kept for only three years is not correct. The RCRA regulations do require a facility to retain some records, such as hazardous waste manifests, for three years.[75] But most records must be kept for longer periods of time. For example, permitted facilities are required to maintain certain records, such as reports and data used in the permit application, for at least three years, although EPA or the state regulatory agency may require a longer retention period.[76] The regulations require the bulk of facility records, namely the operating records, to be retained "until closure of the facility."[77] Permitted disposal facilities must retain groundwater monitoring data until the end of the post-closure care period,[78] which may be years after the facility has closed. Moreover, the regulations provide that the retention period for all records is automatically extended during the course of an enforcement action.[79]

Moreover, it is in the Respondents' interest to maintain records of monitoring and remediation activities for future reference during the operating life of the refinery in the event that releases occur in the future.

Order Modification: None.

65. Comment: (Page 37, Section III.L). The commenters state the reservation of rights "seems unusually broad." They state that the reservation indicates that "only the Respondents are bound but not" the Department. They state that the provision "should be clarified."

Response: The Department does not agree with this comment. The "Reservation of Rights" provision is fairly standard. Indeed, the EPA Administrative Order on Consent (Dec. 31, 1992), discussed in response to **Comment #49**, which the final Order effectively replaces, contained a similar reservation of rights provision (page14-15, section XV). The Department reserves all its rights and authorities. It is true that the Order is binding on the Respondents but not on the Department because that is the nature of an order; there are no requirements that apply to the Department. The commenters do not explain how the provision should be clarified, and the Department does not believe the provision needs any clarification.

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[75] 40 C.F.R. § 264.71(a)(5).

[76] 40 C.F.R. § 270.30(j)(2).

[77] 40 C.F.R. § 264.73(b).

[78] 40 C.F.R. § 270.30(j)(2).

[79] 40 C.F.R. § 264.74(b).

Order Modification: None.

66. Comment: (Page 37, Section III.L). The commenters state the second to last (or fifth) paragraph of the reservation of rights provision is "unusually broad" in requiring the Respondents to perform work in addition to that specified in the Order. The commenters assert that the provision is "arbitrary" because there "are no standards or discussion of what type of work is contemplated." They assert that the provision "raises significant due process concerns."

Response: The Department does not agree with this comment. In the fifth paragraph of the "Reservation of Rights" provision, the Department reserves its right to disapprove work that the Respondents perform if it is not in compliance with the Order, and to require work in addition to that required by the Order. The Department responded to the question of requiring additional work under the Order in response to **Comment #60**. This provision, however, is merely a reservation of the Department's right to require additional work. It is not a substantive requirement. The EPA Administrative Order on Consent (Dec. 31, 1992), discussed in response to **Comment #49**, which the final Order effectively replaces, contained a nearly identical reservation of rights (page 15, Section XV.3).

Order Modification: None.

67. Comment: (Page 37, Section III.L). The commenters state the last paragraph of the reservation of rights needs to state that the Order "may need to be modified if inconsistent with any of those other legal obligations."

Response: The Department does not agree with this comment. The last paragraph of the "Reservation of Rights" provision states that the Order does not relieve the Respondents of their obligation to comply with the HWA, the Hazardous Waste Management Regulations, and all other applicable laws, regulations and permits. This provision is also fairly standard. The EPA Administrative Order on Consent (Dec. 31, 1992), discussed in response to **Comment #49**, which the final Order effectively replaces, contained a very similar provision (pages 14-15, Section XV.2 and 4), yet it contained no statement that it might need to be modified if inconsistent with any legal obligations. The Department is confident, moreover, that the Order is not inconsistent with any legal obligations.

Order Modification: None.

68. Comment: (Page 38, Section III.M). The commenters state, in reference to the "Enforcement" provision, that it is "improper" to make all the requirements, "no matter how trivial," of all the documents that are incorporated by reference a requirement of the Order

Response: The Department does not agree with this comment. The "Enforcement" provision merely states that the requirements of the Order are enforceable and lists some

of the statutory provisions by which they may be enforced. The comment seems to apply more to Section III.G of the Order (page 35), which provides that all work plans and schedules that are approved under the Order are incorporated into the Order and become an enforceable part of the Order. Again, this provision is fairly standard. The EPA Administrative Order on Consent (Dec. 31, 1992), discussed in response to **Comment #49**, which the final Order effectively replaces, contained a very similar provision (page 8, Section VI.5.c).

The Department does not agree with the commenters' contention that the provision will lead to enforcement actions for "trivial" violations of a work plan. All work plans and schedules required under the Order and approved by the Department must be implemented. The work plans and the various other documents to be submitted under the Order are not in any manner "trivial," and a work plan does not normally include any "trivial" requirements.

Order Modification: None.

69. Comment: (Page 38, Section III.Q). The commenters state that there is no basis in the law or the regulations for requiring financial assurance for corrective action. They state that the reference in the Order to 40 CFR 264.142 and 144 applies only to financial assurance for closure. The commenters further state that the financial assurance requirement is "unduly onerous."

Response: The Department does not agree with this comment. The Department has general authority to require corrective action, including financial assurance for corrective action. The state regulations, like the federal regulations, do not include specific provisions for corrective action. EPA proposed detailed regulations to govern financial assurance for corrective action in 1986.[80] EPA also proposed specific corrective action regulations in 1990, the proposed 40 CFR Part 264, subpart S rule.[81] The agency decided not to adopt these rules, opting for a more flexible approach to corrective action.[82] Nonetheless, EPA has concluded that it has such authority: "RCRA section 3004(u) requires that, when corrective action cannot be completed prior to permitting, RCRA permits contain corrective action schedules of compliance and financial assurance. Financial assurance is also typically included in corrective action orders."[83] EPA goes on to state that, "[i]n the absence of final rules, program implementers and facility owner/operators have the flexibility to tailor financial responsibility requirements to facility-specific circumstances."[84] New Mexico law, like section 3004(u) of RCRA, authorizes financial assurance for corrective action. Section 74-4-4(A)(5)(f) authorizes

[80] 51 Fed. Reg. 37854 (Oct. 24, 1986).

[81] 55 Fed. Reg. 30798 (July 27, 1990).

[82] *See* 61 Fed. Reg. 19435 (May 1, 1996).

[83] *Id.* at 19454.

[84] *Id.*

the New Mexico Environmental Improvement Board (the Board) to adopt regulations for hazardous waste facilities, "including financial responsibility for corrective action." Like EPA, the Board has not adopted such regulations. The Department nonetheless has the authority to require financial assurance under its general corrective action authority in the absence of state regulations, much as EPA has the authority to require financial assurance under its general corrective action authority in the absence of federal regulations.

The Department does not agree that the "Financial Assurance" provision in the Order is onerous. It is based on federal regulations governing financial assurance for closure and post-closure care. The Order references these regulations, not as a citation of legal authority, but to identify the types of financial assurance mechanisms that may be used and to establish the requirements for such mechanisms.

In addition, the following EPA guidance on financial assurance requirements, all of which are in the administrative record, support the requirement for financial assurance for corrective action: *Interim Guidance on Financial Responsibility for Facilities Subject to RCRA Corrective Action* (September 2003); *Model RCRA 7003 Administrative Order On Consent* (October 28, 2005)*; Model Provisions for Cost Estimates and Financial Responsibility for Use in RCRA § 3008(h) Administrative Orders on Consent* (February 8, 2006), *Attachment I Response to Recommendation 4.1 – EPA's Plan for addressing Concerns with the Existing Financial Assurance Regulations* and *Attachment II Upgrading Implementation of the Financial Assurance Program.*

Order Modification: Section III.Q of the final Order was modified to cite 40 CFR 264.101 as the legal authority for the requirement that the Respondents establish financial assurance for corrective action activities at the Facility.

L. SPECIFIC COMMENTS: FACILITY INVESTIGATION

70. Comment: (Page 41, Section IV, Facility Investigation). The commenters state that the first paragraph of Section IV requires a historical investigation of all routes by which any contaminants may have been released, regardless of media or whether such releases were authorized and deemed acceptable under federal or state permits. The commenters maintain that there is no legal basis for this requirement in RCRA corrective action, and it overrides all other statutory and regulatory programs that expressly carve out things like air and water pollution from RCRA jurisdiction. The commenters note that even CERCLA[85] has a federally permitted release defense that prohibits the government from requiring cleanups of discharges or emissions authorized by federal permit. The commenters' conclude that the draft Order "at times utilizes language that seeks to grant plenary authority to NMED to the exclusion of all other regulatory authorities that have their own well-defined areas of jurisdiction," which the commenters argue "is inconsistent with law."

[85] CERCLA is the federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 6901 to 6975.

Response: The Department disagrees with this comment. Section IV of the Order does not require a historical investigation. Section IV states that the Respondents must determine the nature and extent of contamination in all affected media. Section IV of the Order also acknowledges that some site investigations have already been conducted at the Facility and that the Respondents may rely on data already acquired as part of the assessment of the nature and extent of contaminant releases required under the Order.

RCRA corrective action and imminent hazard authority applies to releases to air and water. Air and water pollution are not "carve[d] out" from RCRA authority. Rather, the RCRA program is subject to several specific, limited exemptions for wastes that are regulated under the CWA. Those exemptions do not apply in this case for the reasons explained in response to **Comment #27**. The exemption in CERCLA for a federally permitted release is not applicable; the Order is not in any way based on CERCLA authority.

Order Modification: None.

71. Comment: (Page 41, Section IV.A, Facility-Wide Groundwater Monitoring). The commenters state that the requirement for facility wide groundwater monitoring should be discussed and negotiated. They note that the requirement overlaps the requirements entered into by the New Mexico Oil Conservation Division in the 2005 OCD Order. They state that the inclusion of "all" wells in the monitoring plan may not be necessary or appropriate because not all wells were designed for chemical sampling. The commenters argue that the draft Order needs to be cost-efficient, and that it is too prescriptive in its technical requirements.

Response: The Department largely disagrees with this comment. The Department has discussed the groundwater monitoring requirements of the Order with Giant. The requirements are not inflexible. Section IV.A.1 of the Order requires the Respondents to submit to the Department a facility-wide groundwater monitoring plan. Section IV.A.1, Item 2 of the Order requires the Respondents to identify all wells to be monitored, but it does not specifically require sampling of all wells. Item 4 in Section IV.A.1 requires the Respondents to propose the sampling program.

Although the requirement for the monitoring plan overlaps with the groundwater abatement requirement in the OCD Stipulated Final Order, the requirements are entirely consistent with the groundwater monitoring requirements in the OCD's Stipulated Final Order. The Department will coordinate closely with OCD in implementing the final Order.

Because the Order does not specify the type or the extent of monitoring and sampling that will be required in the facility-wide groundwater monitoring plan, there is no basis for the commenters' suggestion that the Order is not cost-efficient. The Order requires the Respondents to submit work plans for investigation and monitoring of specific sites, and it specifies the general elements and objectives that must be included in the work plans, but allows the Respondents to develop the detailed, specific activities to be included in

the plans. It is expected that the Respondents will develop the work plans in consultation with the Department staff.

Order Modification: None.

72. Comment: (Page 42, Section IV.B, Investigation of Interim Status Units, SWMU's, and AOC's). The commenters request an opportunity to negotiate the schedule for these investigations with the Department. The commenters seek the opportunity to review the various prior investigations that they have conducted, which may satisfy the Department.

The commenters also state that it is counterproductive to prescribe technical requirements in too much detail in an Order.

Response: The Department agrees that the schedule for work plan submittal should be discussed with the Respondents prior to the issuance of the final Order. The Department has had such discussions with the Respondents. A provision is made in the Order (Section III.N) for reliance on work already completed. A summary of previous work conducted is required in Section X.B.5 of the Order. It is the responsibility of the Respondents, either through reference to previously-submitted documents or by providing new information, to demonstrate the adequacy and validity of such information.

The Department does not agree that a schedule should not be included in the Order. However, the Department agrees that the Order should include a provision allowing extensions of submittal dates for good cause shown.

The Department does not agree that the Order prescribes too much technical detail. Throughout Sections VIII and IX of the Order, alternative approaches are expressly allowed, provided they are first approved by the Department. For example, Section VIII.A.3.b, which addresses soil sampling methods, allows an "other method approved by the Department" (or similar wording) in at least four places. Of course, the Respondents would be required to provide justification for any proposed alternate methods.

Order Modification: Section III of the final Order was modified to add a provision allowing extensions of submittal deadlines for good cause shown.

73. Comment: (Page 45, Section IV.B.8, Newly Discovered SWMU's and AOC's). The commenters state that this provision essentially makes all future spills or contamination discovered at this Facility, regardless of when it occurs, subject to this Order. This is beyond RCRA jurisdiction.

Response: The Department agrees that any future spills that occur at the Facility or contamination that is discovered at the Facility would be subject to the Order, until the work under the Order is complete and the Order is terminated. After termination of the Order, spills or newly discovered contamination will be subject to the closure permit (or post-closure care permit) for the Facility. The Department disagrees that requiring the

Facility to address future spills or newly discovered contamination is beyond RCRA jurisdiction. It falls squarely within RCRA jurisdiction.

Order Modification: None.

M. SPECIFIC COMMENTS: MONITORING OF INTERIM REMEDIATION SYSTEMS

74. Comment: (Page 47, Section V, Monitoring of Interim Remediation Systems). The commenters assert that the schedule of dates to be met for various reports is not reasonable. They note that some of the dates have already passed. The commenters also state that the intent of the monitoring required under Section V.A.2 should be clarified, as certain wells were to be used only for hydraulic head monitoring. The commenters state again that the technical requirements of the Order are too prescriptive.

Response: The Department recognizes the need to revise the schedule in the final Order to reflect current conditions and the passage of time since the draft Order was prepared. The Department has also discussed the schedule with the Respondents.

The Department will require monitoring and sampling of wells based on their location, construction, and usefulness in assessing subsurface conditions at and in the vicinity of the Facility regardless of the Respondents' intended use. Sections IV and V of the Order require the Respondents to conduct groundwater monitoring under a Department-approved plan. The required monitoring includes monitoring of remediation systems, which overlap with facility-wide groundwater monitoring requirements.

Order Modification: The schedule in the final Order was revised based, in part, on discussions with the Respondents.

75. Comment: (Page 49, Section V.B.2, Monitoring). The commenters' indicated that the inclusion of all of the temporary wells (TP) wells in the facility-wide monitoring program is technically unnecessary. They argue that monitoring and reporting should only be required when it is determined to either be legally required to be done at a certain frequency under a regulation, or it legitimately advances the goals of corrective action by providing important information for the evaluation and decision-making process.

Response: The Department disagrees with this comment. Monitoring of the TP wells at the Facility is necessary to determine the nature and extent of contamination at the River Terrace, and to monitor the effectiveness of the River Terrace Remediation System. Groundwater contamination is present at the River Terrace at concentrations that exceed established groundwater cleanup levels. The Department approved monitoring of the River Terrace Remediation System, as proposed in the Respondents' October 28, 2005 work plan (as modified), in a letter dated November 23, 2005. The monitoring included monitoring of all TP wells at the River Terrace. This requirement was reiterated in Comment 9.a of the Department's letter dated November 2, 2006 in response to Giant's recommendations in the River Terrace six-month system monitoring report. The

commenters have not provided any grounds for reducing the monitoring that the Department has already approved.

Order Modification: None.

76. Comment: (Page 50, Section V.C). The commenters note that Section V.C of the draft Order states that industrial process water discharged to the Raw Water Ponds exceeds drinking water standards. They assert that the Department's concern "is not well founded." The commenters state they "should be encouraged to utilize non-drinking water for industrial purposes as opposed to fresh water, especially in the arid Four Corners region."

Response: Section V.C of the Order addresses the frequency of sampling of discharges of treated water containing petroleum constituents to the unlined Raw Water Ponds. The Section also addresses reporting requirements for analytical results and possible changes to the frequency of monitoring. Section V.C of the Order neither encourages nor discourages use of non-drinking water for industrial purposes.

Order Modification: None.

N. SPECIFIC COMMENTS: CORRECTIVE MEASURES

77. Comment: (Page 51, Section VI.A, Interim Measures). The commenters claim that the Interim Measures provision denies them due process by requiring them to perform whatever interim measures the Department deems necessary without any meaningful standards or bounds and without any avenue of review or dispute resolution

Response: The Department disagrees with this comment. Any interim measures required under this provision would be subject the same cleanup standards as all the other work to be conducted under the Order. Those cleanup standards are set forth in Part VII of the Order. Moreover, the EPA Administrative Order on Consent (Dec. 31, 1992), discussed in response to **Comment #49**, which the final Order effectively replaces, contained (page 5, section VI.1) a similar provision that allowed EPA to require interim measures at the Facility. EPA guidance on corrective action "emphasize[s] the importance of interim actions and site stabilization in the corrective action program."[86] In addition, the Department has added a dispute resolution provision to the final Order, thus giving the Respondents an avenue to dispute any interim measures that the Department requires.

Order Modification: None.

78. Comment: (Pages 52-53, 60-62, and 83-87, Sections VI, VII, and VIII). The commenters criticize at length the provisions in the Order addressing cleanup standards

[86] 61 Fed. Reg. 19432, 19446 (May 1, 1996).

and risk analysis. According to the commenters, the proposed process for selecting cleanup standards and performing risk assessments "is substantially inconsistent with current federal guidance on this issue, . . .is oddly out of step with today's RCRA corrective action program," and "is oddly reminiscent of the early years of the RCRA program (circa 1990) rather than the modern, post-1996 improvement and reform of the program led by EPA."

In particular, the commenters criticize the draft Order for proposing to select cleanup standards prior to conducting risk assessments, "which generally are used to help decide what the cleanup standards should be." They criticize the draft Order for setting standards based on a "worst-case residential exposure scenario." They criticize the draft Order for "[u]sing technical infeasibility as the sole alternative cleanup option to these standards," which "reflects a 1990 mindset that long has been rejected by Federal and all State regulators." They criticize the draft Order for setting "cleanup standards for contaminants not regulated under RCRA." The commenters also reference permits for other facilities that the Department has issued under the HWA "where corrective action has been drafted in accordance with the 'National Policies.'"

In addition, the commenters state that Paragraph VI.B.1 on page 52 is contradictory in that it requires Respondents to both conduct risk assessments and attain prescribed cleanup levels. And they state that Paragraph VI.C.3 on page 53 provides for the development of specific risk-based cleanup levels, which "are not appropriate and should be deleted as media cleanup standards are to be determined after Respondents perform risk assessments."

Finally, the commenters quote the hazardous waste permit for Rinchem, and conclude that the Department's policy is for the Respondents to propose cleanup standards based on a risk assessment, "not by unilateral most conservative or Federal or state background standards." They note that similar provisions are in the permit for Holloman Air Force Base.

Response: The Department disagrees with this comment. The Order provides for cleanup levels based on risk-based regulatory standards for ground and surface water, risk based screening levels for soils, and risk assessment for those contaminants for which there are no media-specific standards. This approach is entirely consistent with the federal program, today as in the 1990's. As EPA stated in its 1996 notice on corrective action:

> [I]n the RCRA corrective action program, EPA intends to clean up sites in a manner consistent with available, protective, risk-based media cleanup standards (e.g., MCLs[87] and state cleanup standards) or, when such standards do not exist, to clean up to protective media cleanup standards

[87] MCL's are maximum contaminant levels set under the federal Safe Drinking Water Act, 42 U.S.C. § 300g-1.

> developed for the site in question (e.g., through a site-specific risk assessment). Both approached require a risk-based decision.[88]

Under Section VII.A of the Order, groundwater cleanup levels are based on federal maximum contaminant levels[89] set by EPA under the Safe Drinking Water Act[90] or New Mexico water quality standards[91] set by the WQCC under the Water Quality Act.[92] If neither an MCL nor a water quality standard has been set for a particular contaminant, the cleanup level is set based on the EPA Region VI Human Health Medium-Specific Screening Level.

Under Section VII.B of the Order, soil cleanup levels are based on the Department's Technical Background Document for Development of Soil Screening Levels or the EPA Region VI Human Health Medium-Specific Screening Level. The soil screening levels are not set based on a "worst-case residential scenario" under either of these agency documents. Rather, the levels are set based on current and anticipated future land use, which may be residential or it may be industrial. If the current and anticipated future land use is one for which the Department or EPA has not established a screening level for a particular contaminant, a risk assessment is performed.

Under Section VII.C of the Order, surface water cleanup levels are based on federal and State surface water quality standards.

Each of the contaminants for which the Order sets cleanup standards, or provides for cleanup standards, is subject to corrective action and imminent hazard authority under the HWA and RCRA. The Department does not agree with the commenters' narrow view of that authority, as explained in response to **Comment #15**.

The Department disagrees that the provisions in the Order for setting cleanup standards are "out of step with today's RCRA corrective action program," that they are "reminiscent of the early years of the RCRA program (circa 1990)," or that they "reflect a 1990 mindset." The Department has frequently updated its corrective action policies for cleanup of contaminated media. The Department routinely updates the *Technical Background Document for Development of Soil Screening Levels* and *NMED Total Petroleum Hydrocarbon (TPH) Screening Guidelines* to incorporate updated toxicity and exposure information and industry-accepted changes in risk assessment techniques. The New Mexico Water Quality regulations are subject to triennial review and are periodically updated. The Department's corrective action policies are also consistent with EPA policies in that EPA policies do not explicitly relax requirements to protect

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[88] 61 Fed. Reg. 19432, 19449 (May 1, 1996).

[89] 40 C.F.R. part 141.

[90] 42 U.S.C. § 300f to 300j-26.

[91] 20.6.1.3103 NMAC.

[92] NMSA 1978, §§ 74-6-1 to 74-6-17.

human health and the environment. In fact, the EPA Region VI Media Specific Screening Levels are calculated using more stringent assumptions (e.g., cleanup levels for carcinogenic compounds based on the 10^{-6} cancer risk compared to New Mexico's use of a 10^{-5} cancer risk) that do not account for New Mexico-specific geologic and hydrologic conditions and priorities.

Sections VI.B.1 and VI.C.3 of the Order reference the procedures set forth in Section VII of the Order. Section VII provides the required approach to cleanup, as summarized above. Section VI.B.1 does not require a risk assessment, unless achievement of the cleanup goals is impractical.

Finally, the Department disagrees with the commenters' interpretation of the Rinchem, and the Holloman Air Force Base, permits. The Rinchem permit provides that cleanup standards must be set according to promulgated federal and State standards or "risk-derived standards." "Risk derived standards" are not necessarily risk assessment-derived standards, but also include, for example, soil screening levels. The Holloman Air Force Base Permit, Appendix 4-F Section I, specifically references the Department's *Technical Background Document for Development of Soil Screening Levels*, which is the document referenced in the Order, as setting the soil cleanup standards. Giant may conduct human health and ecological risk assessments at any site after investigation is complete. Such risk assessments must conform to NMED guidance and regulations as outlined in Section VII of the Order.

Order Modification: None

79. Comment: (Page 55, Section VI.C.7). The commenters correctly state that Section VI.C.7 of the Order provides that the Department will select a remedy or remedies for the site. The commenters then assert that it would be consistent with Department and federal policy to modify this language "so that the Department approves a remedy instead of selecting it." The commenters further assert that the permits for Rinchem and Holloman Air Force Base provide for Department approval, rather than selection, of the remedy.

Response: The Department disagrees with this comment. Both federal and State policy is for the regulatory agency to select the final remedy. EPA's proposed corrective action rule provides that "the Regional Administrator shall . . . select a remedy that, at a minimum, meets the standards listed in paragraph (a) of this section."[93] In the preamble to the proposed rule, EPA states that the rule "specifies certain decision criteria which will be considered by EPA in selecting the most appropriate remedy."[94]

The Holloman Air Force Base Permit, Part 4 Appendix 4-C, Page 7 Section F, Justification and Recommendation of the Corrective Measure or Measures states: "The

[93] 55 Fed. Reg. 30799, 30877 (proposed 40 C.F.R. § 264.525 (July 27, 1990).

[94] *Id.* at 30823.

Secretary will select the corrective measure alternative or alternatives to be implemented based on the results presented in the CMS [Corrective Measures Study] Report."

The Rinchem Permit, Module IV, Section IV.G.a states: "The CMS Final Report must contain adequate information to support the Secretary's decision on the recommended remedy, described under Permit Condition IV.H."

These permits clearly state that the Department selects, and does not merely approve, the corrective action remedy. The Department has followed this policy consistently in other permits and cleanup orders.

Order Modification: None.

80. Comment: (Page 57, Section VI.D.2). The commenters request that the 90-day requirement in Paragraph VI.D.2 be changed to at least 120 days (180 days is more reasonable) to allow adequate time to prepare the required content for the Corrective Measures Implementation Plan. The commenters observe that rushing a major project will just result in poorer decision making and less protection of public health and the environment in the long term. The commenters further base this request on the premise that EPA Region 6 "has already confirmed the lack of urgency at this site."

Response: The Department is not aware of any ruling by EPA regarding the urgency for cleanup at the Facility. The GPRA designation has been has been reversed, as explained in response to **Comment #10**.

The requirement for submitting a corrective measures implementation plan within 90 days after the Departments' selection of a remedy is not an inflexible one. The first sentence in Order Section VI.D.2 states that the Corrective Measures Implementation (CMI) Plan must be submitted within 90 days "or such other time as the Department determines." The Department will base the date for submittal of CMI Plans on the complexity of the selected remedies and other factors presented by the Respondents.

Order Modification: In response to this comment, the default requirement for submittal of Corrective Measures Implementation Plans in Section VI.D.2 of the final Order was changed from 90 days to 120 days.

O. SPECIFIC COMMENTS: CLEANUP AND SCREENING LEVELS

81. Comment: (Page 60, Section VII.A Groundwater Cleanup Levels). The commenters state that the cleanup standards do not appear appropriate for the moderately-saline perched groundwater (Class III type aquifer) beneath the refinery footprint, which groundwater has no present or reasonably foreseeable beneficial use.

Response: The Department disagrees with this comment. Refinery operations have not only resulted in groundwater contamination but it is likely that refinery operations have created the saline conditions in groundwater beneath the Facility. Giant is responsible for

cleaning up contamination caused by releases from refinery operations. Section 20.6.2.3101.A NMAC of the New Mexico Water Quality Regulations states that "[t]he purpose of Sections 20.6.2.3000 through 20.6.2.3114 NMAC controlling discharges onto or below the surface of the ground is to protect all ground water of the state of New Mexico which has an existing concentration of 10,000 mg/l or less TDS [total dissolved solids], for present and potential future use…." All groundwater in the state of New Mexico having a concentration of 10,000 mg/l or less TDS is presumed to be a possible and foreseeable source of water for beneficial use. New Mexico water quality standards are appropriate and applicable.

There is no Class III aquifer designation in the WQCC regulations. The term Class III aquifer comes from EPA Guidance (*Guidelines for Ground-Water Classification Under the [1984] EPA Ground-Water Protection Strategy*, Final Draft November, 1986) and refers to ground water that is not a source of drinking water. Subsequent to the issuance of that document, EPA issued a Ground-Water Policy in the National Contingency Plan for clean-up of contaminated ground water at CERCLA sites.[95] This policy notes that EPA will make use of state ground water classifications when determining appropriate remediation approaches for ground water, and that state classifications should supersede EPA classifications unless EPA's classification would result in a more stringent cleanup. Regardless, the State of New Mexico has authority over groundwater protection at the San Juan Refinery.

Order Modification: None

82. Comment: (Page 60, Section VII, Cleanup and Screening Levels). The commenters note that the Order refers in several places to the use of "screening guidelines" to establish cleanup levels. The commenters assert that in some cases the reference to screening guidelines is contrary to what other portions of the Order state. The commenters also assert that the use of a screening level as a cleanup level may be inappropriately conservative since by definition they were developed for screening purposes, and were not intended as cleanup goals (such is stated in EPA guidance). They state that the use of screening levels can limit the ability to conduct a site-specific risk assessment to determine more appropriate cleanup levels for the site, or can result in cleanup goals that are inconsistent with established risk-based goals. The commenters request that this section of the Order be rewritten "to make it consistent with federal RCRA corrective action policy and with [the Department's] implementation of RCRA corrective action at other New Mexico facilities."

Response: Although the term "screening guidelines" is used four times in the Order (in Section II.A.5, Section VII.A. and twice in Section VII.B), in each instance the term is part of the title *NMED Total Petroleum Hydrocarbon (TPH) Screening Guidelines*. The term "screening levels is used several times in Part VII of the Order.
Order Section VII.B considers risk-based cleanup based on anticipated future land use as does Order Section X.E (X.E.6). The screening levels referenced in NMED's Soil

[95] 55 Fed. Reg. 8732 (1990).

Screening Guidance (*Technical Background Document for Development of Soil Screening Levels*) are based on compound-specific cleanup levels using a hazard quotient of 1 for individual noncarcinogenic compounds and a 10^{-5} cancer risk for individual carcinogenic compounds. In cases where contamination involves multiple compounds, cleanup to concentrations meeting a hazard index of 1 for multiple noncarcinogenic compounds and a cumulative cancer risk of 10^{-5} for multiple carcinogenic compounds is required under the guidance. EPA uses a cancer risk of 10^{-6} for carcinogenic compounds which is more stringent than that required by NMED. Use of the screening levels may result in higher cleanup levels than would a risk assessment. At virtually every SWMU and AOC at the Facility, multiple contaminants have been released into the environment and any risk assessment must take into account the cumulative effect of these contaminants, which usually result in lower cleanup levels for the individual compounds present.

Order Modification: None.

83. Comment: (Page 60, Section VII.A, Groundwater Cleanup Levels). The commenters note that Section VII.A requires the Respondents to use the most recent version of the EPA Region 6 Human Health Medium-Specific Screening Level (HHMSSL) for tap water as the cleanup level for contaminants not subject to an MCL or water quality standard. They note that HHMSSL is a publication that calculates risk levels based on the carcinogenic risk goal of $1x10^{-6}$ for each individual chemical. They point out that Section VII provides that the Department has generally selected a target risk level of 10^{-5} for establishing cleanup levels for regulated substances. They conclude that the HHMSSL is inconsistent with State policy and with Section VII of the Order.

Response: Based on the results of historical groundwater sampling, the constituents detected in groundwater at the Facility that are subject to cleanup have established cleanup levels either as an MCL or a WQCC standard or are listed as WQCC toxic pollutants. If constituents are detected in groundwater at concentrations that exceed the tap water screening levels that do not have either a MCL or WQCC cleanup level, the Respondent may either conduct corrective action to achieve the tap water cleanup levels or complete a risk assessment to determine the compound-specific cleanup levels using a hazard quotient of 1 for noncarcinogenic compounds and a 10^{-5} cancer risk for carcinogenic compounds under the procedures included in Order Section VI.B.

Order Modification: None.

P. SPECIFIC COMMENTS: INVESTIGATION AND SAMPLING METHODS AND PROCEDURES

84. Comment: (Page 86, Section VIII.G, Ecological Risk Assessment Methods). The commenters recite the introductory paragraph of Section VIII.G, which states: "Based on the results of the scoping assessment, the Respondents shall demonstrate whether additional analyses are warranted. If the scoping assessment indicates that there is potential for ecological hazard, a screening-level ecological risk assessment shall be

conducted. Based upon the results of the screening assessment, a site specific ecological risk assessment may or may not be necessary." The commenters' assert they need the right to perform additional site analyses, without having to demonstrate their reasons, when such analyses will provide a better understanding of the site's risks. They request that the following statement be added to the end of the introductory paragraph: "If the screening level assessment identifies ecological risks, a site-specific risk assessment may be conducted to establish site-specific soil cleanup levels."

Response: The Respondents have the option to voluntarily conduct an ecological risk assessment independent of the Order at any site at the Facility. However, the Department might not accept the results of any assessment work not conducted pursuant to an approved work plan. All corrective action activities at the Facility are subject to Department approval.

Order Modification: None.

85. Comment: (Pages 63 through 99, Section VIII. Investigation and Sampling Methods and Procedures, and Section IX, Monitoring Well Construction Requirements). The commenters recognize that Sections VIII and IX "contain some guidance that may have relevance to the site." They state, however, that corrective action orders typically "do not include such purely technical guidance." The commenters request that these sections be removed from the Order, so as not to limit the technically-appropriate methods and procedures that may be proposed in the work plans Respondents will submit to the Department for approval. The commenters further state that if the Department declines to remove these sections, they reserve the right to submit detailed comments on these sections prior to accepting their contents.

Response: Sections VIII and IX are not guidance, but are substantive requirements of the Order. Similar sections have been included in all other orders and permits that the Department has issued recently (e.g., LANL Order Under the Hazardous Waste Act §§ 74-4-10.1 and 74-4-13 [Nov. 26, 2002], Navajo Refining Company Artesia Refinery Post-Closure Care Permit [September2003]). The purpose of the requirements is to ensure the consistency of corrective action activities and also to ensure that the data generated is valid and defensible. These requirements are based on, and in many ways very similar to, EPA technical documents such as the *RCRA Ground Water Monitoring Technical Enforcement Guidance Document* (OSWER-9950.1-a) July 1987 and (SW-846) *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*. The requirements in these sections are also based on standard industry practices, many of which originated from EPA guidance.

The comment period ended on August 21, 2006. The Department considers and responds to all comments received by the expiration of a public comment period.

Order Modification: None.