Hercules, Inc., Hattiesburg, Mississippi RCRA Records previously released:

1. Analytical Results of Roll-Off Box Samples Report, Hercules Incorporated – Hattiesburg facility

2. Letter from Michael Roe to Larry Lamberth, Michael Norman, and Chris Sanders, subject Submission of Final follow-up Area #1 Letter (06/24/14)

3. Letter from Jeffrey Pallas to Kristina Woods, subject executed RCRA Section 3008 (h) Administrative Order on Consent (07/07/14)

4. Various emails originated or addressed to Colleen Michuda, Javier Garcia, Meredith Anderson or other personnel pertaining to Hercules (10/2013-1/2016)

5. William Cox, Freedom of Information Act requests and response (EPA-R4-2015-010714 & EPA-R4-2015-010715)

6. Various emails between Colleen Michuda and William S. "Buddy" Cox, subject pertaining to Hercules (11/2015 – 1/2016)

7. Letter from Cesar Zapata and Colleen Michuda to John Brunini, subject Supplemental Information Request, Hercules Incorporated, Hattiesburg, Mississippi (04/21/15)

8. Letter from John Brunini to Colleen Michuda, subject extension of time Supplemental Information Request (05/20/15)

9. Letter from John Brunini to Colleen Michuda, subject Hercules Hattiesburg, Mississippi facility-Poly-Pale and IB ph documents (06/09/15)

10. Letter from Colleen Michuda and Lisa Outzts, subject Re: Application of K041 Listing to sludge in the Hercules Impoundment Basin and Sludge Pits (11/25/15)

11. Various emails addressed to or from Colleen Michuda and John Brunini (Butler Snow LLP) and Amy Champagne (Baker Donelson) pertaining to Hercules Hattiesburg facility (May 2015-December 2015)

12. Letter from John Brunini to Colleen Michuda, subject Hercules Hattiesburg Mississippi Facility Poly-Pale and IB pH documents (6/25/15)

13. Letter from John Brunini to Colleen Michuda, subject Search of Relativity Database, Hercules Facility, Hattiesburg (11/10/15)

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4	10706608	9/22/1980	REPORT OF INVESTIGATION PRELIMINARY GROUNDWATER MONITORING STUDY FOR HERCULES, INC., HATTIESBURG, MS.		2,597	27
4	10706626	9/30/1980	POTENTIAL HAZARDOUS WASTE SITE INSPECTION REPORT, HERCULES INC.		326	11
4	10706627	10/16/1980	POTENTIAL HAZARDOUS WASTE SITE TENTATIVE DISPOSITION, HERCULES INC.		96	2
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4	10706616	12/15/1989	LETTER FROM JIM HARDAGE, MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES TO NARINDAR KUMAR, USEPA TRANSMITTING PRELIMINARY ASSESSMENT REPORT FOR HERCULES, INC.		21,489	222
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4	10706618	6/12/1992	LETTER FROM JAMES B. OBRIEN, B & V WASTE SCIENCE & TECHNOLOGY, CORP TO AL HANKE, USEPA TRANSMITTING DRAFT FIELD STUDY PLANS.		1,329	20

4	10706619	7/30/1992	LETTER FROM JAMES B. OBRIEN, B & V WASTE SCIENCE & TECHNOLOGY. CORP TO BRIAN FARRIER, USEPA TRANSMITTING REVISED FIELD STUDY FOR RESAMPLING AT HERCULES, INC.	1,225	18
4	10706620	8/4/1992	LETTER FROM BRIAN G. FARRIER, USEPA TO CHARLES JORDAN, HERCULES, INC REGARDING HERCULES SITE INVESTIGATION - AUGUST 14, 1992.	515	1
4	10706621	8/10/1992	LETTER FROM BRIAN G. FARRIER, USEPA TO CHARLES JORDAN, HERCULES, INC REGARDING HERCULES, INC SITE INVESTIGATION.	560	2
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4	10706622	9/30/1992	LETTER FROM JAMES B. OBRIEN, B&V WASTE SCIENCE AND TECHNOLOGY CORP. TO BRIAN FARRIER, USEPA TRANSMITTING DRAFT PORTIONS OF HERCULES, INC. SITE INSPECTION REPORT.	2,340	11

4	10706614	10/6/1992	MEMORANDUM FROM ROBERT KNIGHT, USEPA TO JOE SLYKERMAN TRANSMITTING RESULTS OF METALS ANALYSIS.	276	10
4	10706615	10/6/1992	MEMORANDUM FROM ROBERT KNIGHT, USEPA TO JOE SLYKERMAN TRANSMITTING RESULTS OF SPECIFIED ANALYSIS.	3,443	106
4	10706607	4/29/1993	SITE INSPECTION REPORT, HERCULES, INC.	50,608	588
4	10801643	4/29/1993	[REDACTED] SITE INSPECTION REPORT, HERCULES, INC.	50,983	588
4	10988956	9/19/2011	REVISED PHASE I SAMPLING AND ANALYSIS WORK PLAN. APPENDIX C TO APPENDIX D.	342,368	928
4	10988957	9/19/2011	REVISED PHASE I SAMPLING AND ANALYSIS WORK PLAN.	467,249	1823
4	11025379	11/21/2011	MEMORANDUM FROM OFIA HODOH, USEPA TO MEREDITH ANDERSON. SUBJECT: REVIEW OF REVISED PHASE I SAMPLING AND ANALYSIS WORKPLAN, HERCULES INCORPORATED, HATTIESBURG, MS.	295	4
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4	11012868	6/12/2015	MEMORANDUM FROM STACY KOWALSKI, OTIE TO RALPH HOWARD, USEPA. SUBJECT: PRELIMINARY HAZARD RANKING SYSTEM SCORE, REVISION 0.	1,698	16
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
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April 28, 2016

Via Electronic Mail and U.S. Mail

Mr. John Brunini
Butler Snow LLP
P.O. Box 6010
Ridgeland, Mississippi 39158-6010

Re: EPA and MDEQ Response to Hercules' January 4, 2016 K041 Letter

Dear Mr. Brunini:

The U.S. Environmental Protection Agency and the Mississippi Department of Environmental Quality have reviewed Hercules Incorporated's (Hercules) most recent January 4, 2016 letter (hereinafter, the "January 4th letter") regarding the applicability of the K041 hazardous waste listing to the Impoundment Basin (IB) sludges at the Hattiesburg facility. The agencies have considered the additional materials and arguments set forth in this January 4th letter; however, as MDEQ confirmed in its February 5, 2016 clarification letter to Hercules regarding the disposal of the K041 sludge at the facility, the position of the agencies has not changed from that set forth in our November 25, 2015 response (hereinafter, the "November 25th letter"). There is no dispute that Hercules produced toxaphene at the Hattiesburg facility and that wastes from such production were managed in the IB. For purposes of characterizing the sludge for disposal, the K041 listing, as clarified by the mixture rule, applies, resulting in the entirety of the sludge within, or excavated from, the IB carrying the K041 listed waste code. This letter builds upon and complements the agencies' November 25th letter.

I. The logical source of the toxaphene contamination in the IB is the production of toxaphene at the Hattiesburg facility.

Similar to Hercules' October 5, 2015 letter (hereinafter, the "October 5th letter") on this same issue, the January 4th letter begins with a discussion of the source of the toxaphene contamination in the IB. Hercules raises a plethora of potential "sources" of the toxaphene, not just within the IB, but within the entire Hercules facility, the City of Hattiesburg, and the State of Mississippi. *See* January 4th letter at pp. 2-4. Although informative, Hercules' research into the history of toxaphene use in the United States should not distract from the undisputed facts that: 1) over 27 million pounds of toxaphene were produced at the Hattiesburg facility from 1951-1952 (*see* Enclosure 1 to the agencies' November 25th letter); 2) that wastewaters from the production of toxaphene were sent to the IB for treatment (*see* Enclosure 2 to the agencies' November 25th letter); 3) that toxaphene was detected in the IB sludge (even after stabilization) at levels up to 75 mg/kg (*see* Enclosure 1); and 4) that toxaphene has been found at even higher concentrations in native soils at the base of the IB, with December 2015 results from Cell 3 as high as 790 mg/kg (*see* Enclosure 1). Further bolstering the conclusion that the toxaphene in the IB is the result of the production of toxaphene at the facility is documentation showing that the IB was originally constructed in the early 1950s in part to manage effluent from the toxaphene production area (*see* Enclosure 2). It would

be illogical, given all of the documentary evidence, to conclude that toxaphene contamination found in the very unit built to manage toxaphene wastes, did not come from the production of toxaphene.

In arguing that the source of the toxaphene contamination in the IB is "inconclusive," Hercules also states that "the numerous cleanouts of sludge in the IB" that occurred over several decades "could well have removed all sludge resulting from toxaphene production. . . ." *See* January 4th letter at p. 2. This assertion about the effectiveness of Hercules' removal campaigns in the IB stands in sharp contrast to the position that Hercules took in December 2011 where it argued that the "limitations on sludge removal imposed by the designs of the Lagoon Sludge Pumpers" and the "physical constraints of the IB that affected the sludge removal process" resulted in the continued presence of pre-1990 sludge in the IB. *See* December 14, 2011 Position Paper, Attachment III. Hercules made this prior argument when it was trying to show that any characteristically hazardous benzene found in the IB must have been the result of "historic" benzene that could not have been removed during the facility's removal campaigns. Hercules now argues that all "historic" toxaphene contamination was in fact removed during these prior removal campaigns. *See* January 4th letter at p. 2. Hercules cannot have it both ways. The EPA addressed the presence of historical contamination in the IB and the "active management" thereof in its July 8, 2013, letter to Hercules. As a result, we will not repeat those arguments here. The reality is that prior information about removal campaigns in the IB and the presence of both characteristically hazardous benzene and toxaphene in the IB indicates that hazardous wastes have been historically generated, stored, and actively managed in the IB.

As additional support for its argument that the source of the toxaphene at the facility is "inconclusive," Hercules, in its October 5th letter, and again in its January 4th letter, relies in large part on the EPA's October 14, 1998 Memorandum entitled "Management of Remediation Wastes" (hereinafter, "Remediation Waste Memo"). As discussed in the agencies' November 25th letter, the agencies used available site information to determine the source of the toxaphene contamination in the IB. This approach is consistent with and supported by the Remediation Waste Memo.[1] *See* November 25th letter at pp. 2-3.

II. The K041 listing, in conjunction with application of the mixture rule, extends the K041 listing to the sludges in the IB.

In both its October 5th and January 4th letters, Hercules relies on the text of the K041 listing, without regard to the mixture rule, to falsely conclude that the listing only applies to toxaphene sludges formed exclusively from toxaphene wastewaters. Hercules also distorts and exploits the procedural history of the mixture and derived-from rules to erroneously conclude that the mixture rule itself has never been valid in the State of Mississippi and is therefore inapplicable to the Hercules sludges. The agencies will address each of these arguments in turn.

A. The K041 listing must be read in conjunction with the mixture rule.

As a threshold matter, the K041 listing was one of 85 process wastes originally listed by the EPA in 1980 as part of the first phase of implementation of Section 3001 of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6921. *See* 45 Fed. Reg. 33,084 (May 19, 1980). Although Hercules tries to draw a distinction between the language of the K041 listing and "the language of comparable waste

[1] Hercules' reliance on the 1998 Remediation Waste Memo to support its position on the applicability of the K041 listing to the IB sludges is curious given Hercules' sharp criticism of the agencies' purported reliance on the EPA's September 13, 1999 Memorandum entitled "Sludges from Wastewater Mixtures" (hereinafter, "Sludge Memo") and the K041 Background Listing Document, which Hercules claims is unlawful. *See* January 4th letter at p. 9. The agencies address this issue in Section III below.

listings," the reality is that the vast majority of these early EPA listings contained text that was very similar to that contained in the K041 listing.[2] *See* 45 Fed. Reg. at 33,123-124. Only one of these original listed wastes (K030) contained any type of language referencing mixtures or commingled wastes in the text of the listing.[3] Notwithstanding the absence of this type of explicit language in the text of the individual listings, it has always been the EPA's intent to cover waste mixtures containing listed wastes. In fact, to clarify the intent of these original listings, and in response to comments about their scope, the EPA included the "mixture" and "derived-from" rules in the final May 1980 rulemaking. By including these rules, the EPA confirmed that it had always been the EPA's intention that "waste mixtures containing listed hazardous wastes" would be considered hazardous wastes and managed accordingly. *See* 45 Fed. Reg. at 33,095. Otherwise, "generators could evade Subtitle C requirements simply by commingling listed wastes with nonhazardous solid waste." *Id.* Thus, in light of the EPA's express inclusion of the mixture and derived-from rules in the final 1980 rulemaking, there would have been no need to amend the text of each specific listed waste to make clear what was already covered by operation of the mixture and derived-from rules. By virtue of the mixture rule, *every listing* includes waste mixtures.

As referenced above, given the context and the timing of the K041 listing, there would have been no need to modify the text of the listing to specifically reference "mixtures" or "commingled" wastes given the contemporaneous promulgation of the mixture and derived-from rules; however, Hercules relies on the absence of such wording to erroneously conclude that the listing does not cover sludges generated from commingled waste streams. *See* January 4th letter at pp. 5-6. Hercules' argument relies in large part upon the 7th Circuit's decision in *United States v. Bethlehem Steel Corp.*, 38 F.3d 826 (7th Cir. 1994), as well as the language of other waste listings, specifically F001-F005 and K174. *See id.* With respect to the *Bethlehem Steel* opinion, the agencies stand behind their position that this case was wrongly decided and is not binding outside the 7th Circuit. *See* November 25th letter at p. 6. Notably, the Court decided *Bethlehem Steel* shortly after the mixture rule was invalidated by the D.C. Circuit Court in *Shell Oil Co. v. EPA*, 950 F.2d 741 (D.C. Cir. 1991). In addition, the offending activities at issue in the *Bethlehem Steel* case occurred during the time that the mixture rule had been vacated. As a result, the Court relied on the perceived absence of a valid mixture rule in concluding that the sludges at issue could not constitute F006 sludges. *See Bethlehem* Steel, 38 F.3d at 870. In contrast to *Bethlehem Steel,* and as discussed below in Section II.B. of this letter, there is no question that a valid mixture rule is currently in place as a matter of state and federal law in Mississippi. As a result, sludges excavated from the IB for disposal during the IB decommissioning activities are properly characterized as K041 via application of the K041 listing in conjunction with the mixture rule.[4]

The *Bethlehem Steel* Court also cited the text of the F001-F005 listings as a significant factor in its decision. The Court reasoned that because the F006 listing, unlike the F001-F005 listings, did not include words like "partly," "mixed with," or "in trace amount[s]," that the listing did not cover sludges that had been mixed with other wastes. *See Bethlehem Steel,* 38 F.3d at 869. Although not discussed in the *Bethlehem Steel* decision, the F001-F005 listings are distinguishable in that they concern specific spent solvents rather than wastewaters or wastewater sludges. Notably, the F001-F005 listings did not originally contain language referencing "mixtures." Rather, the listings were specifically amended in 1985 to add this language in light of the industry's practice of using solvent blends, as opposed to pure solvents, in

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[2] For example, several of the original wastewater treatment sludge listings mirror the wording of the K041 listing. *See, e.g.*, K002-K007, K040, K044, and K046 (45 Fed. Reg. at 33,123-124).

[3] K030 was designated as "column bottoms or heavy ends *from the combined production* of trichloroethylene and perchloroethylene." *See* 45 Fed. Reg. at 33,123.

[4] The issue before the agencies is whether the sludges excavated for disposal from the IB are K041 wastes. The answer is yes. The agencies also note that these same sludges were actively managed within the IB from the 1970s until at least 2002, making the IB a RCRA regulated unit that continued to store K041 wastes without a permit.

degreasing. *See generally* 50 Fed. Reg. 18,378 (Apr. 30, 1985). In proposing to amend the listings, the EPA stated:

> EPA is concerned that the present interpretation of the solvent listings allows many toxic spent solvent wastes to remain unregulated. The Agency has determined that a diverse group of industries (*e.g.*, printing, coatings, furniture, chemicals and shoe industries) use solvent mixtures. For example, the majority of solvents used in degreasing operations are blends. Although some generators may mix solvents on-site, the majority of solvent blends used in industry are commercial solvent mixtures. Solvents are typically and frequently blended to achieve increased solvent power, faster drying, and to decrease flammability. These virgin solvent mixtures typically contain from 15-50 percent or more of chlorinated solvents. In general, blends will contain 50 percent or more total solvents.

Id. at 18,378. Thus, there was a specific industry practice that was of concern to the EPA with respect to the use of solvent blends which prompted the clarifying language in the listings. In contrast, where wastewaters and sludges are concerned, the EPA has always recognized that "in real-world waste management, many hazardous wastes are mixed with non-hazardous wastes or other hazardous wastes during storage, treatment, or disposal." *See* 45 Fed. Reg. at 33,095.

Hercules also cites to the K174 sludge listing to conclude that the absence of similar specificity in the K041 listing negates the listing for anything but pure toxaphene sludges. *See* January 4th letter at pp. 4-5. There is no question that the listing for K174 sludges is clear in its coverage and lacks the ambiguity that Hercules argues is present in virtually all of the other sludge listings. The text of the K174 listing specifically includes sludges from "commingled ethylene dichloride [EDC] or vinyl chloride monomer [VCM] wastewater *and other wastewater*." 40 C.F.R. § 261.32 (emphasis added). Notably, the K174 listing is the *only* sludge listing that includes explicit language referencing commingled wastewaters. In promulgating this listing, the EPA noted that it had studied 12 facilities that produced EDC/VCM sludges and that the EDC/VCM wastewaters were often mixed with other wastewaters. *See* 64 Fed. Reg. 46,476, 46,506 (Aug. 25, 1999). As a result, the Agency specified:

> [T]the listing determination proposed today for EDC/VCM wastewater treatment sludges affects the total quantity of the sludges generated by a wastewater treatment system that accepts influent from any process manufacturing EDC and/or VCM. EPA has made this clear by including sludges from commingled EDC/VCM wastewater and other wastewater within the scope of the listing, *although EPA believes this would have been the correct interpretation of the listing even absent the clarifying language*.

Id. (emphasis added). Hercules cannot cite to this one listing description, promulgated 20 years after the K041 listing and resulting from extensive study of the chlorinated aliphatics industry, to conclude that all of the other sludge listings are deficient in their coverage of mixtures. This is especially true given that the EPA specifically noted that the listing would have applied to the sludges from the commingled EDC/VCM wastewater streams even without the additional clarifying language.

B. The mixture rule is effective in the State of Mississippi as a matter of state and federal law.

In its January 4th letter, Hercules misinterprets the import and effect of federal authorization, as well as the regulatory history of the mixture rule, to somehow conclude that Mississippi has never had a valid mixture rule in effect in the State. In contrast to these assertions, Mississippi adopted the original mixture and derived-from rules in 1983, the reinstated mixture and derived-from rules in 1992, and the finalized and revised mixture and derived-from rules in 2005. Each of these adoptions resulted in the incorporation of these rules into the State hazardous waste program. Federal authorization of those rules occurred first in 1984 and again in 2008.

1. The state authorization process makes state hazardous waste regulations federally enforceable, but does not alter their effectiveness as a matter of state law.

Before the agencies can correct Hercules' misunderstanding of the authorization status of the mixture rule in the State of Mississippi, the agencies must first clarify Hercules' misstatements regarding state authorization in general. Pursuant to Section 3006 of RCRA, 42 U.S.C. § 6926, the EPA may authorize states to carry out a hazardous waste program "in lieu of" the federal RCRA program. To obtain authorization, state programs must be "consistent with" and no less stringent than the federal program. *See* 42 U.S.C. § 6926(b); 40 C.F.R. § 271.4. Once authorized, the authorized state regulations are federally enforceable and operate in lieu of their federal analogs. *See* 42 U.S.C. § 6926(b). The EPA's authorization of a particular state regulation does not affect that regulation's enforceability or effectiveness as a matter of state law. *See, e.g.*, 80 Fed. Reg. 14847, 14849 (March 20, 2015) (authorizing the State of Tennessee for program revisions and stating: "This action does not impose additional requirements on the regulated community because the regulations for which Tennessee is being authorized by today's action are already effective and enforceable requirements under State law, and are not changed by today's action").

The EPA authorized the State of Mississippi on June 13, 1984 for what is often referred to as the "base" RCRA Program. *See* 49 Fed. Reg. 24,377 (June 13, 1984). The mixture and derived-from rules were included in this original authorization. Then, on June 28, 1992, Mississippi adopted the 1992 mixture and derived-from rules reinstatement as part of Mississippi's hazardous waste regulations. *See* Enclosure 3. As discussed in the agencies' November 25th letter, because the 1992 federal rule simply reinstated the prior mixture and derived-from rules, states that were already authorized for the mixture and derived-from rules (like Mississippi) were not required to seek re-authorization for such rules. *See* November 25th letter at p. 7. Hercules places significant emphasis on Mississippi's September 2014 program revision application, which included a request to be authorized for Checklist 117A (the 1992 reinstated mixture and derived-from rules). As the State has pointed out in its April 27, 2016 letter to the EPA (Enclosure 3), Checklist 117A was included in the September 2014 authorization application in an effort to pick up outstanding Checklists for which the State had not previously sought authorization. Given the State's authorization for the 2001 final mixture and derived-from rules, authorization for the interim rule is now moot. Notwithstanding the lack of federal authorization for Checklist 117A, and consistent with the discussion above, the 1992 federal rule was lawfully promulgated and adopted into State law on June 28, 1992, so it has been fully effective and applicable to the Hercules facility even without federal authorization since that time.[5]

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[5] Although the federal mixture and derived-from rules were vacated by the D.C. Circuit Court as a result of the *Shell Oil* decision, the D.C. Circuit Court's decision did not necessarily invalidate the Mississippi mixture and derived-from rules. *See generally State of Arizona v. Carey*, 920 P.2d 1, 3 (Ariz. Ct. App. 1995) (finding no procedural defect in the adoption of Arizona's mixture rule thereby concluding that the invalidation of the federal rule had "no effect on the validity" of the state

2. Mississippi sought and received authorization for the final 2001 mixture and derived-from rules.

As discussed above, Mississippi adopted the mixture and derived-from rules in 1983 and was authorized for such rules in 1984. Mississippi incorporated the federal reinstatement of the mixture and derived-from rules into its State hazardous waste regulations in June 1992. In September 2005, Mississippi adopted the 2001 revised and finalized mixture and derived-from rules. EPA authorized Mississippi for the 2001 rules on August 4, 2008. *See* 73 Fed. Reg. 45,170 (Aug. 4, 2008). As a result, even if Hercules disagrees on the history of the mixture and derived-from rules in the State, there is no question that as of 2008, Mississippi law includes a federally authorized mixture rule.

In a final effort to argue that the mixture rule does not apply in Mississippi, Hercules asserts that by adopting the 2001 final mixture and derived-from rules, Mississippi was only adopting "revisions" to those rules, but not the underlying rules. The 2001 federal rule did not simply promulgate revisions to the mixture and derived-from rules; it both *finalized and revised* the original mixture and derived-from rules. It is important to remember that the *Shell Oil* decision struck down the federal mixture and derived-from rules based solely on procedural grounds, finding that the rules had been promulgated without proper notice and comment. In the years that passed after the 1992 reinstatement of the rules, the EPA sought comment on the rules and proposed certain revisions in light of those comments. The 2001 rulemaking represented the culmination of these efforts by retaining the mixture and derived-from rules and promulgating revisions to those rules. *See* 66 Fed. Reg. 27,266, 27,269 (May 16, 2001). By adopting the 2001 federal rule, Mississippi adopted the finalized mixture and derived-from rules with revisions.

III. The agencies' use of background documents and policy statements is wholly acceptable and appropriate in interpreting a waste listing.

In another attempt to undermine the agencies' interpretation of the scope of the K041 listing, Hercules sharply criticizes the agencies' citation to the K041 Background Listing Document, as well as the 1999 Sludge Memo, to support the agencies' interpretation of the listing. According to Hercules, the agencies' use of these types of background/interpretive documents is unlawful. *See* January 4th letter at p. 8. Hercules seems to have forgotten that it was the first to invoke the K041 Background Listing Document to support its own interpretation that the K041 listing does not apply to the IB sludges. *See* October 5th letter at p. 5 (stating that Hercules' conclusion "is reinforced by the 1980 Listing Background Document for K041"). Certainly Hercules is not arguing that its own use of this document is unlawful. As discussed above, the text of the K041 listing, in conjunction with the mixture rule, supports the agencies' interpretation of the scope of the listing, even without reference to the Background Listing Document or Sludge Memo. The agencies' use of the K041 Background Listing Document in its November 25th letter

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rule). However, during the time of the federal vacatur, these rules would not have been part of the federally-authorized program because they would have been considered to be more extensive than, or broader in scope, than the federal regulations. *See, e.g., In re Hardin County*, 5 E.A.D. 189, 206 (Apr. 12, 1994) (finding that the Ohio mixture rule was broader in scope because "it regulates a larger community and more waste than a federal program without a mixture rule"). As Hercules notes, Section 17-17-27(1)(j) of the Mississippi Code states that Mississippi can promulgate "other rules and regulations as the commission deems necessary to manage hazardous wastes in the State, provided that such rules and regulations shall be equivalent to the United States Environmental Protection Agency's rules and regulations." Miss. Code § 17-17-27(1)(j). Mississippi's authority to promulgate rules regarding when wastes or combinations of wastes are hazardous is found in Section 17-17-27(1)(a) of the Mississippi Code, which gives the State authority to adopt "criteria for the determination of whether any waste or combination of wastes is hazardous for the purposes of this chapter." Miss. Code § 17-17-27(1)(a). Even if Section 17-17-27(1)(j) was interpreted to limit Mississippi's authority to have a mixture rule absent a federal analog, the issue became moot when Mississippi adopted the reinstated mixture rule in 1992.

served to contradict the erroneous conclusions Hercules attempted to draw from that document. *See* November 25th letter at pp. 3-6 for an additional discussion of why the K041 Background Listing Document supports the agencies' conclusion with respect to the IB sludges.

Hercules similarly criticizes the agencies' use of the September 13, 1999 Sludge Memo in support of its argument that sludges formed from mixed wastewaters are covered by the K041 listing. It appears that Hercules seeks to use agency policy statements when it believes that the documents support Hercules' position (e.g., Hercules' reliance on the 1998 Remediation Waste Memo), but when the documents contradict Hercules' position, it claims that their use is unlawful. As discussed above, the text of the K041 listing, coupled with the mixture rule, support the agencies' finding that all of the sludges are K041, even without reference to the Background Listing Document or the Sludge Memo; however, it is important to note that agency policy memoranda and interpretive statements are critical components to any evaluation of the scope of a regulation in the event the text is determined to be unclear or ambiguous.

In general, in in determining the scope of a particular regulation, it is appropriate to start with the regulatory text. *See, e.g., In re Howmet Corp.*, 13 E.A.D. 272, 293 (May 24, 2007). The analysis will then turn to "the regulations as a whole, their regulatory history, and the Agency's post-promulgation interpretive statements" to determine the meaning of the regulation. *Id.; see also In re: Carbon Injection Systems, LLC*, 2016 EPA App. LEXIS 7, at *48 (analyzing the meaning of a regulation and looking to "EPA interpretations advanced in rulemaking preambles and EPA policy statements"). A regulation must also be "interpreted so as to harmonize with and further and not conflict with the objective of the statute it implements." *In re Howmet*, 13 E.A.D. at 282. Thus, in contrast to Hercules' assertions, the agencies have made appropriate inquiry to determine the meaning and scope of the K041 listing. The text of the listing, coupled with the mixture rule, clearly places the IB sludges within the scope of the K041 listing. This finding is further supported by the regulatory history of the mixture rule, Background Listing documents, and EPA interpretive/policy memoranda.

IV. Hercules had fair notice that the scope of the K041 listing would cover its IB sludges.

Given the consistent history of the EPA's interpretation of the mixture rule, Hercules cannot now argue that the EPA did not provide "ascertainably certain" notice to Hercules that the listing would apply. *See* January 4th letter at pp. 11-12. Courts have found that an agency has "fairly notified" a regulated party of required or prohibited conduct "[i]f, by reviewing the regulations and other public statements issued by the agency, a regulated party acting in good faith would be able to identify, with 'ascertainable certainty,' the standards with which the agency expects parties to conform." *General Electric Co. v. EPA*, 53 F.3d 1324, 1329 (D.C. Cir. 1995) (citing *Diamond Roofing Co. v. OSHRC*, 528 F.2d 645, 649 (5th Cir. 1976). Because the lack of adequate notice is an affirmative defense to liability, Hercules bears the burden of establishing that it did not receive such notice. *See Howmet*, 13 E.A.D. at 303. In determining whether a party received fair notice of the applicability of a regulation, the analysis will first turn to the text of the regulation. *Id.* at 305. Even if the text is ambiguous, such ambiguity alone does not support a lack of fair notice. The evaluation will proceed to an analysis of the regulation as a whole, the regulatory history, and any interpretive statements of the agency. *Id.* at 306. Notably, not only do agency policy memoranda and interpretive statements play a critical role in evaluating the scope of a regulation, these documents also significantly inform the fair notice question. The Environmental Appeals Board recently recognized:

> Agency interpretations of the regulation – both publicly-released interpretations and interpretations provided directly to the party in question – also can have a decisive impact on the fair notice question. An agency's interpretation of a regulation can resolve ambiguities in regulatory language and make the meaning of the regulation ascertainably certain to regulated parties.

Carbon Injection Systems, 2016 EPA App. LEXIS at *60; *see also Howmet Corp. v. EPA*, 614 F.3d 544, 554 (D.C. Cir. 2010) (recognizing that "published agency guidance may provide fair notice of an agency's interpretation of its own regulations").

Throughout the lengthy history of the mixture rule, the EPA has always maintained the position that individual listings are intended to cover waste mixtures. This position was originally introduced in the Agency's May 1980 rulemaking and has been reaffirmed in subsequent rulemakings regarding the mixture and derived-from rules. *See generally* 45 Fed. Reg. 33,084 (May 19, 1980); 57 Fed. Reg. 7628 (Mar. 3, 1992); 66 Fed. Reg. 27,266 (May 16, 2001). The EPA again affirmed this position in its 1999 Sludge Memo. As the Environmental Appeals Board noted in *Howmet*, the record here "depicts a sophisticated entity well versed with RCRA and well equipped to avail itself of Agency guidance." Hercules cannot now argue it did not have fair notice that the K041 listing would extend to its sludges.

V. Conclusion

As stated above, the position of the agencies has not changed since our November 25th letter. The sludges that Hercules has excavated from the IB are properly characterized as hazardous waste. The agencies appreciate Hercules' cooperation in proceeding with the disposal of the sludge consistent with that characterization. This determination also has consequences with respect to the regulatory status of both the IB and the Sludge Pits. We look forward to discussing these issues with you in the near future.

Sincerely,

Colleen E. Michuda
Senior Attorney
U.S. Environmental Protection Agency, Region 4

Lisa T. Ouzts
Senior Attorney
Mississippi Department of Environmental Quality

Enclosures

cc: Tim Hassett, Hercules (via email)
John Ellis, ARCADIS (via email)

Enclosure 1

ARCADIS

Table 4. DRAFT - Summary of Toxaphene Data, Sludge Samples (Post-Solidification), 2015 Activities, Hercules Incorporated, Hattiesburg, Mississippi, MDEQ AI No. 2022.

Date Collected:	Federal (RCRA-TCLP) Hazardous Waste Criteria[1]	LDR Universal Treatment Standards	Unit	Cell 3								Cell 5					
				09/09/15	09/09/15	09/09/15	09/09/15	09/15/15	09/15/15	09/15/15	09/15/15	09/03/15	09/03/15	09/03/15	09/03/15	09/03/15	09/03/15
Location ID:				IBS3-05-090915	IBS3-06-090915	IBS3-07-090915	IBS3-08-090915	IBS3-09-091515	IBS3-10-091515	IBS3-11-091515	IBS3-12-091515	IBS5-03-090315	IBS5-04-090315	IBS5-05-090315	IBS5-06-090315	IBS5-07-090315	IBS5-08-090315
Organochlorine Pesticides - Method 8081B																	
Total Toxaphene	--	2.6	mg/kg	5.8	9.7	22	8.3F2	13	75	20	7.3	NA	<2.8	<2.9	NA	<2.4	<2.7
Organochlorine Pesticides (TCLP) - Method 8081B																	
TCLP Toxaphene	0.5	--	mg/L	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	<0.10	NA	NA	<0.10	NA	NA
General Chemistry																	
Percent Moisture	--	--	%	31	23	21	27	32	32	31	30	NA	NA	NA	NA	NA	NA
Percent Solids	--	--	%	69	77	79	73	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note: Gray shading indicates that a detection exceeds the Federal (RCRA-TCLP) Hazardous Waste Criteria standard.
Yellow shading indicates that a detection exceeds the LDR Universal Treatment Standards.
[1] - Regulatory Limits obtained from 40 CFR Part 261.
-- - Standard not promulgated.
Bold - Compound detected.
CFR - Code of Federal Regulations.
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits.
J - Indicates an estimated value.
LDR - Land Disposal Restrictions.
mg/kg - Milligram per kilogram.
mg/L - Milligram per liter.
MS - Matrix Spike.
MSD - Matrix Spike Duplicate.
NA - Not analyzed.
p - The RPD between the primary and confirmation columns/detectors is >40%. The lower value has been reported.
% - Percent.
RCRA - Resource Conservation and Recovery Act.
RPD - Relative Percent Difference.
TCLP - Toxicity Characteristic Leaching Procedure.

ARCADIS

Table 4 DRAFT - Summary of Toxaphene Data Sludge Samples (Post-Solidification), 2015 Activities Hercules Incorporated Hattiesburg, Mississippi, MDEQ AI No. 2022

Date Collected:	Federal (RCRA-TCLP) Hazardous Waste Criteria[1]	LDR Universal Treatment Standards	Unit	Cell 7				Cell 8					
				09/03/15	09/03/15	09/03/15	09/03/15	09/03/15	09/03/15	09/03/15	09/03/15	09/03/15	09/03/15
Location ID:				IBS7-01-090315	IBS7-02-090315	IBS7-03-090315	IBS7-04-090315	IBS8-03-090315	IBS8-04-090315	IBS8-05-090315	IBS8-06-090315	IBS8-07-090315	IBS8-08-090315
Organochlorine Pesticides - Method 8081B													
Total Toxaphene	--	2.6	mg/kg	<3.1	<2.9	<3.3	<3.3	NA	<2.7	<2.5	NA	<2.4	<3F1
Organochlorine Pesticides (TCLP) - Method 8081B													
TCLP Toxaphene	0.5	--	mg/L	0.0032Jp	<0.20	<0.20	<0.10	<0.10	NA	NA	<0.10	NA	NA
General Chemistry													
Percent Moisture	--	--	%	39	40	39	39	NA	NA	NA	NA	NA	NA
Percent Solids	--	--	%	61	60	61	61	NA	NA	NA	NA	NA	NA

Note: Gray shading indicates that a detection exceeds the Federal (RCRA-TCLP) Hazardous Waste Criteria standard
Yellow shading indicates that a detection exceeds the LDR Universal Treatment Standards
[1] - Regulatory Limits obtained from 40 CFR Part 261
-- Standard not promulgated
Bold - Compound detected
CRF - Code of Federal Regulations
F1 - MS and/or MSD Recovery is outside acceptance limits
F2 - MS/MSD RPD exceeds control limits
J - Indicates an estimated value
LDR - Land Disposal Restrictions
mg/kg - Milligram per kilogram
mg/L - Milligram per liter
MS - Matrix Spike
MSD - Matrix Spike Duplicate
NA - Not analyzed
p - The RPD between the primary and confirmation column/detector is >40%. The lower value has been reported
% - Percent
RCRA - Resource Conservation and Recovery Act
RPD - Relative Percent Difference
TCLP - Toxicity Characteristic Leaching Procedure

ARCADIS

Table 6. DRAFT - Summary of Native Soil Data, 2015 Activities, Hercules Incorporated, Hattiesburg, Mississippi, MDEQ AI No. 2022.

Date Collected: Location ID:	MDEQ Tier 1 TRG Restricted	MDEQ Tier 1 TRG Unrestricted	Federal (RCRA-TCLP) Hazardous Waste Criteria[1]	LDR Universal Treatment Standards	Unit	Cell 1 12/17/15 IBS1-NS-20151217	Cell 2 12/17/15 IBS2-NS-20151217	Cell 3 12/17/15 IBS3-NS-20151217	Cell 4 12/17/15 IBS4-NS-20151217	Cell 5 12/17/15 IBS5-NS-20151217	Cell 6 12/17/15 IBS6-NS-20151217	Cell 7 12/17/15 IBS7-NS-20151217	Cell 8 12/17/15 IBS8-NS-20151217
Volatile Organic Compounds - Method 8260B													
Acetone	1.04E+05	7.82E+03	--	160	mg/kg	<6,500	43J	<20	1.3J	3.1J	<290	2J	0.81J
Benzene	1.36E+00	8.87E-01	--	10	mg/kg	83J	11J	3.9J	5.5	0.88	<73	0.22J	0.61J
Carbon tetrachloride	5.69E-01	3.71E-01	--	6.0	mg/kg	<1,600	<31	90	<0.64	<0.79	<73	<0.54	<0.65
Chlorobenzene	1.19E+00	1.19E+00	--	6.0	mg/kg	<1,600	<31	1.7J	<0.64	<0.79	<73	<0.54	<0.65
Chloroform	4.78E-01	3.12E-01	--	6.0	mg/kg	<1,600	<31	7	<0.64	<0.79	<73	<0.54	<0.65
1,1-Dichloroethene	1.18E-01	7.72E-02	--	6.0	mg/kg	<1,600	<31	<5	<0.64	<0.79	<73	<0.54	<0.65
Ethylbenzene	3.95E+02	3.95E+02	--	10	mg/kg	<1,600	<31	<5	<0.64	<0.79	<73	<0.54	<0.65
Methylene Chloride	2.19E+01	1.43E+01	--	30	mg/kg	<1,600	27J	<5	<0.64	0.6J	<73	0.45J	<0.65
Methyl isobutyl ketone (MIBK)	1.63E+05	6.26E+03	--	33	mg/kg	<6,500	<120	<20	<2.6	0.45J	<290	<2.2	<2.6
Tetrachloroethene	1.82E+01	1.19E+01	--	6.0	mg/kg	<1,600	<31	<5	<0.64	<0.79	<73	<0.54	<0.65
Toluene	3.80E+01	3.80E+01	--	10	mg/kg	26,000	860	4.1J	7.1	3.2	2,000	0.089J	4.4
Volatile Organic Compounds (TCLP) - Method 8260B													
TCLP Benzene	--	--	0.5	--	mg/L	0.90	0.050	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
TLCP Carbon tetrachloride	--	--	0.5	--	mg/L	<0.025	<0.025	0.053	<0.025	<0.025	<0.025	<0.025	<0.025
Semivolatile Organic Compounds - Method 8270D													
1,4-Dioxane	5.20E+02	5.81E+01	--	170	mg/kg	<110	<3.5	<0.46	0.28	0.1J	<15	<0.13	0.04J
Naphthalene	2.47E+02	1.94E+02	--	5.6	mg/kg	74	0.33	<0.031	<0.0094	<0.009	<1F1	<0.0085	<0.0084
Organochlorine Pesticides - Method 8081B													
Total Toxaphene	5.20E+00	5.81E-01	--	2.6	mg/kg	7.3	3.2J	790	<0.88	0.45	<0.88	0.049Jp	<0.087F2F1
Organochlorine Pesticides (TCLP) - Method 8081B													
TCLP Toxaphene	--	--	0.5	--	mg/L	<0.020	<0.020	0.20Jp	<0.020	0.0012J	<0.020	0.00080Jp	<0.020
General Chemistry													
Percent Moisture*	--	--	--	--	%	34, 39	15, 15	14, 18	28, 24	25, 20	21, 25	20, 21	21, 24
Percent Solids*	--	--	--	--	%	66, 61	85, 85	86, 82	72, 76	75, 80	79, 75	80, 79	79, 76

Note: Red outline indicates that a detection exceeds both the restricted and unrestricted MDEQ Tier 1 TRGs
Blue outline shading indicates that a detection exceeds the unrestricted MDEQ Tier 1 TRG only
Gray shading indicates that a detection exceeds the Federal (RCRA-TCLP) Hazardous Waste Criteria standard
Yellow shading indicates that a detection exceeds the LDR Universal Treatment Standards
Samples obtained from the native soil in the IB after 6 inches were removed

[1] - Regulatory Limits obtained from 40 CFR Part 261
-- Standard not promulgated
* - Percent moisture and percent solids reported twice for IBS samples
Bold - Compound detected
B - Compound was found in the blank and sample
CFR - Code of Federal Regulations
F1 - MS and/or MSD Recovery is outside acceptance limits
F2 - MS/MSD RPD exceeds control limits
J - Indicates an estimated value
LDR - Land Disposal Restrictions
mg/kg - Milligram per kilogram
mg/L - Milligram per liter
MDEQ - Mississippi Department of Environmental Quality
MS - Matrix Spike
MSD - Matrix Spike Duplicate
NA - Not analyzed
p - The RPD between the primary and confirmation column/detector is >40%. The lower value has been reported
% - Percent
RCRA - Resource Conservation and Recovery Act
RPD - Relative Percent Difference
TCLP - Toxicity Characteristic Leaching Procedure
TRG - Target Remediation Goal

Enclosure 2

HERCULES POWDER COMPANY

SHEET 1 OF 6
(Sheet numbers are 1, 2, 3, 4, 5, and 6)

APPROPRIATION REQUEST—FACE SHEET

PART I $225,000.
PART II 1,421,500.
$ 1,646,500.

PLANT HATTIESBURG

DATE JUNE 21,1950

TITLE 2,000,000 LBS/MONTH TOXAPHENE PLANT

APPROPRIATION NO. 13586 PartII

Amount $ $1,421,500 Part II

$ NONE
Amount Forecast

DISTRIBUTION

Plant Increase: $1,411,348 Plant Decrease: $..... Depreciation: $ 10,152. Operations: $.....

Estimated Date of Completion In first quarter 1951.

PRESENT FACILITIES

A Toxaphene plant at Brunswick, Georgia having a capacity of 44,000,000 lbs. of Toxaphene per year.

A Part I approved 5/31/50 for $225,000 for purchase of long time equipment.

PROPOSED FACILITIES

This project will provide facilities for producing refined sulfate turpentine camphene, hydrochloric acid recovery, an extension to laboratory required for Toxaphene work, necessary storage and work tanks, necessary outside line for the new area, cooling water facilities, and impounding basin for final neutralization of effluent from the toxaphene and sulfate turpentine area.

REASONS FOR EXPENDITURE

a. Savings $164,000 in chlorine freight per year before taxes. $101,680 per year after taxes.

b. Increase in Capacity 24,000,000 lbs. per year. of Toxaphene product.

c. Others Will insure continuity in taking care of demand and will provide a greater measure in insurance than adding additional investment at Brunswick.

Checked by G. F. Whitehead 6/21/50 Date

Correct Arthur L. Larson 6/21/50 Date

Correct ..... Date

Approved L. C. Hall 6/21/50 Date
Per T.W.X. Superintendent or Manager

Approved R. N. Wheelock 6/21/50 Date
W.F.B. 6/21/50 Chief Engineer

Approved A. Langmeier 6/21/50 Date
Director of Operations

Approved A. E. Forster 6/22/50 Date
General Manager

Authorized ..... Date

Authorized by ~~Executive Committee~~ - Board of Directors

G. B. Baylis 6/28/50
Secretary Date

HERCULES 422802

Enclosure 2

HERCULES POWDER COMPANY

APPROPRIATION REQUEST—FACE SHEET

PART I $225,000.
PART II 1,421,500.
$ 1,646,500.

PLANT HATTIESBURG

DATE JUNE 21,1950

TITLE 2,000,000 LBS/MONTH TOXAPHENE PLANT

APPROPRIATION NO. 13586 PartII

Amount $ $1,421,500 Part II

$ NONE
Amount Forecast

DISTRIBUTION

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Per T.W.X. Superintendent or Manager

Approved R. N. Wheelock 6/21/50 Date
W.F.B. 6/21/50 Chief Engineer

Approved A. Langmeier 6/21/50 Date
Director of Operations

Approved A. E. Forster 6/22/50 Date
General Manager

Authorized ..... Date

Authorized by ~~Executive Committee~~ Board of Directors

G. B. Baylis 6/28/50
Secretary Date

Enclosure 3

STATE OF MISSISSIPPI
PHIL BRYANT
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
GARY C. RIKARD, EXECUTIVE DIRECTOR

April 27, 2016

Colleen E. Michuda
Senior Attorney
Office of RCRA/CERCLA Legal Support
U.S. Environmental Protection Agency
61 Forsyth Street, SW
Atlanta, Georgia 30303404

Re: Mississippi's authorization request regarding its adoption of the mixture and derived-from rules

Dear Colleen:

In September 2014, the Mississippi Department of Environmental Quality ("MDEQ") submitted its request to the U.S. Environmental Protection Agency ("EPA") for authorization of several regulatory changes to Mississippi's RCRA program. MDEQ included in the authorization package a request to be authorized for Checklist 117A which would allow Mississippi to apply the interim mixture and derived from rules ("Interim Rule") EPA promulgated in 1992. While Mississippi adopted the Interim Rule on June 28, 1992, MDEQ did not request EPA authorization until September 2014.

EPA promulgated the final mixture and derived-from rules ("Final Rule"), with two minor revisions, on May 16, 2001. 66 FR 27266. EPA revised the Final Rule on October 3, 2001. 66 FR 50332. On June 20, 2007, MDEQ submitted a final complete program revision application seeking EPA's authorization of program revisions Mississippi adopted between July 1, 2000, and June 30, 2005, which included Mississippi's adoption of the Final Rule with revisions. EPA approved Mississippi's program revisions, including its adoption of the Final Rule, on August 4, 2008. 73 FR 45170.

In light of Mississippi's adoption, and EPA's authorization, of the Final Rule, MDEQ's inclusion of a request to be authorized for Checklist 117A in its September 2014 authorization package was unnecessary.[1] MDEQ proposes to withdraw its request to be authorized for Checklist 117A from its September 2014 authorization package.

[1] Jerry Banks, the recently retired Director of MDEQ's Groundwater Assessment and Remediation Division, left notes describing the status of various regulation changes including where the changes were in the authorization process. *See* Enclosure. Mr. Banks included Checklist 117A in his notes as not having been submitted for EPA authorization. Enclosure, pp. 5, 13. However, Mr. Banks acknowledged that EPA had authorized Mississippi for

Sincerely,

Lisa T. Ouzts
Senior Attorney

Checklists 192A (final mixture and derived from rules, 66 FR 27266 (May 16, 2001) and 194 (mixture and derived from rules revision II (66 FR 50332 October 3, 2001)). Enclosure p. 8 and unnumbered page after p. 13. In reviewing Mr. Banks's notes, it appears he was attempting to pick up checklists that MDEQ had not submitted for authorization and inadvertently included Checklist 117A, authorization which was not only optional according to EPA's Checklist 117A Summary ("Revision Checklist 117 A is an optional checklist and was developed for those States who feel it necessary to adopt the reissued mixture and derived-from rule promulgated on March 3, 1992 (57 FR 7628))," but also moot because of Mississippi's adoption of the final mixture and derived from rule.

MISSISSIPPI

AUTHORIZATION SUMMARY REVIEW

I have reviewed all available documents in our files related to the state's authorization status regarding RCRA. In this regard I have specifically gone back and reviewed authorization applications and attorney general statements. The records for the authorization applications in the 1983 to 1986 time frame do not provide much information other than a number of attorney general statements from the time frame but little documentation of what additional information was submitted to EPA in these authorization applications.

The following is my analysis of Mississippi's RCRA Authorization Status in comparing it to the information in EPA's Authorization Web Site.

1)Non-HSWA Requirements prior to Non-HSWA Cluster I (January 26, 1983 – June 30, 1984):
Non-HSWA Cluster I (July 1, 1984 – June 30, 1985):
Non-HSWA Cluster II (July 1, 1985 – June 30, 1986):
Non-HSWA Cluster III (July 1, 1986 – June 30, 1987):
Non-HSWA Cluster IV (July 1, 1987 – June 30, 1988):

ADOPTED ALL REGULATIONS AND AUTHORIZED

Checklists IA, IB, IC, II, III, IVA, IVB, V, AI, MW,
Checklists 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13/13.1/13.2
Checklists MW (Radioactive Mixed Waste)
Checklists 24/24.1, 24A, 26/26.1/26.2, 27, 28N/28N.1, 29, 35, 36, 37, 38/38.1, 40, 41, 43, 45, 46

2)Non-HSWA Cluster V (July 1, 1988 – June 30, 1989)

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: Checklists 49, 52N, 53, 54/54.1, 55, 56, 57, 58, 59, 60

NOT AUTHORIZED:

CHECKLIST 61 (Non-HSWA) Cannot determine if we applied or not?
54 FR 9596 3/7/89 **(Changes to Interim Status Facilities)**

3)Non-HSWA Cluster VI (July 1, 1989 – June 30, 1990)

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: Checklists 64, 65, 67,71, 72, 73, 76, 78N

NOT AUTHORIZED:

CHECKLIST 70 (Non-HSWA) Cannot determine if we applied or not?
48 FR 14146 4/1/83 **(Changes to Part124)**

4)HSWA Cluster I (November 8, 1984 – June 30, 1987)

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: Checklists 14, 16, 17A, 17B/17B.1, 17C, 17D, 17E, 17F, 17G, 17H, 17I, 17J, 17K, 17M, 17N, 17O, 17Q, 17R, 17S, 18, 19/19.1, 20/20.1, 21, 22, 23, 25, 28H/28H.1, 30, 31, 32, 33, 34/34.1

NOT AUTHORIZED FOR:

SR1 Applied for in HSWA I, see AG Statement of 3/31/94 (HSWA)
(Existing and Newly Regulated Surface Impoundments)

SR2 Applied for in HSWA I, see AG Statement of 3/31/94 (HSWA)
(Surface Impoundment Variance under 3005(j)(2-9) and 13

BB Applied for in HSWA I, see AG Statement of 3/31/94 (HSWA)
(Exceptions to the Burning and Blending of Hazardous Wastes)

CP Applied for in HSWA I, see AG Statement of 3/31/94 (HSWA)
(Hazardous and Used Oil Fuel Criminal Penalties)

For SR1, SR2, BB, and CP above:

Public Notice of 3/18/94 says authorized for all of HSWA I except 17L and 17P

17L Applied for and denied in HSWA I, see AG Statement of 3/31/94 (HSWA)
(HSWA Codification Rule: Corrective Action)

17P Applied for and denied in HSWA I, see AG Statement of 3/31/94 (HSWA)
(HSWA Codification Rule: Interim Status)

SI – CANNOT CONFIRM IF THIS WAS ADDRESSED
(Sharing information with ATSDR)

5)HSWA Cluster II (July 1, 1987 – June 30, 1990):

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: **Checklists 39/39.1, 42, 44A, 44D, 44E, 44F, 44G, 47, 48, 50/50.1, 52H, 62, 63, 66/66.1, 68, 69, 74/74.1, 75, 77, 78, 79**

NOT AUTHORIZED FOR:

HB Did not apply for (HSWA)
(HSWA Codification Rule 2: Corrective Action Beyond Facility Boundary)

HC Did not apply for (HSWA)
(HSWA Codification Rule 2: Corrective Action for Injection Wells)

52 FR 45788 12/1/87

6)RCRA Cluster I (July 1, 1990 – June 30, 1991):

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: **Checklists 80/80.1/80.2, 81/81.1, 82, 83, 83, 84, 86, 87, 90, 91?**

NOT AUTHORIZED FOR:

85 Applied for BIF in separate application May 3, 1992 and denied (HSWA and Non-HSWA) **{BIF}** 56 FR 7567 2/21/91

88 Not Authorized (Non-HSWA) 56 FR 19951 5/1/91
(Administrative Stay of K069)
Cited in AG Statement 10/23/92, could not confirm Checklist submitted

89 Not Authorized (HSWA) 56 FR 21955 5/13/91
(Revision of F037 and F038)
Cited in AG Statement 10/23/92, could not confirm Checklist submitted

7)RCRA Cluster II (July 1, 1991 – June 30, 1992):

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: Checklists 92, 95, 99, 100, 102, 103, 104, 106

NOT AUTHORIZATION FOR:

94 – 56 FR 32688 7/17/91 (Did not apply) (HSWA and Non-HSWA) {BIF}

96 – 56 FR 42504 8/27/91 (Did not apply) (HSWA and Non-HSWA) {BIF}

97 – 56 FR 43704 9/4/91 (HSWA) Cited in AG Statement 7/16/93
(Miscellaneous Cluster)
(Exports of Hazardous Waste – Technical Correction)

98 – 56 FR 43871 9/5/91 (HSWA) Cannot confirm Checklist submitted
(Coke Ovens : Administrative Stay)

105 – 57 FR 27880 6/22/92 (HSWA) Cannot confirm Checklist submitted but
Cited in AG Statement 12/12/94
(Coke By-Products Exclusion)

8)RCRA Cluster III (July 1, 1992 – June 30, 1993):

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: **Checklists 107, 108, 109, 110, 112, 113/113.1/113.2, 115, 118, 119/119.1, 120, 122/122.1, 124**

NOT AUTHORIZED FOR:

111 57 FR 38558 8/25/92 (Did not apply) (HSWA and Non-HSWA) **{BIF}**

114 57 FR 44999 9/30/92 (Did not apply) (HSWA and Non-HSWA) **{BIF}**

116 57 FR 47772 10/20/92 (Did not apply) (HSWA)
(Hazardous Soil Case-by-Case Capacity Variance)

117A 57 FR 7628 3/3/92 (Did not apply) (HSWA and Non-HSWA)
(Mixture and Derived From Rules)

117A1 57 FR 23062 6/1/92 (Did not apply) (HSWA and Non-HSWA)
(Mixture and Derived From Rules – Technical Correction)

117A2 57 FR 49278 10/30/92 (Did not apply) (HSWA and Non-HSWA)
(Mixture and Derived From Rules – Final Rule)

117B 57 FR 23062 6/1/92 (Did not apply) (HSWA)
(Toxicity Characteristic Revision)

121 58 FR 8658 2/16/93 (Applied for) (HSWA) (Checklist and Cited in AG 6/13/95
(CAMU and Temp Units, Corrective Action Provisions)

123 58 FR 28506 5/14/93 (Did not apply) (HSWA)
(LDR-Renewal of Hazardous Waste Debris Case-by-Case Variance)

9)RCRA Cluster IV (July 1, 1993 – June 30, 1994):

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: Checklists 126 , 128, 129, 130, 131, 132, 133, 134

NOT AUTHORIZED FOR:

125 58 FR 38816 7/20/93 (Did not apply) (HSWA and Non HSWA) **{BIF}**

126.1 58 FR 46040; 8/31/93 Cited in 2/29/96 AG Statement
59 FR 47980 9/19/94 (HSWA)
(Hazardous Waste Management System, Testing and Monitoring Activities, LDR Correction)

127 58 FR 59598 11/9/93 (Did not apply) (HSWA) **{BIF – Bevill Residues}**

10)RCRA Cluster V (July 1, 1994 – June 30, 1995):

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: Checklists 135, 136, 137/137.1, 139, 140/140.1/140.2, 141, 142A, 142B, 142C, 142E, 144

NOT AUTHORIZED FOR:

142D 60 FR 25492 5/11/95 (Non-HSWA)
(Checklist submitted and cited in 3/26/99 AG Statement)
(Universal Waste Rule)

11)RCRA Cluster VI (July 1, 1995 – June 30, 1996):

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: Checklists 145, 148, 150, 151/151.1/151.2/151.3/151.4/151.5/ 151.6,

NOT AUTHORIZED FOR:

152 61 FR 16290 4/12/96 (HSWA)
The Checklist and regulations are included in the application but I saw no citation in the AG Statement.
(Imports & Exports of HW; Implement OECD Council Decision)

12)RCRA Cluster VII (July 1, 1996 – June 30, 1997)

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: **Checklists 153, 154/154.1/154.2/154.3/154.4/154.5/154.6 155, 156, 157, 158, 159**

13)RCRA Cluster VIII (July 1, 1997 – June 30, 1998):

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: **Checklists 160, 161, 162, 163, 164, 166/166.1, 167A, 167B, 167C/167C.1, 167F, 168**

NOT AUTHORIZED FOR:

167D 63 FR 31266 6/8/98 **(Mineral Processing Secondary Materials Exclusion)** (Non-HSWA)
(Appears Checklist was unintentionally left out but cited in 4/20/04 AG Statement)

167I 63 FR 31266 6/8/98 **(Bevill Exclusion Revisions/Clarification)**(Non-HSWA)
(Applied for Checklist and cited in 4/20/04 AG Statement)

14)RCRA Cluster IX (July 1, 1998 – June 30, 1999):

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: **Checklists 169, 170, 171, 174, 175, 176, 177, 178, 179, 180**

NOT AUTHORIZED FOR

172 63 FR 48124 9/9/98 (HSWA)
(Checklist and cited in 4/20/04 AG Statement)
(Emergency Revision of LDR Treatment Standards)

173 63 FR 51254 9/24/98 (HSWA)
(Checklist and cited in 4/20/04 AG Statement)
(LDR Treatment Standards:Spent Potliners)

15)RCRA Cluster X (July 1, 1999 – June 30, 2000):

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: **Checklists 181, 182/182.1, 183, 184, 185, 187**

NOT AUTHORIZED FOR:

Checklist 186 65 FR 42292 7/10/00 (Non-HSWA)
(Some info says not applicable not sure why not authorized)
(Amendment to Streamline NPDES Program Regs, Round 2)

16)RCRA Cluster XI (July 1, 2000 – June 30, 2001):

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: **Checklists 188/188.1/188.2, 189, 190, 191, 192A, 193**

NOT AUTHORIZED FOR:

Checklist 192/192B 66 FR 27266 5/16/01 (HSWA) **(LDR Correction)**

Submitted in Final RCRA Clusters XI through XV to EPA on May 21, 2007

17)RCRA Cluster XII (July 1, 2001 – June 30, 2002):

ADOPTED ALL REGULATIONS

AUTHORIZED FOR: **Checklists 194, 195/195.1, 197, 198, 199**

NOT AUTHORIZED FOR:

Checklist 196 67 FR 2962 1/22/02 (Applied for) (HSWA)
(CAMU Amendments)

Submitted in Final RCRA Clusters XI through XV to EPA on May 21, 2007

18)CRA Cluster XIII (July 1, 2002 – June 30, 2003):

ADOPTED ALL REGULATIONS AND AUTHORIZED

19)RCRA Cluster XIV (July 1, 2003 – June 30, 2004):

ADOPTED ALL REGULATIONS AND AUTHORIZED

20)RCRA Cluster XV (July 1, 2004 – June 30, 2005):

ADOPTED ALL REGULATIONS

Authorized for Checklists 205, 206 and 207

AUTHORIZATION APPLICATION:

Submitted Draft of Revised RCRA Cluster XV and Clusters XVI, XVII, and XVIII To EPA on December 5, 2008 for:

Checklist 206/206.1 (HSWA), 207/207.1, 208 (HSWA and Non HSWA)

21)RCRA Cluster XVI (July 1, 2005 – June 30, 2006):

ADOPTED ALL REGULATIONS

AUTHORIZATION APPLICATION:

Submitted Draft of Revised RCRA Cluster XV and Clusters XVI, XVII, and XVIII To EPA on December 5, 2008 for:

Checklist 208.1, 209, 210, 211 (Non-HSWA), 212, 213 (HSWA and Non HSWA)

22)RCRA Cluster XVII (July 1, 2006 – June 30, 2007):

ADOPTED ALL REGULATIONS

AUTHORIZATION APPLICATION:

Submitted Draft of Revised RCRA Cluster XV and Clusters XVI, XVII, and XVIII To EPA on December 5, 2008 for:

Checklist 214 (Non HSWA), 215 (HSWA)

23)RCRA Cluster XVIII (July 1, 2007 -- June 30, 2008):

ADOPTED ALL REGULATIONS

AUTHORIZATION APPLICATION:

Submitted Draft of Revised RCRA Cluster XV and Clusters XVI, XVII, and XVIII To EPA on December 5, 2008 for:

Checklist 216 (Non-HSWA), 217 (HSWA and Non HSWA), 218 (Non HSWA)

24)RCRA Cluster XIX (July 1, 2008 - June 30, 2009):

ADOPTED ALL REGULATIONS

AUTHORIZATION APPLICATION:

Submitted Draft of RCRA Cluster XIX, XX, and XXI To EPA on October 11, 2011 for:

Checklist 219 (Non HSWA), Checklist 220 (Non HSWA),
Checklist 221 Rule withdrawn (Non-HSWA)

25)RCRA Cluster XX (July 1, 2009 – June 30, 2010):

ADOPTED ALL REGULATIONS

AUTHORIZATION APPLICATION BEING PREPARED FOR:

Checklist 222 (Non-HSWA)

Checklist 223 (HSWA and Non HSWA)

Checklist 224 (Non HSWA)

26)RCRA Cluster XXI (July 1, 2010 – June 30, 2011):

ADOPTED ALL REGULATIONS

AUTHORIZATION APPLICATION BEING PREPARED FOR:

Checklist 225 (Not Available)

Checklist 226

Checklist 227

CHECKLISTS APPLIED FOR AND NOT AUTHORIZED

SR1 Existing and newly regulated surface impoundments
SR2 Variance under §3005(j)(2) (9) and (13)
BB Exceptions to Burning and Blending of Hazardous Waste
CP Hazardous and Used Oil Fuel Criminal Penalties
17L Corrective Action
17P Interim Status
85 Burning of Hazardous Waste in Boilers and Industrial Furnaces (BIF)
121 Corrective Action Management Units and Temporary Units
142D Specific Provisions for Thermostats
167E Bevill Exclusion Revisions and Clarification
172 Land Disposal Restrictions Phase IV – Extension of Compliance Date for Characteristic Slags
173 Land Disposal Restrictions; Treatment Standards for Spent Potliners from Primary Aluminum Reduction (K088); Final Rule

CHECKLISTS NOT FOUND IN AUTHORIZATION APPLICATION BUT CITED IN ATTORNEY GENERAL STATEMENT

88 Administrative Stay for K069 Listing
89 Revision to F037 and F038 Listings
97 Exports of Hazardous Waste; Technical Correction
105 Recycled Coke By-Product Exclusion
167D Mineral Processing Secondary Materials Exclusion

CHECKLISTS AND REGULATIONS FOUND IN AUTHORIZATION APPLICATION BUT NOT CITED IN ATTORNEY GENERAL STATEMENT

152 Imports and Exports of Hazardous Waste: Implementation of OECD Council Decision

CAN NOT DETERMINE OR DID NOT MAKE AUTHORIZATION APPLICATION

61 Changes to Interim Status Facilities for Hazardous Waste Management Permits: Modification of Hazardous Waste Management Permits; Procedures for Post-Closure Permitting
70 Changes to Part 124 Not Accounted for by Present Checklists
SI Sharing of Information with the Agency for Toxic Substances and Disease Registry
44B Corrective Action Beyond Facility Boundary
44C Corrective Action for Injection Wells
94 Burning of Hazardous Waste in Boilers and Industrial Furnaces; Corrections and Technical Amendments I
96 Burning of Hazardous Waste in Boilers and Industrial Furnaces; Corrections and Technical Amendments II
98 Coke Ovens Administrative Sta
111 Burning of Hazardous Waste in Boilers and Industrial Furnaces; Corrections and Technical Amendments III
114 Burning of Hazardous Waste in Boilers and Industrial Furnaces; Corrections and Technical Amendments IV
116 Hazardous Soil Case-by-Case Capacity Variance
117A Reissuance of "Mixture" and "Derived From" Rules
117A.1 "Mixture" and "Derived From" Rules; Technical Correction
117A.2 "Mixture and "Derived From" Rules; Final Rule
117B Toxicity Characteristic Amendment
123 Land Disposal Restrictions; Renewal of the Hazardous Waste Debris Case-by-Case Capacity Variance
124 Boiler and Industrial Furnaces; Changes for Consistency with New Air Regulations
126.1 Testing and Monitoring Activities (Included on Revision Checklist 126)
127 Boilers and Industrial Furnaces; Administrative Stay and Interim Standards for Bevill Residues
186 Amendments to Streamline the National Pollutant Elimination System Program Regulations: Round Two (Not applicable to State Programs)

MISSISSIPPI

HAZARDOUS WASTE PROGRAM AUTHORIZATION

APPLICATIONS	TIME PERIOD	AUTHORIZATION
Base Program	Begin – 6/30/83	June 27, 1984
Non-HSWA Rules	7/1/83 – 6/30/84	October 17, 1988
Non-HSWA Cluster I	7/1/84 – 6/30/85	October 17, 1988
Non-HSWA Cluster II	7/1/85 – 6/30/86	October 17 1988
Non-HSWA Cluster III	7/1/86 – 6/30/87	May 28, 1991
Non-HSWA Cluster IV	7/1/87 – 6/30/88	October 9, 1990
Non-HSWA Cluster V	7/1/88 – 6/30/89	May 28, 1991
Non-HSWA Cluster VI	7/1/89 – 6/30/90	June 7, 1993
HSWA Cluster I (Excludes Corrective Action)	11/8/84 – 6/30/87	May 17, 1994
HSWA Cluster II (Excludes Corrective Action)	7/1/87 – 6/30/90	December 20, 1993
RCRA Cluster I	7/1/90 – 6/30/91	June 7, 1993
RCRA Cluster II	7/1/91 – 6/30/92	July 31, 1995
RCRA Cluster III	7/1/92 – 6/30/93	October 30, 1995
RCRA Cluster IV	7/1/93 – 6/30/94	April 25, 2005
RCRA Cluster V	7/1/94 – 6/30/95	April 25, 2005
RCRA Cluster VI	7/1/95 – 6/30/96	April 25, 2005
RCRA Cluster VII	7/1/96 – 6/30/97	April 25, 2005
RCRA Cluster VIII	7/1/97 – 6/30/98	April 25, 2005
RCRA Cluster IX	7/1/98 – 6/30/99	April 25, 2005
RCRA Cluster X	7/1/99 – 6/30/00	April 25, 2005
RCRA Cluster XI	7/1/00 – 6/30/01	Oct. 3, 2008
RCRA Cluster XII	7/1/01 – 6/30/02	Oct. 3, 2008
RCRA Cluster XIII	7/1/02 – 6/30/03	Oct. 3, 2008
RCRA Cluster XIV	7/1/03 – 6/30/04	Oct. 3, 2008
RCRA Cluster XV	7/1/04 – 6/30/05	Oct. 3, 2008
RCRA Cluster XV REVISED	7/1/04 – 6/30/05	Draft 12/5/08 to EPA
RCRA Cluster XVI	7/1/05 – 6/30/06	Draft 12/5/08 to EPA
RCRA Cluster XVII	7/1/06 – 6/30/07	Draft 12/5/08 to EPA
RCRA Cluster XVIII	7/1/07 – 6/30/08	Draft 12/5/08 to EPA
RCRA Cluster XIX	7/1/08 – 6/30/09	Draft 10/11/11 to EPA
RCRA Cluster XX	7/1/09 – 6/30/10	Draft 10/11/11 to EPA
RCRA Cluster XXI	7/1/10 – 6/30/11	Draft 10/11/11 to EPA
RCRA Misc Cluster	*******	Draft 10/11/11 to EPA
RCRA Cluster XXII	7/1/11 – 6/30/12	
RCRA Cluster XXIII	7/1/12 – 6/30/13	

**** State submittal of missed regulations over the years to update authorization