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OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

JUL 31 1990

Mr. Douglas MacMillan, Director
Hazardous Waste Policy
National Solid Wastes Management Association
1730 Rhode Island Ave., N.W. Suite 1000
Washington, DC 20036

Dear Mr. MacMillan:

This letter responds to your inquiry dated June 13, 1990, to Richard Kinch, of my staff, concerning several aspects of the Third Third land disposal restrictions final rule. Your letter included questions about the following topics: multisource leachate, treatment verification, the dilution prohibition, the applicability of specified technology standards, effective dates, identification of applicable waste restrictions, inorganic solid debris, waste tracking, lab packs, underground injection, surface impoundments, and treatment in tanks and containers. Responses to the specific questions are presented in the same order as included in your letter.

Please note that responses are not provided for questions 21, 23, 30, 34, 35, and 36, and the first part of question 42. Responses to these questions will be provided in the near future.

A. MULTISOURCE LEACHATE

1. In response to your question whether multisource leachate must be manifested now as F039 -- that is, before August 8, 1990 -- the answer is no. Please see the Third Third final rule preamble discussion at 55 FR 22650. However, it should also be noted that the manifest under the federal hazardous waste program only includes the Department of Transportation waste description, not EPA's Hazardous Waste Number.
2. The question points out a discrepancy between the regulatory language of 40 CFR Part 268 where multisource leachate nonwastewaters were granted a two-year national capacity variance for surface disposed wastes, and the regulatory language of 40 CFR Part 148 which failed to grant such a capacity variance to the waste when destined for underground injection. The Agency found, upon reexamination of this apparent typographical error, that other waste types destined for underground injection were also omitted from the regulatory language by mistake (although

they were included in the preamble). The effective dates for these classifications are as follows: for F039 nonwastewaters that are sent offsite for underground injection, the effective date is August 8, 1990; for F039 nonwastewaters that are being injected onsite, the effective date is November 8, 1990; and for all F039 wastewaters, whether being injected onsite or offsite, the effective date is May 8, 1992. These omissions will be addressed in a correction notice that is expected to be published in the Federal Register in September 1990.

3. Confirmation is requested on the applicability of the F039 nonwastewater capacity variance as it applies to contaminated soil. The Agency agrees that soil that is contaminated with F039 is a nonwastewater that is subject to the two-year national capacity variance until May 8, 1992, even if some of the sources of the multisource leachate are from waste-codes for which any capacity variance has expired. Please see 40 CFR 268.35(b) and (e).

4. In response to your question of what mechanism will be allowed for adopting the f039 waste code into a permit, page 22621 of the Third Third final rule preamble explains that the procedures that should be followed are those found in 40 CFR 270.42(g). The Agency has made the determination that if a permit is simply being changed by substituting the F039 waste code for the multiple waste codes that heretofore were carried through with the leachate, then only a Class 1 permit modification is necessary. The procedures require the submission of a Class 1 modification by the date on which the waste becomes subject to the new requirements, August 8, 1990.

5. The question asked is what is required for adoption of the F039 waste code at a facility with a final Part B permit in an authorized State which has not adopted the new F039 waste code. The Agency points out that the new waste code is considered a HSWA regulation immediately effective in authorized States and implemented by EPA. Thus, the facility should submit a Class 1 modification as described in question number four above. This serves as a "HSWA rider" to the RCRA permit. (The RCRA permit may have been issued by the State, EPA, or jointly by both Agencies.) The Class 1 modification enables the facility to manage multisource leachate under the Federal HSWA program; therefore, the State need not take any action to recognize the effectiveness of the modification.

6. In response to the questions of whether a final disposal facility must test for all f039 constituents even though the generator has certified, based on his knowledge of the waste, that certain parameters are not present, the Agency addressed the waste analysis requirements in the Third Third final rule

preamble on page 22669. Treatment and disposal facilities may generally rely on information provided to them by generators.

Treatment and disposal facilities, however, must conduct periodic detailed physical and chemical analyses of their waste streams to assure that the appropriate Part 268 treatment standards are being met. Even though the Agency does not specify the frequency of such corroborative testing, this implies that a treatment or disposal facility must test for all F039 constituents at some time, even though the generator has certified, based on his knowledge, that certain parameters are not present. The Agency recognizes that waste analysis parameters and the frequency of testing are best established on a site-specific basis. Thus, a streamlined permit modification procedure was established in the Third Third final rule to allow appropriate testing requirements and frequencies to be incorporated into permits. Permit modifications and implementation procedures are discussed at page 22621 of the Third Third preamble.

7. The scenario presented in this question is analogous to that in question number 6. The disposal facility may generally rely on treater-supplied information, but is also required to perform periodic corroborative testing.

8. The question presented is whether a TSDF may dispose of its own solidified leachate in an onsite, non-MTR cell during the two-year national capacity variance. The Agency set out the requirements for wastes disposed of during a national capacity variance in the First Third final rule on August 8, 1988. These requirements include that wastes disposed in a landfill or surface impoundment during the period of a national capacity variance may only be placed in a unit meeting the minimum technological requirements (see 40 CFR 268.5(h)(2)).

9. In response to the question of whether the F039 waste code is immediately effective on May 8, 1990, the answer is no. The Agency delayed the effective date for the new f039 designated until August 8, 1990. This period of time, as indicated previously, should have been used by facilities to modify their permits to include the new waste code and their waste analysis plans to specify the constituents and the frequency of waste analyses. Please see the preamble discussion at page 22650. In response to the question of notifying and certifying requirements for F039 going for partial treatment, the Agency requires that all constituents and applicable treatment standards be included on the notification and certification, regardless of whether it is sent to a facility for partial or total treatment.

B. TREATMENT VERIFICATION

10. Under 40 CFR 264.13(1)(1), certain testing must occur

prior to hazardous waste management; thus, owners or operators of treatment, storage, and disposal facilities must obtain detailed chemical and physical analyses of representative waste samples. In addition, corroborative testing is now required on occasion even where testing data is supplied. Approved waste analysis plans will eventually specify the frequency of all testing.

11. In response to your question regarding the certification in 40 CFR 268.7(b)(5)(iii), if the analysis is performed by an off-site independent lab, who makes the certification that "I have been unable to detect the inorganic hazardous constituents...", such a certification can be made by the laboratory as an authorized representative. The laboratory would include this certification with the laboratory results to become part of the TSD's required paperwork under section 268.7.

12. This question concerns the use of the TCLP versus the EP for measuring compliance with the characteristic lead treatment standard and the characteristic and associated arsenic treatment standards. The TCLP may be used to measure compliance for these wastes. If the waste meets the treatment standards through analysis of the TCLP leachate, there is not requirement that the EP must also be used. If the waste does not meet the treatment standard through analysis of the TCLP leachate, the EP may be used. If the treatment standard is met according to the analysis of the leachate from use of the EP, then the waste complies with the treatment standards.

13. This question asks an example of the new "referencing provision" for notifications. The preamble discussion on page 22668 and the regulatory language of amended section 268.7 specifies the information that is require on the notification when referencing treatment standards. In particular, the hazardous waste number (e.g., D003), the subcategory of the waste (e.g., reactive cyanide subcategory), the treatability group of the waste (e.g., nonwastewater), and the CFR Part, section, and paragraph where the treatment standard appears (e.g., section 268.42(a)) should all be on the notification when using the referencing provision. When the treatment standard is expressed as a specified technology, the applicable five-letter treatment code (e.g., INCIN) found in Table 1 of section 268.42 must also be listed on the notification.

C. DILUTION PROHIBITION

14. The scenario presented is that of a waste which has both organics and metals (for which treatment standards have been established) which is blended in a tank with other wastes prior to incineration. The resultant incinerator residues meet all organic and metal treatment standards. In response to the question of whether further treatment of the metals is required, the answer is no.

15. The scenario presented is that of an F006 waste containing both metals and cyanides above the treatment standards that is treated by stabilization. The treatment standards are met for both the metallic constituents and the cyanide. The question is whether this is considered to be impermissible dilution of the cyanide. The objectives of the dilution prohibition are to assure that prohibited wastes are actually treated rather than diluted, and to assure that prohibited wastes are treated by methods that are appropriate for that type of waste. The agency considers stabilization of cyanide to be impermissible dilution -- that is, stabilization is not an appropriate method of treatment for cyanide. Stabilization reduces the leachability of the cyanide but does not destroy it. In the Second Third final rule, the Agency stated that stabilization is not an applicable technology for the treatment of the majority of cyanide wastes (54 FR 26609). This is supported by the legislative history of RCRA section 3004(m) which indicates that Congress intended that the "destruction of total cyanides would be required as a precondition to land disposal" (130 Congressional Record S9179, July 25, 1984, statement of Senator Chafee). The BDAT for cyanide is based on the performance of alkaline chlorination. This technology destroys the cyanide constituents and converts cyanides to carbon dioxide and nitrogen.

16. The question is what are the administrative requirements for characteristic wastes that are blended for fuel substitution, and in the course of blending, the characteristic is lost. Whenever a characteristic hazardous waste loses its characteristic (and thus its classification as a hazardous waste), for each shipment of blended fuel, a notification and certification must be sent to the appropriate EPA Regional Administrator or State authorized to implement the Part 268 requirements (see 55 FR 22688, section 268.9(d)).

17. The first question is whether cyanide is considered to be an "other inorganic." The answer is no. The Agency does not consider cyanide to be an other inorganic and thus suitable for stabilization (see response to question 15). The next questions is whether a facility may stabilize cyanide wastes to meet treatment standards if they show that there is more than just dilution occurring. EPA maintains that merely reducing the leachability of cyanide is inadequate treatment; the destruction of cyanide is a precondition of land disposal. Stabilization, therefore, would not be allowed because there is not evidence of destruction of cyanide. An example is presented of treatment of a waste containing 5900 ppm total cyanide that is stabilized using a waste to additive ratio of one part waste to four parts additive. After stabilization, the waste meets the 590 ppm total cyanide treatment standard. The assertion is made that a ten

fold reduction in cyanide concentration has occurred, and a maximum of less than half of that reduction is attributable to dilution. The question is whether this is permissible. As has been established in this answer, and in answer number 15 above, this is not permissible because stabilization is not an applicable technology for the treatment of cyanide wastes.

18. The question asked is what is the difference between aggregation by the treater of a waste and aggregation by the generator; the example provided in the question concerns aggregation of ep toxic metals in industrial sewer systems. The answer is that there is no difference. In particular, toxic characteristic wastes ordinarily may not be impermissibly diluted (either by a generator or a treater) to meet the treatment standards if such wastes will be land disposed in a RCRA Subtitle C & D facility. However, if toxic characteristic wastes are treated or disposed of in certain systems regulated under the Clean Water Act or Safe Drinking Water Act, the dilution prohibition does not apply. Please see the preamble discussion at pages 22651-22659.

D. APPLICABILITY OF SPECIFIED TECHNOLOGY STANDARDS

19. The Agency agrees with the interpretation that the specified technology of "INCIN" does not include units such as boilers, furnaces, and cement kilns that burn hazardous waste for their fuel value or material recovery (units not regulated by the performance standards imposed on permitted incinerators). On the other hand, Subpart O includes among those considered to incinerate hazardous waste, owners or operators who burn hazardous waste in boilers or in industrial furnaces in order to destroy it or who burn hazardous waste in boilers or industrial furnaces for any recycling purpose and elect to be regulated under the subpart. Thus, the specified technology of "INCIN" does apply in these circumstances.

20. The Agency intended that the requirements of section 268.42(c)(3) (the requirement that lab packs are incinerated in accordance with the requirements of 40 CFR Part 264, Subpart O, and Part 265, Subpart O), not allow burning in boilers and industrial furnaces. The Agency intends that such lab packs be incinerated in units subject to the performance standards of 40 CFR 264.343 or 265.343.

22. The question seems to center around the fact that incineration is required for certain P and U codes, but when these specific wastes are constituents in listed wastes, incineration may not be required. The question asked is whether a performance standard (concentration-based standard) automatically exempts a waste from incineration (treatment standard expressed as a method). The fact that a concentration-based standard is specified does not automatically "exempt" a

waste from incineration; in many cases, incineration may be the only technology that will achieve the concentration levels. When a concentration level is specified, however, there is no requirement that incineration must be used. As far as the concern about air emissions, for P and U wastes for which incineration was specified, the Agency has reason to believe that they will pose a significant air emission risk. Very few of these P and U wastes are found as constituents in listed wastes; when they are, it is much more difficult to determine the air emission risk for the listed waste matrix that it is for the listed P and U waste which is more likely to be an industrial grade chemical.

E. EFFECTIVE DATES

24. The question is when is the TCLP allowed for characterizing wastes for purpose of the land disposal restrictions. The EP should be used to characterize wastes for purpose of hazard determination in order to see if they are restricted under the Third Third final rule. This is true even after the TC final rule becomes effective on September 25, 1990. EPA interprets the statute such that wastes that exhibit the toxicity characteristic by the TCLP but not by the EP are not presently prohibited because such wastes are newly identified pursuant to RCRA section 3004 (g)(4).

25. The question is whether RCRA corrective action wastes and CERCLA cleanup wastes should be granted a national capacity variance in the Third Third final rule, because such capacity variances were granted in the First and Second Third rules. The questioner is mistaken that national capacity variances were granted for RCRA/CERCLA actions in the First and Second Third final rules; no such variances were granted. Rather, national capacity variances were granted for soil and debris contaminated with First and Second Third wastes for which BDAT was incineration. A similar national capacity variance was granted in the Third Third final rule for soil and debris contaminated with Third Third wastes for which BDAT is incineration, vitrification, or mercury retorting.

26. The request is for an update on the status of K061 high zinc waste, as to whether it received an additional one-year variance in the Third Third final rule. Please see the discussion in the preamble at page 22599. Stabilization remains a permissible way of treating this waste for one additional year. If stabilization is used, the concentration-based standard must be met.

F. IDENTIFICATION OF APPLICABLE WASTE RESTRICTIONS

27. The questioner believes that there is an inconsistency between amended 40 CFR 262.11 (that indicates, it is asserted, a

generator must determine if his waste is characteristic UNLESS it is listed), and amended 40 CFR Part 261 (which requires that the determination of hazardous characteristic be made for all waste). There is no actual inconsistency between these parts of the regulation. Amended section 262.11 actually states two circumstances that will indicate whether the determination of hazardous characteristic must be made: (1) for purposes of compliance with 40 CFR Part 268 (since no further conditions are specified, the determination must be made for all solid wastes regardless of whether or not they are listed hazardous wastes) or, (2) if the waste is not a listed hazardous waste (this includes wastes that are not subject to the land disposal restrictions so the determination must be made only for solid wastes, not listed wastes).

28. An issue is raised in regard to a perceived discrepancy between the requirements of 40 CFR 268.35(j) and 268.9(b) regarding the rule that when a waste is a listed waste and a characteristic waste, the more specific treatment standard applies. The Agency has determined that treatment standards that are in effect for listed wastes are more specific than treatment standards in effect for characteristic wastes. The perceived discrepancy arises when the treatment standard for the listed waste is less stringent than the treatment standard for the characteristic waste, as is the case in the example of chromium in F006 (for which the treatment standard is 5.2 ppm) and EP toxic chromium (for which the treatment standard is the characteristic level of 5.0 ppm). The question is which treatment standard should be met for chromium in F006, the more specific, or the more stringent. The rule that the more specific treatment standard is applicable takes precedence, thus the treatment standard for chromium in F006 is 5.2 ppm, because it is the treatment standard for the listed (more specific waste). Thus, the Agency sees no discrepancy between section 268.(b) and section 268.35(j).

29. A request is made for an explanation of how to classify wastes as either characteristic wastes or listed wastes (when the waste is considered both characteristic and listed) for purpose of the notifications required under 40 CFR Part 268.7. In the case of a listed waste that is classified as a characteristic waste, the most specific treatment standard applies (55 FR 22659) and should be included on the notification. This means that if both the treatment standard for a listed waste and the treatment standard for a characteristic waste are in effect, then the treatment standard for the listed waste applies because it is more specific.

An example is presented of the listed waste K061, which contains lead. Since the treatment standards for K061 are currently in effect, the lead is subject to the K061 treatment standard rather than the treatment standard for EP toxic lead.

The question is asked whether only the K061 waste code is included on the generator's biennial report and manifests, or should both K061 and D008 (EP toxic lead) be included. Only the K061 waste code should be included on the generator's biennial report because the K061 treatment standard is more specific. Also, since K061 includes a treatment standard for lead, including the D008 waste code on the biennial report would cause a double-counting of the volume of lead waste actually being generated. Only the K061 waste code would be included on the notification required under 40 CFR 268.7 (as well as all other information required under section 268.7(a)(1)). Only the U.S. Department of Transportation (DOT) description is required on the manifest; there is no Federal requirement to list the EPA Hazardous Waste Number.

If the treatment standard for the listed waste is subject to an extension of the effective date (through a national capacity variance or case-by-case extension) and the treatment standard for the characteristic waste is in effect, then the treatment standard for the characteristic waste applies because it is the only standard that is currently in effect. An example is presented of the listed wastes K048 - K052, which contain chromium. K048 - K052 wastes are subject to a six-month national capacity variance; consequently, the treatment standards would not be in effect until November 8, 1990. The treatment standard for EP toxic chromium is effective on August 8, 1990. During the period from May 8, 1990 until August 8, 1990, the waste is not subject to any treatment standards due to the three-month national capacity variance that was granted for all Third Third wastes. Therefore, the notification would include the applicable K048 - K052 waste code and the date upon which the waste is subject to the prohibitions (November 8, 1990), and all other information required under section 268.7(a)(3). The notification would also include the D007 waste code and the date upon which the waste is subject to the prohibitions (August 8, 1990), and all other information required under section 268.7(a)(3).

During the period from August 8, 1990 until November 8, 1990, the waste is subject to the treatment standard for EP toxic chromium since the effective date for this waste has passed (the K048 - K052 treatment standard is still not in effect). The notification would include the applicable K048 - K052 waste code and the date upon which the waste is subject to the prohibitions (November 8, 1990) as well as the D007 waste code and all other information required under section 268.7(a)(1). The waste, of course, must be treated to meet the D007 treatment standard prior to land disposal. When the effective date for the K048 - K052 wastes has passed (November 8, 1990), the waste will be governed by the waste code and treatment standards for the K048 - K052 wastes, since these treatment standards are now more specific, and the D007 waste code may be omitted from the notification.

EPA points out, however, that when the listed waste displays a characteristic that is not addressed as a constituent of concern in the listed waste, the treatment standard for both the listed waste and the characteristic waste must be met (55 FR 22659). EPA applies this principle at the point of generation. Therefore, both the characteristic and the listed waste codes must be included on the notification.

31. Please see answer number 29.

32. The question is whether on September 25, 1990 (the effective date of the TC final rule for large quantity generators) a waste that becomes hazardous solely due to the change from EP testing to TCLP testing is subject to the treatment standards. Wastes that exhibit the TCLP characteristic but not EP toxicity are considered to be newly identified wastes. Newly identified hazardous wastes are not subject to the land disposal restrictions until treatment standards and prohibitions are promulgated by the Agency. This should not be considered an 'exemption' that one may or may not take advantage of; rather, newly identified wastes are a category of wastes that are subject to the schedule for promulgation of regulations found at RCRA section 3004(g)(4).

33. The question concerns the status under the land disposal restrictions of wastes that were previously exempted from the definition of hazardous wastes under the Bevill amendment. These wastes are considered to be newly identified wastes no matter when they may be generated. See also answer number 32. Both of these matters were discussed explicitly in the preamble to the final Third Third rule at pages 22660 and 22667.

G. INORGANIC SOLID DEBRIS

37. This question asks whether a material that is mixed with nonwastewater materials (such as soil) and defined as inorganic solid debris is subject to the treatment standard for the nonwastewater material. An example is given of a soil and cement debris mixture that carries the D006 waste code. In the example, the material is stabilized such that the solid fraction meets the treatment standard. In response to the question of whether the inorganic debris portion would be subject to the D006 treatment standard, it is difficult to determine from the example provided how the waste is being treated, so it is difficult to formulate an answer. It is unclear how this mixture of soil and debris could be stabilized to meet the treatment standard for D006 unless the cement debris was first crushed and mixed with the soil and then the soil/debris mixture was stabilized. If that is the case, then the debris is subject to the D006 treatment standard because it has become part of the soil matrix and the soil is subject to the D006 treatment standard.

The next question is whether the inorganic solid debris is subject to enforcement grab sampling for the purpose of testing to mix for meeting the treatment standards. Here again, the debris portion would of course be subject to grab sampling for purposes of enforcing the treatment standards (because the stabilized soil would be subject to grab sampling for enforcement purposes). It should be remembered, however, that if the debris portion is separated from the soil, the debris is subject to a two-year national capacity variance as "inorganic debris." inorganic debris is not required to meet the D006 treatment standard until the effective date of May 8, 1992 (however, the notification requirements of 268.7(a)(3) apply, and if the debris is disposed in a landfill or surface impoundment, the unit must meet the minimum technological requirements).

38. The question posed is whether any organics (hazardous or nonhazardous) may be included in the classification of inorganic solid debris. Nonhazardous organic materials are not precluded from inclusion in the waste matrix, provided the material meets the definition of "inorganic solid debris" in section 268.2.

H. WASTE TRACKING

39. A scenario is presented where a characteristic waste is treated to below the characteristic level but the treated waste is sent to a Subtitle C land disposal facility. The question posed is whether the generator must notify the Agency as would be required if the waste were disposed at a Subtitle D facility. The answer is no; the notification should only be sent to the Subtitle C facility. Please see the preamble discussion at page 22662.

40. The Agency is presuming that in the scenario presented, a facility has a permit that includes a narrative description that allows disposal of incinerator ash. If this is the case, then the facility should be able to take any incinerator ash, whether it is from the incineration of the Third Third wastes or not. In fact, EPA has encouraged the appropriate use of narrative descriptions in permits to address situations just like the one presented here. The question, however, is somewhat vague and would actually depend upon the wording of the specific permit language.

41. The question asked is how often must notifications for treated characteristic wastes (presumably that are disposed of in a Subtitle D facility) be sent to the Regional Administrator. Such notifications must be sent with each shipment. Please see section 268.9(d) As to whether the notification is waste stream specific, it is unclear exactly what is being asked. The information that must be provided in the notification is

specified in section 268.9(d), and includes a description of the waste as initially generated, including the applicable EPA Hazardous Waste Numbers and treatability group; in this sense, the notification is waste stream specific.

I. LAB PACKS

42. Clarification is requested on whether the simplified lab pack procedures set out in the Third Third final rule include burning in cement kilns. Cement kilns are not included under the new lab pack procedures. Rather, the simplified lab pack procedures only apply if the lab pack is burned in an incinerator in accordance with the performance standards set out in 40 CFR 264.343 (see section 268.42, Table 1, under "INCIN").

J. UNDERGROUND INJECTION

43. Since this question pertains to the land disposal restrictions program for underground injected waste, we will be working with the Office of Water to prepare a response. Should you need guidance in the meantime, please contact Bruce Kobelski at 382-7275.

K. SURFACE IMPOUNDMENTS

44. In response to the question of when a prohibited waste may be placed into a surface impoundment meeting minimum technology requirements (MTR), such a waste may be placed in a MTR unit if it: (1) meets all applicable treatment standards;(2) is subject to a national capacity variance or case by case extension; or, (3) is subject to the treatment surface impoundment exemption of 40 CFR Part 268.4. The next question is whether a restricted waste not meeting the treatment standards may be stored in a such a surface impoundment for up to one year provided that all residuals not meeting the treatment standards are removed within that year. The answer is no. Storage of hazardous wastes is only allowable in tanks or containers; placement of untreated hazardous waste into a unit for purposes of storage is actually land disposal and is therefore prohibited (unless section 268.4 is complied with). Please see RCRA section 3005(j)(11).

45. In response to the question of whether F039 that is placed in a permitted tank and is then pumped to a carbon adsorption unit and then back to the tank is considered treatment in a tank, the answer is yes. The treatment process described may be subject to the requirements of section 262.34, including the new waste analysis requirements of section 268.7, rather than the requirements of 40 CFR Part 264. A determination of how to classify this treatment process would best be made by Regional or State permit writers who are familiar with the specifics of the site.

I trust these answers will be helpful in dealing with the concerns of your membership. Since these answers were developed in a short period of time, the answers provided in this document represent the Agency's initial interpretation of the situation described by each question, and do not necessarily reflect the Agency's final position. Answers to many of your questions will appear in the forthcoming corrections notice to the Third Third final rule. If you have any further questions, please feel free to call Matthew A. Straus or my staff at (202) 382-6972.

Sincerely,

Original Document signed

Sylvia K. Lowrance, Director
Office of Solid Waste