DCN PH4P065
COMMENTER Safety-Kleen Corp.
RESPONDER HM
SUBJECT POG
COMMENT 3. EPA should finalize the "point of generation" rulemaking prior to promulgation of the final Phase III and Phase IV LDR regulations. In the preamble to the proposed Phase III LDR regulations (60 FR 11702), the Agency requested comments on potentially altering the "point of generation" definition as it applies to wastewater streams. Safety-Kleen understands that the Agency will respond to the received comments in an upcoming rulemaking specifically addressing point of generation. Obviously, the Agency's proposed rulemaking may have a significant impact on the applicability of the Phase IV LDRs, because the basic applicability questions are premised on waste character at the point of generation. If the definition of a waste's point of generation is revised (i.e., to process limits or battery limits), some wastes will not be defined as hazardous and will exit the RCRA system (e.g., due to aggregation and resulting incidental treatment close to the originating process). Thus, a facility might be required to spend significant money developing a program to comply with the Phase III and Phase IV LDR programs, which would subsequently become completely unnecessary under the revised definition of point of generation. Safety-Kleen strongly recommends that the Agency complete its point of generation rulemaking prior to the promulgation of the final Phase III and Phase IV regulations, to allow the regulated community to implement complying programs without the concern that the applicability may change at a later date.
RESPONSE

The Agency thanks the commenter for supporting EPA's re-examination of the point of generation issue. EPA did propose several point of generation options in the Phase III rulemaking, however, many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P015
COMMENTER BP Oil
RESPONDER HM
SUBJECT POG
SUBJNUM 015
COMMENT

In addition, the court's decision in no way affected the current "treatability group doctrine" or indicated that it should be invalidated or discarded.

RESPONSE

The Agency agrees with the commenter that the court decision did not invalidate or discard the treatability group doctrine.

DCN PH4P015
COMMENTER BP Oil
RESPONDER HM
SUBJECT POG
SUBJNUM 015
COMMENT

Point of generation issues are generally difficult in the overall land disposal restriction (LDR) program but are especially onerous regarding the Phase IV proposals and for the Subpart CC air emission rules. We Support EPA's planned re-examination of these issues.

Current requirements concerning the "point of generation" include sampling and analysis of each individual waste stream at its source to determine whether or not it is hazardous and to determine whether or not it exceeds applicable volatile organic concentration levels. This requires extensive, extremely costly and sometimes technically impossible sampling and analysis programs. Method 25D for determining the volatile organic concentration is very costly to perform, and laboratories capable of performing the analysis are difficult to locate. In many cases it is impossible to separate wastewater streams for individual sampling. Taking into account variability or attempting to determine annual average concentrations only increases the number of samples that must be collected and analyzed. In the Phase IV rulemaking, the point of generation that makes sense for aggregated, non-hazardous wastewater is sampling and analysis at the point where the wastewater enters the surface impoundment.

RESPONSE

The Agency thanks the commenter for supporting EPA’s re-examination of point of generation issues. Many of these issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P015
COMMENTER BP Oil
RESPONDER HM
SUBJECT POG
SUBJNUM 015
COMMENT

The issues being addressed in this rulemaking have the potential to require significant costs with little apparent benefit. The Agency should determine in the Phase III and Phase IV RULEMAKING that meeting the UTS at the NPDES discharge point of a CWA system which includes non-hazardous surface impoundments satisfies the findings of the court and that further requirements are not needed.

RESPONSE

The Agency did propose several point of generation options in the Phase III rulemaking, however, many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P017
COMMENTER Kodak
RESPONDER HM
SUBJECT POG
SUBJNUM 017
COMMENT

Additionally, sludge from a non-hazardous surface impoundment would be regulated as a hazardous waste if it has hazardous characteristics, because the sludge is considered a new point of generation for listing determinations.

RESPONSE

The Agency did propose several point of generation options in the Phase III rulemaking, however, many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P022
COMMENTER Phelps Dodge
RESPONDER HM
SUBJECT POG
SUBJNUM 022
COMMENT

PDC supports EPA's proposal to clarify the point of generation as applied to separate waste streams that are routinely aggregated as part of a series of manufacturing processes associated with making a single product. PDC believes that this concept should be expressly recognized in the mining context especially for waste streams that have been routinely aggregated as an efficient and environmentally sound wastewater management practice.

RESPONSE

The Agency thanks the commenter for supporting EPA's re-examination of point of generation issues. Many of these issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P022
COMMENTER Phelps Dodge
RESPONDER HM
SUBJECT POG
SUBJNUM 022
COMMENT

III. PDC Supports EPA's Proposal to Redefine the Point of Generation for Commonly aggregated Waste Streams and Believes that the Proposal Should Extend to Routine Aggregation of Processing Streams That Occurs in the Mining Context.

PDC supports EPA's Phase III proposal to clarify the point during an industrial process at which a waste is generated and the LDRs become applicable. 60 Fed. Reg. at 11,715-17. The proposal would allow for routine aggregation of waste streams from related manufacturing processes before RCRA regulation and the LDR dilution prohibitions would attach. The proposal also would recognize that the routine aggregation of waste streams from a related manufacturing process is "a normal part of the process that results in the waste" and therefore "can be taken into account [or allowed] in establishing concentration levels." 60 Fed. Reg. at 11,707 (citing S. Rep. No. 284, 98th Cong., 2d Sess. 17).

PDC supports EPA's point of generation proposal as applied to each of the three options contemplated including the "battery limit" option. The "battery limit" option is necessary to recognize routine wastewater treatment practices occurring at mining facilities. For instance, a common practice at many integrated copper mining facilities is the aggregation of mineral processing wastes (e.g., acid plant blowdown) with tailing as part of the facilities' wastewater management practices. PDC believes that such longstanding practices should be allowed under EPA's "battery limits" option since the manufacturing steps producing the mineral processing wastes and the tailing constitute an entire battery of processes that are associated with making a single product (i.e., anode copper). Additionally, the aggregation of tailing with mineral processing streams often is environmentally beneficial due to the stabilizing and neutralizing affect of the tailing. PDC further believes that the appropriate point for determining LDR compliance and point of generation issues is at the point that an aggregated waste stream exits the wastewater treatment unit, which in the mining context is a necessary component of the manufacturing process.

Accordingly, PDC requests that EPA account for existing waste

management practices that occur at mining facilities in applying LDR requirements. Specifically, PDC believes that EPA should adopt the Phase III point of generation proposals, including the "battery limits" option, and clarify the option's application to waste streams commonly aggregated and managed at integrated mining facilities.

RESPONSE

The Agency thanks the commenter for supporting EPA's re-examination of point of generation issues. The Agency did propose several point of generation options in the Phase III rulemaking, however, many of these issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P022
COMMENTER Phelps Dodge
RESPONDER HM
SUBJECT POG
SUBJNUM 022
COMMENT

In its discussion of Option 2, EPA presents several situations which would be excluded from the Option 2 controls. 60 Fed. Reg. at 43,660. For example, wastewaters that meet the UTS at the point of generation would be excluded. Additionally, wastewaters that do not exceed 100 parts per million by weight ("ppmw") of total volatile organics on an annual average determined at the point of generation would not be subject to the air emission controls. PDC believes that these exemptions should not be determined at the point of generation. Rather, as noted above, PDC believes that the application of these exclusions should be determined after treatment has occurred to remove the characteristic. It simply does not make sense to apply controls to surface impoundments that manage wastes which do not pose risks to the environment or human health after decharacterization. Additionally, it- is difficult to determine the effectiveness of treatment and/or controls when the wastes already satisfy the UTS or are already within a certain concentration of total volatile organics.

RESPONSE

The Agency did propose several point of generation options in the Phase III rulemaking, however, many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P024
COMMENTER Union Camp
RESPONDER HM
SUBJECT POG
SUBJNUM 024
COMMENT

H. Redefine the "point of generation" to unit process
EPA needs to redefine the "point of generation" definition in order for the Pollution Prevention exemption to be useful. UCC sees a significant problem in attempting to use the Pollution Prevention Compliance Alternative as a way to obtain an exemption from the Phase IV regulations by the shear number of points of generation that would likely have to be analyzed.

RESPONSE

The Agency did propose several point of generation options in the Phase III rulemaking, however, many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P024
COMMENTER Union Camp
RESPONDER HM
SUBJECT POG
SUBJNUM 024
COMMENT

A manufacturing facility may have significant number of characteristic waste streams which would need to be sampled and analyzed to determine the total amount of a specific UHCs that is generated at the facility. This enormous amount of points will create a huge amount of costs associated with sampling and analysis, and deciding which streams to address in minimizing pollution. Further it will be difficult to demonstrate compliance with the exemption. Such a situation will likely keep facilities from even considering using this exemption criteria with the subsequent disadvantage that the facilities are addressing treatment of wastes as opposed to minimizing the generation of wastes.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P024
COMMENTER Union Camp
RESPONDER HM
SUBJECT POG
SUBJNUM 024
COMMENT

There is a need to redefine "the point of generation" in order to make this exemption at all appealing. Such a redefinition was discussed in Section IV.D of the LDR Phase III proposal (60 FR 11702). Locating the point of generation to the "unit process" or the "battery limit" of the facility units would significantly reduce the number of waste streams that would need to be addressed when using the Pollution Prevention exemption option. This will make this option much more workable to facilities with the ultimate advantage of promoting Pollution Prevention.

RESPONSE

The Agency did propose several point of generation options in the Phase III rulemaking (including unit process and battery limits), however, many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P024
COMMENTER Union Camp
RESPONDER HM
SUBJECT POG
SUBJNUM 024
COMMENT

It is WCC's recommendation that EPA redefine the definition of "point of generation" to be the "unit process" as recommended by UCC and AF&PA during the Phase III comment period. UCC also believes other option discussed during the Phase III comments such as "battery limits" are also plausible.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P024
COMMENTER Union Camp
RESPONDER HM
SUBJECT POG
SUBJNUM 024
COMMENT

I. EPA should complete the change to the "point of generation" definition prior to promulgation of any Phase IV regulations.

In the preamble to the proposed Phase III LDR regulations (60 FR I 1702, Sec. IV.D) EPA requested comments on changing the definition of point of generation as it applies to wastewater streams. The regulatory community is waiting to see how EPA will react to the received comments. EPA's reaction could have a significant impact on the applicability of the Phase IV LDRs since two of the basic applicability questions are "Is the waste a hazardous waste at the point of generation?", and "Does the decharacterized waste contain underlying hazardous constituents at concentrations greater than their respective Universal Treatment Standard levels at the point of generation of the decharacterized waste?"

EPA should complete its review of potentially altering the "point of generation" definition prior to the promulgation of the Phase IV regulations so that the regulated community can determine the impact of the regulations without the concern that the applicability may change at a later date. Therefore, EPA should not promulgate Phase IV regulations until it has announced any changes to the definition of the point of generation.

RESPONSE

The Agency did propose several point of generation options in the Phase III rulemaking, however, many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P024
COMMENTER Union Camp
RESPONDER HM
SUBJECT POG
SUBJNUM 024
COMMENT

UHC brought in from other waste streams (not hazardous in past) may be carried into CWASIs and transferred to sludge to increase UHC above UTS. Treatment of the regulated constituents brought in from non hazardous wastes should not be subject to Phase IV control.

Sludges are not always disposed in landfill. Some may be beneficially used as is done at several of our paper mills for its nutrient and soil conditioning value. Also it is very common for municipal sludge to be utilized in this manner instead of being disposed into a landfill. These sludges serve useful purposes and should not be subject to pretreatment for UHC's prior to land application. For example, WCC's Prattville, Al mill uses sludge from its one selected CWASI on crop land for its nutrient value and water retention value. Many states and local governments have rules on land application which are protective of human health and environment.

RESPONSE

Today’s rule does not address the issue that the commenter raises because it is outside the scope of the rule. However, EPA shall consider this issue in the future.

DCN PH4P024
COMMENTER Union Camp
RESPONDER HM
SUBJECT POG
SUBJNUM 024
COMMENT

Other sludges high in fiber may be used for fuel value and should not be subject to pretreatment for UHC's. Any UHC's would be controlled by pollution control devices on the combustion unit or destroyed by the combustion process.

RESPONSE

This issue is outside the scope of today's rule. The Agency will, however, consider this issue in the future.

DCN PH4P024
COMMENTER Union Camp
RESPONDER HM
SUBJECT POG
SUBJNUM 024
COMMENT

We agree with the EPA that sampling for only UHC identified in the characteristic wastewater at the point of generation. Sampling for sludges prior to removal may be required under EPA's proposal. If sludge is removed and stockpiled while awaiting sampling & analysis, improper management could be construed. How will this be addressed by EPA?

RESPONSE

Today's rule does not address the issue that the commenter raises because it is outside the scope of the rule. However, EPA shall consider this issue in the future.

DCN PH4P024
COMMENTER Union Camp
RESPONDER HM
SUBJECT POG
SUBJNUM 024
COMMENT

Sludge (p. 43673 2 col) EPA says sludge in place to a release pathway separate from the leaks pathway. We agree with this and also feel sludges in place would tend to retard any leakage due to the build up of sludge and other fine particles.

RESPONSE

The Agency thanks the commenter for supporting EPA's position on sludge.

DCN PH4P031
COMMENTER Department of Energy
RESPONDER HM
SUBJECT POG
SUBJNUM 031
COMMENT

2. p. 43663, col. 2 -- EPA indicates that management standards are described for controlling leaks, sludges, and air emissions from surface impoundments accepting decharacterized wastes. EPA seeks comment on these standards, "including the possibility of adopting standards for certain of the potential problems and not others, e.g., finalizing standards for leaks and air emission control, but not for sludge control."

If EPA decides to promulgate an Option 2 regulatory program, DOE would support not adopting standards for sludge control. As in previous Departmental comments on LDR-related notices, DOE urges EPA to allow evaluation of wastewater treatment system surface impoundment sludges on their own merit, using either sampling and analysis or process knowledge to determine what management is warranted in order to protect human health and the environment. This approach would allow control of such residuals when appropriate, but would not require continued control when the residuals no longer pose risks to human health or the environment. Comment I.H.5.b, item 1 below offers additional remarks on why it should not be necessary to impose controls on sludges.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P031
COMMENTER Department of Energy
RESPONDER HM
SUBJECT POG
SUBJNUM 031
COMMENT

I.H.4.b. Applicability

1. p. 43669, col. 1 -- EPA defines the term "regulated constituents" as UHCs that are present in characteristic wastes at the point of generation and prior to decharacterization at concentrations that are greater than UTS levels. The Agency further indicates that:

"Only these regulated constituents must be considered in complying with the management standards for leaks. UHCs present in a characteristic waste at levels less than or equal to UTS are not subject to the proposed management standards for leaks."

DOE believes that defining the term "regulated constituents" in the manner suggested here is unnecessary and will likely cause confusion. EPA has promulgated a definition for "underlying hazardous constituent" (UHCs) which reads as follows:

Underlying hazardous constituent means any constituent listed in §268.48, Table UTS -- Universal Treatment Standards, except vanadium and zinc, which can reasonably be expected to be present at the point of generation of the hazardous waste, at a concentration above the constituent-specific UTS treatment standards[40 CFR 268.2(I); 60 FR 244, January 3, 1995].

However, EPA seems to ignore the existing definition of UHC in its formulation of the new definition for "regulated constituents." DOE suggests that by using "UHC" in a manner inconsistent with its regulatory definition, EPA creates confusion. Further, in the past, EPA has used the term "regulated constituents," without specifically defining it, to mean the constituents in a listed hazardous waste for which LDR treatment standards have been set (e.g., see 60 FR11702, 11727 (referring to a table showing "regulated constituents, by waste code," where adding either a wastewater or nonwastewater UTS was proposed)). Therefore, it seems inconsistent and confusing to create a new, definition for "regulated constituents" for use in the limited context of the LDR Phase IV proposed management standards for leaks from surface impoundments. DOE suggests that proper use of the term "UHC" [i.e., as defined under 40 CFR268.2(I)] would make such a definition unnecessary.

RESPONSE

Today's rule does not address the issue that the commenter raises because it is outside the scope of the rule. However, EPA shall consider this issue in the future.

DCN PH4P031
COMMENTER Department of Energy
RESPONDER HM
SUBJECT POG
SUBJNUM 031
COMMENT

I.H.5. Proposed Management Standards for Sludges

I.H.5.b. Rationale

1. p. 43673, cols. 2&3 -- EPA states that the evaluation of sludges under Option 2 (i.e.,to determine if the sludges pose a significant risk) will not be required until the sludges are removed from the surface impoundment. This is because in-place sludges are not believed to be a release pathway separate from the leaks pathway. When removed from the impoundment, if sludges contain hazardous constituents in excess of the UTS, treatment will be required prior to disposal. EPA notes that it could be argued that even no treatment of sludges would satisfy the requirement of RCRA-equivalent treatment since generation of sludges constitutes a new point of generation.

DOE agrees that in-place sludges should not be considered a separate release pathway for hazardous constituents, and that controls directed at leaks should provide adequate protection for human health and the environment (i.e., without placing additional controls on in-place sludges).The Department also concurs that nonhazardous sludges need not be treated at all in order to achieve equivalency with the treatment required by RCRA Subtitle C LDR standards. Treatment of sludges is unwarranted unless, upon removal, the sludge is independently found to be characteristically hazardous, and therefore, pose a threat to human health or the environment. DOE holds the view that for characteristic wastes, treatment residues (such as impoundment sludges) having a different physical form, and possibly different treatability group, than the original waste should not be managed based on the characteristics of the original waste. Instead, such treatment residues should be judged based on their own characteristics. This position is consistent with the rules regarding treatability groups articulated by EPA in the LDR Third Third Final Rule [55 FR 22520, 22661-22662 (June 1, 1990)]. Hence, DOE believes that sludges removed from surface impoundments receiving decharacterized wastes should not be required to undergo treatment, unless such sludges exhibit a hazardous characteristic themselves. However, as EPA has pointed out, a compliant Subtitle D surface impoundment would (by definition) never produce sludge

that exhibits a hazardous characteristic.
Consistent with this position DOE's comments on prior LDR proposed rulemakings encouraged EPA to apply the change of treatability group principle (instead of "waste code carry-through") to certain treatment residues, including sludges generated in wastewater treatment surface impoundments accepting decharacterized wastes. DOE continues to encourage EPA to allow evaluation of such treatment residuals on their own merit.

RESPONSE

The Agency thanks the commenter for supporting EPA’s policy on the evaluation of sludges for hazardous constituents.

DCN PH4P033
COMMENTER CMA Carbon Disulfide Panel
RESPONDER HM
SUBJECT POG
SUBJNUM 033
COMMENT

The Panel also believes that EPA's current interpretation of the "point of generation" is overly stringent. The Panel urges EPA to implement revisions to the definition of the "point of generation" as recommended by CMA.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P034
COMMENTER CMA UIC Task Force
RESPONDER HM
SUBJECT POG
SUBJNUM 034
COMMENT

Limit the circumstances under which segregation for Treatment of underlying hazardous constituents in characteristic wastes is required.

RESPONSE

This issue is outside the scope of today's rule. The Agency will, however, consider this issue in the future.

DCN PH4P034
COMMENTER CMA UIC Task Force
RESPONDER HM
SUBJECT POG
SUBJNUM 034
COMMENT

Clarify that residues from pretreatment of injected wastes are newly-generated wastes, irrespective of the individual stream's treatability group prior to aggregation, and therefore the residues are only subject to treatment requirements for characteristic wastes if they, themselves, exhibit

RESPONSE

This issue is outside the scope of today's rule. The Agency will, however, consider this issue in the future.

DCN PH4P036
COMMENTER American Iron & Steel Inst
RESPONDER HM
SUBJECT POG
SUBJNUM 036
COMMENT

It has long been EPA's position that when a sludge is generated from the treatment of a"wastewater" (as defined for purposes of the LDR program at 40 C.F.R. § 268.2(f)), there is a change in "treatability groups," and therefore a new "point of generation" for regulatory purposes.

See, e.g., 55 Fed. Reg. 22,520, 22,661-62 (June 1, 1990). Under this approach, if the sludge is non-hazardous at this point of generation, it is not subject to any RCRA regulations, including the LDR program. Id. This EPA position was not challenged in the Chem Waste II case, and was not undermined in any way by the Court's decision. See 60 Fed. Reg. at 43,656. On the contrary, the Court appeared to envision that non-hazardous sludges generated in CWA surface impoundments would not be subject to any LDR requirements. See 976 F.2d at 24 n.10 (stating only that "any hazardous precipitate or other hazardous material generated during CWA treatment must be managed in accord with subtitle C" (emphasis added)). Accordingly, undercurrent law, EPA need not develop new regulations for non-hazardous sludges generated in CWA-regulated surface impoundments.

Indeed, it would be arbitrary for EPA to impose LDR requirements on non-hazardous sludges removed from non-hazardous waste surface impoundments that manage formerly characteristic wastes. If a non-hazardous sludge were removed from a hazardous waste surface impoundment (as might happen if the impoundment received only characteristic wastes and qualified for the "treatment in surface impoundment" exemption of RCRA § 3005(j)(11) and 40C.F.R. § 268.4), it would not have to meet any LDR requirements, due to EPA's policy on changes in treatability groups qualifying as new points of generation (which the Agency is not revisiting in the context of hazardous waste impoundments). There is no apparent reason why non-hazardous sludges that are removed from non-hazardous waste surface impoundments should be subject to more stringent regulation. Consequently, these wastes should remain exempt from any LDR requirements. Just like sludges from hazardous waste surface impoundments, from non-hazardous waste surface impoundments that do not receive formerly characteristic wastes, and indeed from all other sources (including tanks),

sludges from non-hazardous waste impoundments that receive formerly characteristic wastes should be evaluated when they are initially generated, and subjected to LDR requirements only if they constitute RCRA hazardous wastes at that point.
Perhaps most importantly, non-hazardous sludges generated in impoundments managing formerly characteristic wastes do not merit additional control under RCRA, because any risks posed by releases of constituents from those sludges are adequately addressed by existing regulatory programs. Many state solid waste programs already regulate the handling and disposal of industrial solid wastes, including sludges from non-hazardous waste impoundments. EPA's Part 258 criteria for municipal landfills, which require the installation of liners and leak detection systems, also provide substantial protection of the environment from risks posed by the disposal of non-hazardous wastes, including sludges. Under the RCRA corrective action program, EPA can require that sludges generated in non-hazardous waste impoundments that are located at permitted or interim status TSDFs be removed from the impoundments and managed in a protective manner, either on-site or off-site. Finally, in order for non-hazardous waste surface impoundments to remain outside the scope of Subtitle C regulation, the sludges generated in them cannot be hazardous wastes by virtue of either the RCRA hazardous waste "listings" or the RCRA "characteristics." In this way, RCRA Subtitle C imposes certain limits on the risks associated with sludges that are generated in and removed from non-hazardous waste surface impoundments. In light of all of these regulatory controls, there is no reason to impose further controls, under the RCRA land disposal restrictions program, on non-hazardous sludges removed from impoundments that receive formerly characteristic wastes.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule. **Also, as the commenter notes, the change of treatability group principle continues to apply.**

DCN PH4P036
COMMENTER American Iron & Steel Ins
RESPONDER HM
SUBJECT POG
SUBJNUM 036
COMMENT

Non-hazardous waste surface impoundments that do not receive formerly characteristic wastes clearly should be excluded from any Phase IV regulations because the wastes that they receive are not prohibited from land disposal and, indeed, are beyond EPA's jurisdiction under Subtitle C. Similarly, if an impoundment receives formerly characteristic wastes, but those wastes meet the universal treatment standards at the point of generation, the impoundment should be excluded from any Phase IV controls. In this case, the wastes already meet the "minimize threat"standard of the LDR program and thus, once again, are not prohibited from land disposal. EPA itself has recognized the necessity and appropriateness of these limitations on the Phase IV land disposal restrictions. See 60 Fed. Reg. at 43,657, 43,660. Accordingly, there is little need to address the limitations further in these comments.

AISI is concerned, however, that EPA is interpreting the "point of generation" for purposes of the LDR program in a manner that is inappropriate and unnecessarily stringent. In the Phase III LDR proposal, EPA appeared to recognize some of the problems associated with its current interpretation of the "point of generation," and requested comments on various possible approaches for modifying that interpretation. See 60 Fed. Reg. at 11,715-17. AISI believes that the best approach, and perhaps the only lawful approach, would be the "battery limits" approach suggested by the Chemical Manufacturers Association ("CMA"). Under this approach, all of the residues associated with the manufacture of a single product, or group of related products, could be combined before a determination is made as to whether the wastes are prohibited from land disposal under the LDR program. For example, if an iron and steel facility separately aggregated all of the residues from steel making (including the furnace, casting, milling, and finishing processes), all of the residues from ironmaking, and all of the residues from the manufacture of coke and coke by-products, a determination could be made on each of the three waste streams (or, if appropriate, any combination of these residues), without evaluating residues within the individual process units.

AISI believes that this approach is essential to ensure that the

LDR regulations do not conflict with the admonition of Congress that RCRA "do[es] not authorize the EPA ... to intrude into the production process or production decisions of individual generators." S. Rep. No. 284,98th Cong., 1st Sess. 6 (1983). See also S. Rep. No. 988, 94th Cong., 2d Sess. 26 (1976)(RCRA "does not establish any federal authority with respect to decisions in the manufacturing process."). In addition, this interpretation would allow for dilution that is "part of the normal process that results in the waste," which Congress specified should not be considered a form of impermissible dilution. S. Rep. No. 284, 98th Cong., 1st Sess. 17 (1983). The "battery limits"approach also would have a number of important practical benefits, such as facilitating point of generation determinations (which otherwise might have to be made on hundreds or even thousands of streams within hard-piped collection systems), encouraging efficient and legitimate wastewater treatment, easing monitoring burdens, and eliminating the need for evaluating streams that are generated on a one-time or occasional basis (e.g., spills or residues from batch processes).These benefits likely could be obtained without significantly affecting the overall mass loadings of hazardous constituents entering the environment, or otherwise undermining the goals of the LDR program. See 60 Fed. Reg. at 11,715-16.

For these reasons, AISI encourages EPA to adopt the "battery limits" approach for identifying the "point of generation" of wastes for purposes of the LDR program. The adverse consequences of the Agency's current approach already are quite severe, and are likely to be magnified substantially as a result of the Phase III and Phase IV LDR rules. Accordingly, it is important that EPA change its interpretation of the "point of generation" as soon as possible, and certainly no later than the date of promulgation of the Phase III rule.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P036
COMMENTER American Iron & Steel Ins
RESPONDER HM
SUBJECT POG
SUBJNUM 036
COMMENT

If EPA nevertheless concludes that additional sludge controls are warranted under RCRA, the Agency should finalize its proposal to exclude sludges from biological and post-biological impoundments. In addition, EPA should exempt sludges generated in surface impoundments at TSDFs that have RCRA permits or are operating pursuant to interim status, sludges that are disposed at facilities that meet the criteria for new municipal solid waste landfills under RCRA Subtitle D or other applicable state regulatory requirements, and sludges that are destined for reclamation. Each exemption is discussed separately below.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P056
COMMENTER Westinghouse
RESPONDER HM
SUBJECT POG
SUBJNUM 056
COMMENT

4. Westinghouse supports the continued application of the principle stated by EPA in the Third Third rule that generation of a new treatability group is considered to be a new point of generation and thus a new point for determining whether a waste is prohibited (See 55FR 22661-662). This interpretation was discussed, but not challenged, in the U. S. Court of Appeals in Chemical Waste Management vs. EPA, 976 F.2d 2 (D. C. Cir. 1992) which suggests that it is not in question. Therefore, wastewater treatment sludges not exhibiting a characteristic are not prohibited, even though they may have been derived from a prohibited wastewater. It would be beneficial for EPA to reassert this in this rule as well.

5. The EPA should clarify when generators must determine what underlying hazardous constituents (UHC) are present in the waste. Specifically, are applicable UHC for treated streams and residues always based upon the designation at the initial point of generation for the waste? Westinghouse supports efforts to establish reasonable parameters for determining what constitutes a point of generation requiring an UHC evaluation. Does a residue ever constitute an initial point of generation requiring an UHC determination? Furthermore, if wastes are aggregated in tank systems to facilitate centralized treatment, how do changes in treatability group affect the UHC monitoring requirements for the waste being treated or for residues that are generated?

RESPONSE

The Agency thanks the commenter for supporting EPA's re-examination of point of generation issues. Many of these issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P059
COMMENTER Exxon Chemicals Americas
RESPONDER HM
SUBJECT POG
SUBJNUM 059
COMMENT

3. On the Point of Generation definition, ECA supports a "process area" approach for making LDR determinations

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P059
COMMENTER Exxon Chemicals Americas
RESPONDER HM
SUBJECT POG
SUBJNUM 059
COMMENT

5. ECA requests EPA to clarify that wastewater treatment sludge is a new treatability group

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P059
COMMENTER Exxon Chemicals Americas
RESPONDER HM
SUBJECT POG
SUBJNUM 059
COMMENT

3. Point of Generation: ECA Supports a "Process Area" Approach for Making LDR Determinations

In the preamble of the proposed LDR Phase III rule, EPA solicited comments on a number of approaches to define the point of generation for wastewaters for the purpose of making LDR determinations. A key factor to consider in assessing alternate approaches is the potential significant regulatory burden that may be placed on large industrial complexes.

As background, large industrial facilities manage wastewaters from hundreds or thousands of sources within a manufacturing complex. One Exxon Chemical plant has over 1600wastewater sources. Oftentimes these wastewaters are hard-piped directly into sewer systems and are not readily accessible for sampling and analysis. Wastewater stream flows can be continuous, intermittent, or very infrequent (e.g. annual shutdown cleanouts), and the composition of any one stream may vary as a function of the type of product being produced at a particular point in time, as well as the efficiency and operating conditions of the manufacturing process.

If each individual wastewater source was defined, for LDR Phase III and IV rulemaking purposes, as the point of generation, a generator would be required to analyze/assess each stream to determine whether it is hazardous, what the underlying hazardous constituents are in hazardous wastewaters (either through analysis or process knowledge), and, if necessary, what treatment method is required. For large facilities with many wastewater streams this would impose a significant burden for classification, record keeping, and in many cases analyzing large numbers of individual streams, many of which are not easily accessible.

The environmental benefits associated with this approach are minimal versus allowing for reasonable aggregation of streams in Process Areas (certainly the benefits do not justify the extensive costs involved).

ECA supports a Process Area approach for making LDR determinations in chemical operations. A Process Area can be defined by the equipment and associated facilities included within a geographic boundary which are used to either process materials to a primary product (which often times is used to describe the unit) or

provide a utility for common use among other processes within a facility (e.g. steam generation). Generally these process areas are within the operational control of a discrete operating organization and the assets/costs are collected separately. The wastewater exit point(s) from the Process Area would define the LDR applicability. These points are where specific wastewater lines leave the geographic boundary circumscribing operations of the Process Area. Use of Process Area for making LDR determinations would lessen the burden of analyzing or assessing individual wastewater streams, while recognizing in a common sense fashion the practical realities of operating a manufacturing process.

Contrary to EPA's comments in the preamble, Process Areas can easily be defined in chemical manufacturing operations. Manufacturing facilities are typically subdivided by a product designation or cost center. ECA recognizes that not all industrial sectors can be divided into Process Areas as well as the chemical industry. This difficulty, however, should not be the basis for establishing an overly burdensome approach for the chemical industry. If Process Areas cannot be defined, a manufacturer should still have the option to use the"Streams from a Single Process" or "Similar Streams Generated by Similar Processes"options which EPA outlined. However, because of the physical layout of most chemical facilities, these two options would have limited benefit to the chemical industry.

RESPONSE

The Agency thanks the commenter for supporting EPA’s re-examination of point of generation issues. Many of these issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P059
COMMENTER Exxon Chemicals Americas
RESPONDER HM
SUBJECT POG
SUBJNUM 059
COMMENT

5. ECA Requests EPA To Clarify that Wastewater Treatment Sludge is a New Treatability Group

ECA agrees with EPA's interpretation that the generation of a new treatability group is the new point of generation for purposes of determining where LDR prohibitions attach. Sludges from wastewater management in CWA/CWA-equivalent systems should be considered restricted wastes only if they are themselves hazardous at their point of generation. This approach provides a clear line of demarcation and avoids the difficulties associated with determining new treatability groups every time a waste is altered in some respect. EPA SHOULD make this approach explicit in the Phase IV rule.

CWA wastewater treatment sludges are typically of high volume and low toxicity, do not exhibit any hazardous characteristics, and do not pose a threat to human health and the environment. Such large volumes of low toxicity material that is not causing substantial threats should not be covered by LDR requirements unless the sludge itself is determined to be a hazardous waste

As currently written, the LDR Phase IV rule would trigger the need to identify UHCs that exceed UTS even for sludges that are non-hazardous. This is inconsistent with the new treatability group concept and the comment EPA makes in the preamble that "it can be argued that even no treatment of sludges is equivalent to subtitle C LDR controls. This is because generation of sludges is usually a new point of generation at which the newly-generated waste is reevaluated to determine if it is subject to the LDR standards. If non-hazardous, the sludges would not be so subject" (60 FR 43673).

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR

treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule. **EPA agrees that the change of treatability group principle remains in force as well.**

DCN PH4P060
COMMENTER American Dental Association
RESPONDER HM
SUBJECT POG
SUBJNUM 060
COMMENT

> With regard to the proposed Option 2 regulations regarding sludge, ADA believes that no additional treatment requirement for prebiological sludge is necessary as a legal or practical matter. As discussed in the Notice, 60 Fed. Reg. 43673, generation of the sludge (e.g., upon removal from the surface impoundment) constitutes a new point of generation for RCRA purposes. Where the sludge is non-hazardous, there is no need, or legal basis, to subject the material to RCRA treatment requirements. Also, as stated above, EPA's Part 503 program already regulates the use and disposal of sludge. Subjecting sludge to requirements under a new, separate regulatory program would unnecessary burden surface impoundment facilities and the many entities whose wastes are treated there.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P061
COMMENTER BP Chemicals
RESPONDER HM
SUBJECT POG
SUBJNUM 061
COMMENT 4) The Agency should promulgate the LDR Point of Generation rulemaking prior to finalizing the Phase IV management standards.

RESPONSE

The Agency has decided to address certain specific point of generation issues in the Phase IV rulemaking, along with finalizing management standards. Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P061
COMMENTER BP CHEMICALS
RESPONDER HM
SUBJECT POG
SUBJNUM 061
COMMENT 4) The Agency should promulgate the LDR Point of Generation rulemaking prior to finalizing the Phase IV management standards. In the proposed Phase III LDR Rule (60 Fed. Reg. 11702, March 2, 1995), the Agency solicited comments from the public on the issue of establishing an alternative point of generation definition for the decharacterized wastewater streams potentially subject the Phase III and IV rules. The point of generation definition is critical in determining which waste streams and waste management units will be subject to the Phase IV rules. Depending on where the point of generation is established, the applicability of the Phase IV rules and potential compliance options and associated costs cannot be determined. In April 1995, BP Chemicals submitted comments on the point of generation issue strongly encouraging the Agency to adopt the so called "Battery Limits" option. We believe this option offers significant logistical advantages and cost savings to the regulated community without any adverse impact to the effectiveness of the LDR program. The decharacterized ICRT wastes themselves are relatively low risk streams. The potentially huge reduction in monitoring, control and recordkeeping offered by the Battery limits option is more than justified given the actual risks posed by the streams. We urge the Agency to finalize an alternative LDR Point of Generation rule prior to finalizing the both the Phase III and Phase IV rules.
RESPONSE

The Agency has decided to address certain specific point of generation issues in the Phase IV rulemaking, along with finalizing management standards. Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P064
COMMENTER Dow Chemical
RESPONDER HM
SUBJECT POG
SUBJNUM 064
COMMENT

Sludges do not need to be further regulated under Phase IV LDR to achieve equivalent treatment as EPA has already stated (55 FR 22661-62 and 60 FR 43673). Sludges removed from an impoundment must be evaluated to determine if they are hazardous since they are considered anew point of generation (60 FR 43673). If the residues are hazardous, the land disposal restrictions attach and the sludges would have to be treated to meet UTS prior to land disposal. If the sludges are not hazardous, they would not be regulated by Subtitle C but would be required to comply with any applicable state waste management program. Sludges not removed from impoundments would be addressed by measures implemented for leaks (60 FR 43673).

Finally, there are an abundance of air regulations promulgated by EPA that appropriately and extensively address air emissions. These air rules include existing and future MACT standards promulgated under 40 CFR Part 63, the new NSPS regulation for VOC wastewaters, State RACT rules addressing VOCs in wastewater as part of non-attainment requirements, NESHAP rules for Benzene waste, and state air permitting rules required under EPA New Source Review Programs. These programs are sufficient to address the potential for air emissions from non-hazardous surface impoundments. Adding a separate program for these impoundments is redundant and unwarranted.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P066
COMMENTER API
RESPONDER HM
SUBJECT POG
SUBJNUM 066
COMMENT

B. The "Treatability Group Doctrine" Was Not Addressed In The "Third-Third" Decision.

As part of the Third-Third LDR rule, EPA determined that when a prohibited characteristic waste changes treatability groups, this creates a new point of generation for purposes of determining if the land disposal restrictions apply. As EPA observes, the treatability group doctrine was not challenged as part of the "Third-Third" litigation, nor was it addressed by the court in the "Third-Third" decision." 60 Fed. Reg. 43656.Under EPA's previous pronouncements, the application of the treatability group rules to characteristic wastes was straightforward. See, examples of treatability group doctrines applied to characteristic wastes, 55 Fed. Reg. at 22662. As EPA itself pointed out In the "Third-Third" preamble, this approach to treatability groups:

provides a clear line of demarcation, avoids the enormous difficulties of determining new
points of generation every time a hazardous waste is altered in some respect, and avoids having an initial waste's status as prohibited determined in all cases by some later management of a residue derived from the initial wastes.

55 Fed. Reg. at 22661. EPA has not suggested any reason, other than an overaggressive reading of the "Third-Third" decision, to reverse this longstanding agency policy. Consequently, EPA should not change the "treatability group doctrine."

Unfortunately, while EPA seems to support the "treatability group doctrine" In the early pages of the Phase IV preamble, the sludge management standards presented in Option 2 undermine the "doctrine." Instead of the trigger for sludge treatment being the TC levels (as would be the case if the "treatability group doctrine"was followed), EPA designated UTS levels as the trigger for requiring LDR treatment of sludges. EPA should therefore reexamine its position and maintain the "treatability group doctrine."

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton

signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P066
COMMENTER API
RESPONDER HM
SUBJECT POG
SUBJNUM 066
COMMENT

Land based ABT units are designed to be well mixed systems. In our Phase III comments, API demonstrated that the contaminant concentration throughout the ABT unit are statistically equivalent to those in ABT effluent. This demonstrates that the water throughout the unit is well treated. Consequently, any leaks that may occur from ABT impoundments will be of treated water, and therefore do not require any further controls. Further, the TCLP extracts from the biosludges at the four refineries in the ERM-Southwest study are several orders of magnitude below the UTS for wastewater (typically more than 1000 times lower than UTS), confirming EPA's finding that the sludges from biological treatment units do not pose a threat to groundwater.

2. Sludges Should Not Be Further Regulated Under This Rule. Wasted sludges from surface impoundments do not pose significant risks. The above referenced ERM-Southwest study (Appendix A) also collected sludges from four petroleum refineries. Total PAH analyses from sludges at all four refineries showed that the levels were all below UTS. Furthermore, TCLP analyses performed on these sludges for both metals and PAHs indicate that all parameters were much less than UTS limits. In fact, metals TCLP analyses were all at least three orders of magnitude below TCLP limits, and PAH analyses were all less than one part per billion. It is clear therefore, that the sludge serves to stabilize the fraction of constituents not biodegraded, effectively complexing them into the biomass. As a result, refinery ABT sludges do not pose a significant environmental threat after their removal from wastewater impoundments, and should not be subject to any additional regulation.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR

treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P075
COMMENTER Elf Atochem
RESPONDER HM
SUBJECT POG
SUBJNUM 075
COMMENT

The more serious problem is that further LDR notification and certification requirements apply when residuals from the regeneration of spent activated carbon are shipped off-site by the regeneration facility for subsequent management. Again, at least in the case of nonhazardous residues, it appears that the paperwork required must include "a description of the waste as initially generated." 40 C.F.R. §268.9(d). It thus appears that the regeneration facility would be required to list the waste codes and treatability groups that applied at the point of generation to any characteristic or formerly-characteristic wastes that were treated with any of the spent carbon from which the regeneration residues were in turn derived. In addition, the regeneration facility would need to identify the underlying hazardous constituents present in these "distant ancestor" wastes, again unless residues will be monitored for all UTS constituents prior to land disposal. Id.

RESPONSE

Today's rule does not address the issue that the commenter raises because it is outside the scope of the rule. However, EPA shall consider this issue in the future.

DCN PH4P080
COMMENTER Eastman
RESPONDER HM
SUBJECT POG
SUBJNUM 080
COMMENT C. Sludges Are Prohibited Only If They Are Themselves Hazardous Under option 2 in the proposed rule, sludges removed from prebiological CWA surface impoundments that accept decharacterized hazardous wastes would have to meet UTS levels. Eastman believes that no additional controls for sludges are warranted for the following reasons. First, as the Agency has stated, controls for sludges residing in the impoundments, separate from controls that address impoundment leakage, are not needed. "...EPA does not believe in-place sludges would be a release pathway separate from the leaks pathway. Put another way, by controlling leaks (as explained in the previous section), any risks posed by sludges while in the impoundment should be accounted for." (60 FR 43673) Secondly, sludges represent a new point of generation when they are removed from the impoundment and are, therefore, subject to land disposal restrictions only if they are hazardous (exhibit a hazardous characteristic) at the time they are removed. (see Wow) "EPA also reiterates that, as a legal matter, it can be argued that even no treatment of sludges is equivalent to subtitle C LDR controls. This is because generation of sludges is usually a new point of generation at which the newly-generated waste is reevaluated to determine if it is subject to the LDR standards. If non-hazardous, the sludges would not be so subject (i.e., would not be prohibited wastes). See 55 FR 22661-62. Thus, literal application of an equivalence test would result in no treatment of these sludges, since the sludges will be non-hazardous wastes by definition (they cannot be hazardous wastes because they are being generated in subtitle D impoundment), and so would not require further treatment under the standard subtitle C approach." (60 FR 43673) As the Agency has properly recognized, sludges removed from a nonhazardous impoundment are not hazardous (because they were generated in a nonhazardous impoundment) unless they are determined to be hazardous (exhibit a hazardous constituent) at the point that they are removed. No land disposal restrictions attach to the removed sludges unless they exhibit a characteristic. In its Phase III discussion of sludges generated from the treatment of characteristic wastes in CWA impoundments (60 FR 11709), the

Agency says that "Under EPA's existing interpretations of the rules, such sludges are usually considered to be prohibited wastes only if they are themselves hazardous. This is because generation of a new treatability group is considered to be a new point of generation for purposes of determining where LDR prohibitions attach." In the initial proposed rule setting forth land disposal restrictions (LDR) the Agency recognized that the most effective and efficient way to develop treatment methods would be to divide wastes into treatability groups based on similar physical and chemical properties. See 51 FR 1677. The Agency recognized in this proposed rule that setting treatment standards on the basis of waste codes is not appropriate. "Because of the large number and variable nature of the waste within most EPA waste codes, it is usually not appropriate to evaluate treatment methods and their effectiveness on a waste code basis.... Waste may also be grouped according to the constituent properties since these properties influence waste treatability. For example, all waste containing volatile organic constituents may form one treatability group, while waste containing soluble organics may form another group. Other groups may consist of waste containing metals or cyanides." It follows from this position that in order to determine what treatment standards apply one must know what treatability group is involved. And the determination of a treatment standard can occur only after the treatability group is generated. EPA confirmed its use of treatability groups in making a determination of applicable restrictions in the final rule issued November 7, 1986, 51 FR 40572. In describing the sequence to be followed in determining LDR the Agency stated at page 40620: "Sequence 1 in the generator's decision-making process commences with a determination of the appropriate treatability group and corresponding Part 268 Subpart D treatment standard ... The Agency is requiring that applicable Part 268 Subpart D treatment standards for a restricted waste be determined at the point of generation." A statement that a change in treatability group creates a new point of generation is found in the final rule for land disposal restrictions for California list waste, 52 FR 25760 at page 25767, which in turn reiterated a statement found in 52 FR 22356 at 22357. In both instances the Agency explained an exception to the principal that treatment residues from prohibited waste must continue to be treated until they meet the treatment standard. As the Agency explains: "This is where treatment results in a residue that belongs to a different

treatability group than the initial waste and the Agency has already determined that there is inadequate nationwide capacity to treat the waste belonging to that group." As an example, the Agency described the incineration of an F001-F005 spent solvent that generates a scrubber water. Further treatment of the scrubber water is not required because ... this scrubber water belongs to a different treatability group ... It is obvious from this discussion that as the treatability group changes the determination of applicable land disposal restrictions changes also. It follows that since land disposal restrictions are determined at the point of generation (as described previously) then a change in treatability group is a new point of generation. See also 55 FR 22520 at 22544: "Additionally, this is in keeping with the general principal established in these rules that determination of whether a characteristic waste achieves BDAT must be reevaluated whenever a treatment residual is generated. Put another way, each new treatability group has a new point of generation for a characteristic waste." See also 53 FR 31138 at 31209: "Of course, if in the course of managing the waste a new treatability group is created, for example, scrubber water from the incineration of a nonwastewater, the treatment standard applicable to this new treatability group will apply." From the above it is apparent that from early on in the development of the land disposal restriction rules the Agency has emphasized both the concept of determining applicability of land disposal restrictions at the point of generation and the concept that treatment standards are based on treatability groups and that a change in a treatability group is a new point of generation. As EPA pointed out in the third-third rule, this approach to treatability group changes "provides a clear line of demarcation, avoids the enormous difficulties associated with determining new treatability groups every time a hazardous waste (in this case non-hazardous waste) is altered in some respect and avoids having an initial waste's status as prohibited determined in all cases by some later management of a residue derived from the initial waste". See 55 FR 2266. It is also apparent that the court in the third-third decision nowhere addressed the issue of a change of treatability groups or, for that matter the issue of treatability groups at all. Thus, EPA cannot rely on the court decision as a mandate to change its position on point of generation or treatability groups. If these changes are to be made they must be made on their own merits and not as a requirement of the court.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule. **EPA also is not altering the change of treatability group principles discussed in previous FR notices.**

DCN PH4P080
COMMENTER EASTMAN
RESPONDER HM
SUBJECT POG
SUBJNUM 080
COMMENT 3. Sludges At 60 FR 43673, EPA acknowledges that any concerns about sludges residing in nonhazardous CWA impoundments are addressed by the same measures that control impoundment leakage. Therefore, no additional control is warranted to address sludges in the impoundment. EPA cannot arbitrarily attach land disposal restrictions to sludges when they are removed from the impoundment. Sludges aren't subject to a determination as to the applicability of hazardous waste regulations until they are removed from the impoundment. When the sludges are removed from the impoundment, they represent a new point of generation, and land disposal (or any other RCRA requirements) requirements attach to them only if they exhibit a characteristic of a hazardous waste. The sludges cannot be presumed inherently hazardous (and thus subject to LDR requirements) when they are removed, because they were generated in a nonhazardous impoundment. They are hazardous, and subject to RCRA subtitle C requirements, only if they exhibit a hazardous characteristic when removed from the impoundment.
RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P089
COMMENTER ASTSWMO
RESPONDER HM
SUBJECT POG
SUBJNUM 089
COMMENT

(2) Treatment standards for underlying hazardous constituents should be applied at the point of disposal rather than the point of generation.

Many of the issues surrounding the application of treatment standards to underlying hazardous constituents can be addressed by applying these treatment standards at the point of disposal.

For the purposes of land disposal restrictions, at the point that a waste is generated, the waste should be evaluated to determine if it is restricted. If the waste is restricted, it may be treated, as necessary. At the point of disposal, the waste should be re-evaluated to determine if the waste is prohibited. If the waste meets its treatment standards, it is no longer prohibited and may be land disposed. Under these circumstances, a generator or the receiving facility of waste that was restricted as generated and no longer prohibited as disposed would be required to document or demonstrate how the waste was treated and that the treatment method(s) used to meet the treatment standard did not involve dilution. Such documentation could be retained in the facility's file, or submitted upon request, and would directly address the issue of dilution by requiring the generator or facility to demonstrate dilution was not used to avoid LDR requirements.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P091
COMMENTER FMC
RESPONDER HM
SUBJECT POG
SUBJNUM 091
COMMENT II. FMC Opposes the New Term "Point of Origination". EPA has proposed to add the new term "Point of Origination" in classifying materials as wastes. FMC is opposed to this addition and instead recommends that EPA clarify the "Point of Generation" and use this term in lieu of "Point of Rejection", "Headworks" and "Point of Origination". The use of multiple terms with respect to the same proposition only produces confusion. This confusion, since 1980, has caused numerous misinterpretations that have resulted in problems between the regulated community and the EPA. 13/ RCRA §3004(h)(3) EPA needs to clearly define the "Point of Generation". FMC has previously expressed support for a "battery limits" approach to "Point of Generation" /14 This would include revising 40 CFR §260.10 by adding the definition of "Point of Generation" as: "The point at which wastes become subject to Subject C regulation and at which land disposal restrictions apply is the point of exit of material from a process, except for aqueous wastes managed in Clean Water Act (CWA) or CWA equivalent systems, where the point of generation is defined as the wastewater discharge point(s) for the process area (also commonly termed "battery limits")." It is FMC's understanding that EPA is planning to issue a Federal Register notice clarifying (and perhaps amending) its interpretation of the point of generation of hazardous wastes. This issue is crucial, because a determination of the point of generation can determine whether a material is a hazardous waste at all, and what LDR standards are applicable. Even more fundamental, clarification of the point of generation will determine whether a material is a waste at all. This clarification could eliminate certain waste streams from Subtitle C regulation (or clarify that they never should have been included in the first place). Thus, the clarification could have a significant effect on the upcoming LDR rules and on Hazardous Waste Identification Rule (HWIR), and should be issued before any of those rules are finalized. /14 R.J. Fields to USEPA, 511/94, Docket No. F-95-PH3P-FFFFF, pg 14
RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton

signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P092
COMMENTER Union Carbide Corp.
RESPONDER HM
SUBJECT POG
SUBJNUM 092
COMMENT

I.H.3The discussion of phase 2 emissions standards refer to the "point of generation" and the "point of origination." EPA should clarify what is intended for off-site treatment facilities.

RESPONSE

The Agency believes that this point is not at issue because many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P094
COMMENTER General Motors Corp.
RESPONDER HM
SUBJECT POG
SUBJNUM 094
COMMENT

Wastewater Treatment Aggregation for Treatment - Typical Wastewater Treatment facilities at manufacturing facilities have been designed in such a fashion so as the contaminated water requiring treatment is segregated into at most two or three streams (that is, oily wastewater and wastewater requiring metals treatment). These wastewaters are aggregated at the headworks ofthe separate wastewater treatment trains and then processed in a semi-batch manner. This particular arrangement of the equipment establishes a "central point" within the facility for wastewater treatment and thus allows for manageable labor allocation, maintenance, capital spending and hazardous chemical handling. To do, as this proposal suggests, that is, treat hazardous waste streams (wastewater streams flowing to wastewater treatment) at each point of generation is technically and administratively impossible. As mentioned in the Case Study No. 2, below, large industrial complexes could have upwards of 10,000 points of entry in the wastewater treatment system. To identify let alone control these discharges at the point of generation would be extremely costly both in capital and labor

The treatment of waste streams at each point of generation to eliminate hazardous waste characteristics by separation of specific constituents would cause increased risk and worker exposure. The danger to the workers comes from an increased risk due to the handling of hazardous wastewater treatment chemicals (sulfuric, sodium hydroxide, etc.) in a production environment as opposed to a dedicated wastewater treatment facility. Additionally, the treatment of specific hazardous constituents by individual process units would dictate the use of a large work force with a correspondingly escalated probability of exposure. Labor bargaining agreements would require minimum staffing levels even though many of these treatment units would be small with relatively insignificant waste volumes treated. This would cause the establishment of a very inefficient system of labor and capital.

The establishment of many hazardous waste treatment processes would penalize generators that chose to operate without a Part B permit by minimizing waste storage times. Most of the treatment

processes that would be required could not fit within the current regulatory exemptions (such as elementary neutralization). This would greatly increase the regulatory burden placed on a facility's compliance staff and require the consumption of significant agency resources in permitting and enforcement. Agency initiatives under way to reduce the administrative burden on generators treating waste would help to mitigate the impact of this rule but an increased burden would still be placed on the generator and the delegated RCRA authority.

Case Study No. 1 - Foundries which utilize impoundments for the aggregation of water and sand used in the casting process for purposes of recycling of both may have upwards of 100 points of entry (points of generation) wastewater system. Some of these points of generation could discharge acidic wastewaters that meet the definition of hazardous waste because of the unlikely problem with pH controllers or because of ion exchange regenerative3. Foundries recirculate (reuse) water at a flow rate of approximately 18 million gallons per day and discharge to stream approximately 0.23 million gallons per day or in percentage terms; 98.7% of the water used within a foundry is used and reused. Sand is recirculated at a rate of approximately 5 million tons per year and purchased and disposed at a rate of approximately 300,000 tons per year or in percentage terms; 94% of the sand used within a foundry is used and reused.

High recirculation rates are involved in the foundry process (that is, water and sand are reused many times To attach LDRs to either sand or water that is currently being reused and recycled could result in a lowering of the recirculation rates within the process which would result in the more frequent direct sewage or disposal of these materials. The recirculation rates for the water and sand in use if Options 2 or 3 of Phase IV are passed will be based upon UTS contaminant levels and not technical feasibility and as such would become counter indicative of the goals of pollution prevention.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR

treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P094
COMMENTER General Motors Corp.
RESPONDER HM
SUBJECT POG
SUBJNUM 094
COMMENT

Case Study No. 2 - The proposed regulations seem to imply that the UTS (Universal Treatment Standards) levels at the point of environmental impact attach to those UHC (Underlying Hazardous Constituents) present from sources that were a hazardous waste at the point of generation. This implication would allow generators to "back-out" the mass of UHC coming from sources that are not hazardous waste at their point of generation. However, in order to do this a generator would have to measure flow and concentration of each UHC at each of the points of generation (both hazardous and nonhazardous) within his process. It is not uncommon for large manufacturing complexes to have upwards of 10,000 points of generation (processwastewater contributors - both hazardous and nonhazardous) being aggregated in wastewater treatment system. To properly characterize all these steams, in order to conduct a mass balance, the analytical cost alone (sampling and flow measuring excluded) would exceed $15,000,000 per manufacturing facility (UHC scans cost approximately $1,500 each).

RESPONSE

Today's rule does not address the issue that the commenter raises because it is outside the scope of the rule. However, EPA shall consider this issue in the future.

DCN PH4P094
COMMENTER General Motors Corp.
RESPONDER HM
SUBJECT POG
SUBJNUM 094
COMMENT

Point of Generation

Discussion of Legislative History in the Phase III proposal (60 FR 11707) describes the legislative intent with regard to dilution of hazardous constituents either intentionally (diluting for purposes only to meet LDR) and unintentionally (dilution that occurs as part of the manufacturing process). Footnote 5 (60 FR 11707) states:

"The Committee intends that dilution to a concentration less than the specified thresholds by the addition of other hazardous waste or any other material during waste handling, transportation, treatment, or storage, other than dilution which occurs as a normal part of a manufacturing process, will not be allowed." iv (emphasis added)

The language of the first sentence of this passage refers to dilution of waste during waste handling, treatment, or storage and as such would still be prohibited from land disposal.

Congress simplied that intentional dilution is prohibited for those wastes that have distinctly entered the"strictures" of RCRA (or conversely exited the manufacturing process), that is it (the hazardous waste) is being handled or managed after it is generated, transported, treated or stored.

Factors such as persistence, toxicity, mobility, and propensity to bioaccumulate at the point of environmental impact should be considered when determining the need for expansion of the Land Disposal Restrictions into Subtitle D wastes and units.

For purposes of the Land Disposal Restrictions "the point of generation" is irrelevant along with what has occurred to a particular contaminant prior to its possible entry into the environment.The concern of EPA is "what is the waste possibly doing to the environment"; therefore, concern and focus should be on "the possible entry into the environment", and not on the regulatory status of the contaminant when it was first existed. If EPA is concerned with contaminants possibly entering the environment then the regulations should be written as such. These regulations should regulate all streams regardless of whether or not the waste stream is a decharacterized waste.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P095
COMMENTER GE
RESPONDER HM
SUBJECT POG
SUBJNUM 095
COMMENT

As recognized by EPA, the only clear holdings the court made regarding CWA surface impoundments are that formerly characteristic waste may be managed in them without compliance with Subtitle C, that treatment to attain RCRA treatment standards may be accomplished inimpoundments, and that formerly characteristic wastes must meet RCRA treatment standards only upon exiting impoundments.11 EPA's suggestion that "the opinion can be read more broadly" to include requiring LDR standards to prevent releases via routes other than through wastewater discharge is incorrect. EPA founded its suggested interpretation of the decision on twostatements the court made: (1) that the RCRA land ban requirement may not be thwarted by cross-media transfers of untreated hazardous constituents; and (2) that non-Subtitle C regulation of CWA surface impoundments is necessary to ensure that waste remains in such impoundments only temporarily.12 In EPA's view, the first statement may require it to promulgate RCRA regulations reducing all environmental emissions from surface impoundments, and the second statement suggests that it is required to regulate CWA impoundment if all wastes do not, in fact, remain in them only "temporarily."13

EPA's reasoning is contrary to the decision. The court's statement regarding reduction of untreated hazardous constituents entering the environment was clearly directed at pollutant mass being discharged through the surface impoundment outfalls. This is particularly clear from 976F.2d 23, footnote 9, where the court provides an example of a mass-balance calculation of the amount of cadmium that would have to be removed from a mixed formerly-hazardous/never-hazardous waste stream to assure that effluent from the impoundment would contribute no more mass of cadmium to the environment than would be the case if the formerly hazardous waste stream was treated separately. Just as significant is the fact that, with the exception of volatilization of organic chemicals from formerly ignitable waste streams, the court never mentions any other route by which chemicals in surface impoundments might enter the environment. There is absolutely no indication that the court was presented with, o rconsidered, the issue of cross-media transfers of UHCs due to

air emissions, leaks, or sludge disposal.
The court's statement recognizing that formerly characteristic wastes are present in CWA impoundments only temporarily does not support EPA's broad reading. The court's point was that because wastes are present in CWA surface impoundments only temporarily, they should notbe subject to Subtitle C-type standards.14 EPA's observation that if a surface impoundment leaked, the wastes would not be there temporarily, is beside the point since this issue was not addressed by the court. Moreover, the entire tenor of the court's opinion was that CWA surface impoundments should not be regulated under Subtitle C because to do so would be contrary to the "accommodation" of the CWA under RCRA that was mandated by Congress.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P095
COMMENTER GE
RESPONDER HM
SUBJECT POG
SUBJNUM 095
COMMENT

Not only did the Agency not intend the Proposed Rule to apply to wastewater sumps, wetwells, and lift stations, it is unlikely that placement of materials in such units would be land disposal because such units are not the final resting place of wastes. In Chemical Waste Management, the court held that wastewater being managed in a surface impoundment was no trequired to meet land disposal standards prior to entering the impoundment. In distinguishing its decision from a previous decision in which land disposal standards had to be met before waste was placed in the land-based unit, the court noted that liquids are only placed in CWA surface impoundments temporarily, while in the previous case, the "land treatment" at issue represented the final resting place of the hazardous wastes.28 The court's decision makes clear that the land disposal restrictions were intended to apply to land-based units that represent the "final resting place" of hazardous waste. Wastewater sumps, wet wells, and lift stations, however, are not the final resting place of the wastewater. If fact, the wastes managed in such units generally reside in the unit for even less time that waste would generally reside in a surface impoundment. Typically, sumps, wet wells,and lift stations are designed to have waste residence times of much less than 24 hours. For these reasons, if the Agency adopts either Option 2 or Option 3, the Agency should clearly state that the Proposed Rule does not apply to units that (i) are constructed of reinforced concrete, (ii) are part of a wastewater collection system, and (iii) are designed and operated so that the residence time of waste managed in the unit is less than 24 hours. Such "exempted" sumps, wet wells, and lift stations should also include units meeting the above criteria and in which neutralization of wastewater is accomplished.

If the Agency determines that such units are subject to the requirements of Option 2, then the Agency should reevaluate the potential impacts of the Proposed Rule. As noted above, the background documents supporting the Proposed Rule clearly did not consider such sumps in estimating the potential costs and benefits of the Proposed Rule. Moreover, the Agency did not consider the potential risks posed by such units. Because of

> the tremendous number of such units in operation (which GE estimates to be at least equal to the number of surface impoundments previously identified) and the potential impact of having to bring such units into compliance with Options 2 or 3, the Agency must carefully review the costs, benefits, and risks associated with such units.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P095
COMMENTER GE
RESPONDER HM
SUBJECT POG
SUBJNUM 095
COMMENT

3. If the Agency adopts Option 2, the Agency should adopt GE's proposed version of the"battery limits" concept for determining the point of generation because the current rule for determining the point of generation is confusing and results in overbroad application of Option 2.

One of the most crucial concepts of the Proposed Rule, and any other land disposal standard, is the concept of "point of generation." Traditionally, the Agency has taken the position that land disposal restrictions apply at the point of waste generation.33 Similarly, under the Proposed Rule, it is at the point of generation that one must determine whether the wastewater exhibits a hazardous characteristic, whether the air emissions standard of Option 2 applies, or whether the wastewater is exempt from the Proposed Rule because levels of underlying hazardous constituents are below the universal treatment standards. Neither the Agency's regulations nor the Proposed Rule define "point of generation." In general, however, the Agency has traditionally taken the position that the point of generation, and therefore the point at which land ban restrictions apply, is the point at which a secondary material is first removed from the process in which it is produced. As has been previously noted, however,applying land disposal restrictions at the point of generation poses a number of difficulties.34 Consequently, the Agency requested comments on other approaches for determining applicability of land disposal restrictions. General Electric has previously submitted comments on this issue.35

In those comments, GE supported the adoption of a variation of the Agency's proposed "battery limits" approach. Under this approach, the determination of whether land disposal restrictions apply to wastewater would be made at the first readily accessible sampling point downstream of a process or group of processes.

As GE has previously pointed out, the "point of generation" approaches previously proposed by the Agency do not take into account the tremendous complexity of wastewater collection and treatment systems at large manufacturing facilities. Many of these plants, including most of GE's facilities, are older facilities that have grown in a somewhat haphazard fashion. As

such, the wastewater lines at GE's facilities are not always segregated by process or product. By defining the "point of generation" to be the first readily accessible sampling point downstream of a processor group of process, the Agency could avoid all of the practical problems that would be otherwise encountered in trying to determine wastewater characteristics at a point farther upstream.Accordingly, GE believes that the Agency should adopt this "point of generation" approach for determining applicability of Option 2.

RESPONSE

The Agency did propose several options for the determination of point of generation, however, many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P099
COMMENTER Ohio EPA
RESPONDER HM
SUBJECT POG
SUBJNUM 099
COMMENT

Sludge removal should be considered a point of generation of a new wastes stream. These sludges should fall under RCRA only when failing TCLP standards and otherwise be considered non-hazardous (55 FR 22661-62).

Solid waste facilities are not prepared to handle non-hazardous wastes involving treatment standard notifications and certifications. These Subtitle D facilities may also be very hesitant in handling wastewaters or wastewaters treatment sludges for fear of future liabilities under the hazardous waste programs.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule. **EPA also is not altering change of treatability group** principles discussed in earlier FR notices.

DCN PH4P100
COMMENTER Phillips Petroleum
RESPONDER HM
SUBJECT POG
SUBJNUM 100
COMMENT

IV. The "Treatability Group Doctrine" Was Not Addressed In the "Third-Third" Decision.

As part of the Third-third LDR rule, EPA determined that when a prohibited characteristic waste changes treatability groups, this creates a new point of generation for purposes of determining if the land disposal restrictions apply. The treatability group doctrine was not challenged as part of the "Third-third" litigation, nor was it addressed by the court in the "Third-third" decision. Under EPA's previous pronouncements, the application of the treatability group rules to characteristic wastes was straight forward. EPA has not suggested any reason, other than an overly aggressive reading of the "Third-third" decision, to reverse this longstanding Agency policy. Consequently, EPA should not change the "treatability group doctrine."

RESPONSE

The Agency thanks the commenters for the interest in this issue. It is not EPA’s intent to change the treatability group doctrine. In today’s rule, EPA is only clarifying specific point of generation issues.

DCN PH4P102
COMMENTER Chevron
RESPONDER HM
SUBJECT POG
SUBJNUM 102
COMMENT

5) Chevron Supports EPA's Interpretation That The Generation Of A New Treatability Group Is The New Point Of Generation For Purposes Of Determining Where LDR Prohibitions Apply.
For wastewater treatment sludges in non-hazardous surface impoundments, Chevron supports EPA's interpretation that the generation of a new treatability group is the new point of generation for purposes of determining where LDR prohibitions apply. Thus, sludges derived from wastewater management in CWA and CWA-equivalent impoundment systems should not be subject to LDRs unless they themselves are hazardous wastes.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P109
COMMENTER Ford
RESPONDER HM
SUBJECT POG
SUBJNUM 109
COMMENT

Option 3 requires waste streams to be treated such that the underlying hazardous constituents would meet the universal treatment standards at the "point of generation." Typical WastewaterTreatment facilities at manufacturing facilities have been designed so the industrial wastewater is segregated into at most two or three streams. That is oily wastewater and wastewater requiring metals treatment. These wastewaters are aggregated at the headworks of the wastewater treatment facility and then processed in a semi-batch manner. This particular arrangement of the equipment establishes a "central point" within the facility for wastewater treatment and thus allows for manageable labor allocation, maintenance and capital spending. To treat hazardous waste streams (wastewater streams flowing to wastewater treatment) at each point of generation is technically and administratively impossible. To identify and control these discharges at the point of generation would be extremely costly with respect to both capital improvements and labor, with minimal environmental benefit.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P113
COMMENTER Chemical Manufacturers Assn
RESPONDER HM
SUBJECT POG
SUBJNUM 113
COMMENT

A. EPA Should Not Promulgate Phases III or IV Until It Has Clarified Its Interpretation Of The Point of Generation.

EPA is planning to issue a Federal Register notice clarifying (and perhaps amending) its interpretation of the point of generation of hazardous wastes. This issue is crucial to facilities who will need to develop strategies for complying with Phases III and IV. The point at which a waste is either generated or prohibited will whether and what LDR standards are applicable. Thi sclarification could eliminate certain waste streams from either Subtitle C regulation (or clarify that they never should have been included in the first place) or the land disposal restrictions. Thus, the clarification could have a profound effect on the upcoming LDR rules and on HWIR, and should be issued before any of those rules are finalized. Indeed, it is hard to see how EPA can make a final decision on any these rules without deciding the point of generation issues, since the environmental and regulatory impact of these rules will change depending on how the Agency decides the point of generation issues. Thus, unless the Agency decides to choose Option 1, we urge EPA to refrain from finalizing either Phase III or Phase IV until after it has clarified the point of generation.

RESPONSE

The Agency did propose several options for the point of generation in the Phase III rulemaking, however, many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule. However, EPA has chosen to clarify certain specific point of generation issues in the Phase IV rule.

DCN PH4P113
COMMENTER Chemical Manufacturers As
RESPONDER HM
SUBJECT POG
SUBJNUM 113
COMMENT

h) EPA needs to redefine the "point of generation" definition in order for the Pollution Prevention exemption to be useful. (Item #8)

CMA sees a significant problem in attempting to use the Pollution Prevention Compliance Alternative as a way to obtain an exemption from the Phase IV regulations the sheer number of points of generation that would likely have to be analyzed.

A chemical facility could have on the order of a hundred or more characteristic wastestreams which would need to be sampled and analyzed to determine the total amount of a specific underlying hazardous constituent that is generated at the facility. This enormous amount of points will create a huge amount of costs associated with sampling and analysis, and deciding which streams to address in minimizing pollution, let alone the difficulty of demonstrating compliance with the exemption. Such a situation will likely keep facilities from even considering using this exemption criteria, with the subsequent disadvantage that the facilities are addressing treatment of
wastes as opposed to minimizing the generation of wastes.

There is a need to redefine the "point of generation" in order to make this exemption at all appealing. Such a redefinition was discussed in Section IV.D of the LDR Phase III proposal. Locating the "point of generation" to the battery limit of the facility units would significantly reduce the number of waste streams that would need to be addressed when using the Pollution Prevention exemption option. This will make the option much more workable to facilities with the ultimate advantage of promoting pollution prevention.

It is CMA's recommendation that EPA redefine the definition of "point of generation" to be the battery limits of the facility's units.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited

from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P113
COMMENTER Chemical Manufacturers As
RESPONDER HM
SUBJECT POG
SUBJNUM 113
COMMENT

1. CMA suggests that the Agency define the point of generation for wastes which polymerize on a rapid time frame.
"CMA requests that the Agency determine that materials that are undergoing rapid polymerization (i.e., within a few moments of removal from the process), without catalyst addition should be evaluated as to their physical state (i.e., liquid or solid using the paint filter test) once the material has reached standard temperature and pressure. Thus, a waste which is solid within minutes of being removed from a process should be viewed as a generated solid for purposes of waste classification.

RESPONSE

This question is outside the scope of the point of generation issue and has been addressed in the response to comments for POLYM.

DCN PH4P116
COMMENTER Occidental Chemical Co.
RESPONDER HM
SUBJECT POG
SUBJNUM 116
COMMENT

C. No treatment standards should be set for non-hazardous sludges.

OxyChem agrees with EPA that sludges produced in treatment impoundments should be considered new points of waste generation. RCRA Subtitle C sludge management constraints should apply only if sludges are hazardous wastes when removed from impoundments.

D. If Option 2 is selected, EPA should clarify requirements for CWA and CWA-equivalent impoundments where sludges are destined to be left in place.

Sludges produced in existing wastewater treatment impoundments that close with non-hazardous residues in place would not be subject to UTS standards unless sludges are removed. These units would, however, be subject to groundwater monitoring and corrective action, if necessary.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4P116
COMMENTER Occidental Chemical Co.
RESPONDER HM
SUBJECT POG
SUBJNUM 116
COMMENT

IV. Provide Flexibility and Cost Effective Alternatives

A. Requiring treatment of minor constituents in decharacterized wastewater before impoundments would disrupt our current wastewater treatment operations and would be prohibitively expensive for minimal environmental benefits.

OxyChem agrees with EPA and is also not in favor of Option 3. Our previous estimates indicated capital costs up to $25 million could be required to replace wastewater impoundments with tanks.

B. The definition of point of generation should be broadened.

If Option 2 or 3 is selected, as stated in our comments on the Phase III proposal, a "battery limits" definition is a practical way to simplify compliance determinations. Cost effective accommodation with existing collection and treatment systems will result from this approach.

RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4A070
COMMENTER FMC Corporation
RESPONDER HM
SUBJECT POG
SUBJNUM 070
COMMENT VIII. EPA Clearly Needs To Define The "Point Of Generation"

As Battery Limits, EPA needs to clearly define the "Point of Generation". FMC has previously expressed support for a "battery limits" approach to "Point of Generation".68 This would include revising 40 C.F.R. _260.10 by adding the definition of "Point of Generation" as: "The point at which wastes become subject to Subject C regulation and at which land disposal restrictions apply is the point of exit of material from a process, except for aqueous wastes managed in Clean Water Act (CWA) or CWA equivalent systems, where the point of generation is defined as the wastewater discharge point(s) for the process area (also commonly termed "battery limits")." It is FMC's understanding that EPA is planning to issue a Federal Register notice clarifying (and perhaps amending) its interpretation of the point of generation of hazardous wastes. This issue is crucial, because a determination of the point of generation can determine whether a material is a hazardous waste at all, and what LDR standards are applicable. Even more fundamental, clarification of the point of generation will determine whether a material is a waste at all. This clarification could eliminate certain waste streams from Subtitle C regulation (or clarify that they never should have been included in the first place). Thus, the clarification could have a significant effect on the Phase IV LDR and Phase IV Supplemental rules and on the Hazardous Waste Identification Rule (HWIR), and should be issued before any of those rules are finalized.

RESPONSE

The Agency did propose several options for the point of generation in the Phase III rulemaking, however, many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require

LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.

DCN PH4A084
COMMENTER Chemical Manufacturers As
RESPONDER HM
SUBJECT POG
SUBJNUM 084
COMMENT CMA Continues to Advocate a Battery Limits Approach for Defining the Point of Generation As we suggested -in our comments to EPA's proposed Phase III rule, CMA urges EPA to clarify the point at which a facility must determine that wastes are prohibited from land disposal. It is CMA's understanding that EPA is planning to issue a Federal Register notice clarifying (and perhaps amending) its interpretation of the "point of generation" for hazardous wastes. This issue is crucial to the RCRA program because the point of generation determine whether a material is a hazardous waste and what LDR standards are applicable. Thus, the clarification could have a significant effect on future LDR rules and on the Agency's Hazardous Waste Identification Rule (HWIR). Thus, as we recommended in our comments on the Agency's proposed Phase IV rules, EPA should clarify the point of generation before any of these rules are finalized.
RESPONSE

Many of the point of generation issues were resolved when, on March 26, 1996, President Clinton signed into law the Land Disposal Program Flexibility Act of 1996. This Act provided, among other things, that decharacterized wastes treated in CWA-regulated units are no longer prohibited from land disposal so long as they are not hazardous wastes at the point they are land disposed. The Act also required that EPA study the characteristics of such decharacterized wastes. If at some future time, the Agency determines that certain decharacterized wastes require LDR treatment standards, the EPA will revisit the options for point of generation that were presented in the Phase III rule.