APPENDIX H
FMC CORPORATION'S TREATMENT CAPACITY ANALYSIS DATA

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June 5, 1996

MEMORANDUM

To: Bill Kline, EPA

From: Raghu Raghavan, Mario Kerby, and Jim Laurenson

Subject: Completeness of FMC Corporation's Request for Two-Year National Capacity Variance from the Phase IV Land Disposal Restrictions

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This memorandum summarizes our preliminary assessment of the completeness of the request made by FMC Corporation (FMC) for a two-year national capacity variance (NCV) from the Phase IV LDRs for the company's elemental phosphorus mineral processing wastes. FMC made this request as part of its comments on the Supplemental Proposal to Phase IV LDRs (Comment # 70, submitted on April 24, 1996). Briefly, we still have the following questions concerning the FMC request for NCV:

(1) Will planned onsite treatment and waste minimization allow less than a two-year NCV?
(2) Will capacity shortfalls affect only FMC – thus, perhaps only a case-by-case extension is needed – or will other facilities (e.g., Monsanto) be affected?
(3) Will exemptions from the definition of solid waste reduce the required capacity?

If a case-by-case extension is desired, we believe other questions may need to be answered. The following provides additional details concerning our review of the FMC data.

FMC submitted a 106-page document commenting on the proposed rule and four additional volumes of information (Appendices 1-15) to support its comments. The first and largest section of the main document with FMC's comments is the request for a two-year NCV. Also, most of the appendices provide information supporting the NCV application. The supporting information includes copies of completed phone surveys and survey confirmation letters for 168 commercial treatment facilities that were contacted by a consultant of FMC to determine the availability of capacity for off-site treatment of four wastestreams generated during elemental phosphorus mineral processing operations at FMC. Any follow-up of the NCV survey conducted by FMC's technical staff is also documented.

Because FMC's request for an NCV (including attachments) is approximately 1,000 pages, we could perform only a preliminary examination of their contents. In brief, however, it seems that the proposed Phase IV LDR rule will uniquely affect the current operations of FMC for manufacture of elemental phosphorus in Pocatello, Idaho. Suitable alternative treatment capacity may not be readily available for at least three large-volume hazardous wastewater streams that are now being generated at this facility and land disposed (probably in Subtitle D surface

impoundments) on site. These three wastewater streams – Medussa scrubber blowdown, Andersen filter media rinsate, and furnace building washdown – are generated at a rate of 148 million gallons per year. Alternative treatment of these wastewaters will require pH adjustment for removal of cadmium, lead, and/or selenium from the wastewater streams, followed by dewatering and stabilization of the metal-containing treatment sludges. Also, the wastewaters are contaminated with normally occurring radioactive materials (NORM) that must also be removed during treatment. The pH adjustment step must take into consideration the generation of phosphine gas due to the presence of elemental phosphorus in the wastewaters. Transportation of wastewaters is estimated to require 30 rail tanks per day, and a special loading station would have to be constructed. Special safety requirements are associated with the transportation and other handling of elemental-phosphorus containing wastes. FMC has proposed management plans for these wastestreams that will include on-site waste minimization efforts, treatment technology development, and installation of treatment capacity by June 1998.

We believe that FMC's plans to build onsite treatment capacity and conduct waste minimization may mean less than a two-year NCV can be possible. The onsite treatment capacity will include a wastewater treatment plant and stabilization facility that appears to have been planned already. FMC's plans for alternative treatment of wastewaters on site, however, are based on an assumption that Andersen filter media rinsate will be eliminated by the end of the year 1996. This wastewater stream contains selenium, and FMC's past experience in technology development shows that stabilization of its wastewater treatment residuals cannot treat selenium below UTS. Therefore, if the plans to eliminate Andersen filter media rinsate fails, FMC will have to pursue a case-by-case extension to the NCV or alternate treatment standards after the end of an NCV.

Our review of the background document – "Identification and Description of Mineral Processing Sectors and Waste Streams" – developed to support the proposed Phase IV LDR rule indicates that there are two domestic producers of elemental phosphorus: FMC's facility in Pocatello, Idaho and Monsanto's facility in Soda Springs, Idaho. Monsanto did not submit comments on the proposed Supplemental Phase IV LDR rule. As FMC Corporation is the world's largest producer of elemental phosphorus, EPA's identification and description of this mineral processing sector and these wastestreams was based mainly on the FMC process. However, we believe that EPA may need to obtain and review information on waste generation and management at the Monsanto facility before granting an NCV – rather than a case-by-case variance – for mineral processing wastewater streams that contain elemental phosphorus. In particular, it may be necessary to confirm that the proposed Phase IV LDR rule will uniquely affect the current manufacturing operations of both FMC and Monsanto.

We also reviewed our capacity analysis for the newly-identified mineral processing wastes to determine if the information provided with FMC's request for an NCV would change either the methodology or assumptions used. Exhibit 3-1 of the background document identifies and characterizes the hazardous mineral processing wastes by commodity sector. In this exhibit, we identify two facilities (FMC and Monsanto) with processes to manufacture elemental phosphorus generate three wastewater streams with an estimated maximum quantity of 782,000 metric tons (206 million gallons) per year. This estimate is comparable with FMC's report that it generates

148 million gallons of hazardous wastewater. We also noted that the capacity analysis had assumed that two out of the three wastewater streams (over 99% of total quantity) may be recycled or decharacterized. This assumption also seems to be consistent with the report of FMC that a waste minimization effort is in progress at the facility. Thus, before granting a NCV for mineral processing wastewaters containing elemental phosphorus, we believe that EPA may need to rule out the possibility of these wastewater streams being exempt from classification as RCRA solid waste, and therefore exempt from LDR requirements.

In addition to assessing whether FMC's comments were sufficient for making a determination regarding an NCV, we conducted a preliminary evaluation whether FMC could meet the requirements for a case-by-case extension to the rule (40 CFR 268.5). However, a complete request for a capacity variance on a case-by-case basis must include an additional demonstration of the commitment of the applicant to construct or otherwise provide alternative treatment, recovery, or disposal capacity that meets with LDR standards. The request for a capacity variance must also describe in greater detail the technical and practical difficulties in providing the alternative capacity. In addition, the application for a capacity variance must confirm that the planned alternative capacity would be adequate for all the wastes affected by the proposed rule. Finally, the applicant must demonstrate that hazardous wastewater management units that will be in use at the facility until the development of alternative treatment capacity would be in full compliance with other regulations under RCRA Subtitle C. Although we have not been able to evaluate whether the information provided by FMC meets with all the requirements of 40 CFR 268.5, we believe that if FMC were requesting a case-by-case extension, they should be required at least to provide more information on the design and operation of surface impoundments or other units being used at present to manage the wastewater streams affected by the proposed rule. In addition, EPA would need to follow other procedures normally followed in applications for a capacity variance on a case-by-case basis (e.g., consulting with appropriate State agencies).

Please feel free to call Raghu Raghavan at (703)934-3417 or Jim Laurenson at (703)934-3648 if you have any questions or comment concerning this memorandum.

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June 26, 1996

MEMORANDUM

To: Bill Kline, EPA

From: Raghu Raghavan and Jim Laurenson

Subject: Follow-up on FMC Corporation's Request for Two-year National Capacity Variance (NCV) from the Phase IV Land Disposal Restrictions (LDRs)

This memorandum is a follow-up to our June 5, 1996 memo assessing the request made by FMC Corporation (FMC) for a two-year NCV from Phase IV LDRs on the company's elemental phosphorus mineral processing wastewaters. This memo provides additional information that we obtained from FMC, and it updates our previous assessment of the subject request made by FMC.

FMC conducted a national survey of commercial treatment, storage, and disposal (TSD) facilities to argue that required capacity is not available off site if their "large volume" mineral processing wastewaters will be affected by the Phase IV LDRs. Alternatively, FMC plans to conduct waste minimization and build onsite treatment capacity by June 1998. The waste management plans were submitted by FMC with its request for an NCV provided with their comments to the supplemental Phase IV LDR rule. EPA invited comments on a potential capacity variance for FMC in the May 10, 1996 Notice of Data Availability (NODA). In response to the NODA, FMC commented that the construction of onsite treatment facilities would be one of the options that FMC will evaluate during the NCV period. FMC plans to continue to explore the possibility of providing offsite treatment of the process waters affected by Phase IV LDRs at its elemental phosphorus manufacturing plant in Pocatello, Idaho. A second commenter on the NODA, Environmental Defense Fund (EDF), represented by the law office of David J. Lennett, believes that FMC's request for a capacity variance is more properly a request for a case-by-case capacity variance subject to the procedures given in 40 CFR 268.5, and that the information provided is insufficient for a case-by-case variance.

To determine if two years are required to implement FMC's waste management plans, as well as to assess the readiness of these plans for implementation, it was necessary to start obtaining the following types of additional information:

- How are the wastewater streams that will be affected by the Phase IV LDRs currently managed by FMC? Is any treatment of wastewaters performed now? Which land-based units receive these wastewaters now?

- As FMC continues to explore the possibility of providing offsite treatment of these wastewaters, is the company planning to set up the infrastructure necessary for

shipping the wastewaters off site (e.g., building a special loading dock and purchasing/leasing rail cars)?

- Because of the difficulties in stabilizing wastewater treatment residuals containing selenium, is FMC planning to construct a separate facility for onsite treatment of Andersen filter media rinsate (which is reported to be the only stream containing selenium)?

- Is FMC aware of other facilities that are manufacturing elemental phosphorus and generating hazardous wastes that are affected by Phase IV LDRs?

We contacted Mr. Arnold Feldman, Regulatory Compliance Manager, Environmental Services Department, FMC Corporation to discuss these topics. The information obtained by us during a phone conversation with Mr. Feldman is given below.

Current wastewater management practices. Mr. Feldman told us that the three wastewater streams affected by the Phase IV LDRs are currently received by a large surface impoundment (capacity over 100 acre-feet) onsite and then recycled to the process. This surface impoundment was RCRA permitted two or three years ago and meets with minimum technology requirements (MTR) as given in 40 CFR 264/265. The surface impoundment is located approximately 3/4 mile from the plant generating the wastewaters. A small tank (5,000 to 6,000 gallons capacity) receives the wastewaters near the plant before they are pumped to the surface impoundment. In addition to the three wastewater streams, some "contaminated solids" are currently disposed of in the surface impoundment. The disposal of solids will be terminated after the Phase IV LDRs become effective, however. The wastewater overflows from the surface impoundment to a series of ponds before it is recycled (after some clarification of the effluent) to the plant. Although there appears to be no other treatment of the wastewater taking place before it is recycled, it seems that the main role of the surface impoundment is to separate elemental phosphorus from the wastewater generated in the plant. (Analytical data on the three wastewater streams that will be affected by the Phase IV LDRs were submitted by FMC with its request for an NCV.) In order to maintain a minimum level of water at all times in the surface impoundment, water from the ponds is sometimes returned back to the surface impoundment. The retention period of the wastewater in the surface impoundment therefore varies with the level of production and the time of year. There is only a minimal release of phosphine gas taking place in the surface impoundment (mainly because the elemental phosphorus is always stored under water). It seems that the surface impoundment and ponds will continue to be used even in the future after installing wastewater treatment capacity on site. However, it is not known at present if the surface impoundment will be receiving wastewaters before or after treatment to precipitate toxic metals. (The main benefit of using the surface impoundment to receive wastewater before treatment is that the current practice of separating out elemental phosphorus before recycling the wastewater may continue without any change. However, it is not clear whether the final Phase IV LDR rule will permit the use of the surface impoundment in its current role despite the fact that the surface impoundment is permitted under RCRA Subtitle C and meets the MTR.) It seems that the final concept design for integrating the new wastewater treatment facility with other land-based units on site can be completed only after reviewing the final LDR rule.

Preparing for commercial treatment as an alternative. Based on the results of the national survey of commercial TSD facilities conducted by FMC, Mr. Feldman felt that offsite treatment of wastewaters cannot probably replace the need for building treatment capacity on site. Even the projected schedule for purchasing the rail cars by January 1998 (as mentioned in FMC's request for a two-year NCV) cannot really be achieved. It is necessary to first locate commercial facilities willing to consider treating FMC's wastewaters. Then, according to Mr. Feldman, these commercial facilities must agree to install special loading docks (at their expense) to receive the wastewaters for treatment. These investigations and negotiations cannot be completed within the next several months. Therefore, Mr. Feldman said, it is not possible to develop an alternative to onsite treatment of wastewaters within a period of two years.

Designing wastewater treatment onsite. As noted earlier, Mr. Feldman believes that the concept design of the onsite treatment facility can be completed only after knowing what the final Phase IV LDR standards are. (In particular, the final LDR standards will affect the selection of treatment methods for Andersen filter media rinsate. This wastewater stream has been generated only since 1991 when it became necessary to wash the filter media due to the presence of naturally occurring radioactive materials. Currently, FMC is hoping to eliminate this wastewater stream as an alternative to onsite treatment.) Even after the finalization of LDR standards and if it becomes necessary to treat Andersen filter media rinsate, it may be more cost-effective to treat all the wastewater streams at the same new facility. (The construction of two or more smaller wastewater treatment facilities instead of one combined facility might reduce the time required for designing and constructing each facility.) Mr. Feldman also noted that construction of a treatment facility cannot progress during five months (December through April) every year because of weather. The schedule provided by FMC in its request for a two-year NCV also did not take into consideration the time required for obtaining any permits for installing and operating the treatment facility. Mr. Feldman indicated that a complete schedule for building onsite treatment capacity is possible only after reviewing the final LDR rule and finalizing the concept for treating the wastewaters on site.

Other facilities manufacturing elemental phosphorus. Mr. Feldman stated that one other company manufactures elemental phosphorus using another proprietary process that does not generate hazardous wastes affected by the Phase IV LDRs.

Based on the additional information described above, it appears that FMC does not have a final concept design of the onsite treatment facility for the wastewater streams generated at its plant in Pocatello, Idaho. First, the need for treatment of wastewaters prior to discharging them to the existing permitted surface impoundment will depend on the applicability of the new definition of solid waste to these recycled materials and the treatment standards given in the final LDR rule. (Universal treatment standards (UTS) may apply to one or more of the following metal constituents found in the wastewaters: cadmium, lead, selenium, thallium, zinc and/or vanadium.) Second, the final concept design for treating wastewaters will depend on the results of FMC's current efforts to eliminate Andersen filter media rinsate. (It appears that the wastewater treatment needs may be reduced substantially if the Andersen filter media rinsate is eliminated or managed otherwise.) In addition, the weather conditions in Idaho will make it difficult to consider an accelerated construction of the wastewater treatment facilities after making progress in the engineering design of the facilities. Under these circumstances, it would be difficult to prepare a more detailed and complete schedule for

building onsite treatment capacity. Thus, based on the information provided by FMC, there seems to be little chance for finding offsite treatment capacity in the next two years and less than a two-year NCV does not appear to be sufficient for providing the alternative treatment capacity required by the wastewater streams affected by the Phase IV LDRs at FMC's plant in Pocatello, Idaho.

Please feel free to call Raghu Raghavan at (703)934-3417 or Jim Laurenson at (703)934-3648 if you have any questions or comment concerning this memorandum.

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November 11, 1997

M E M O R A N D U M

TO: Walter Alcorn, SAIC

CC: Bill Kline, C. Pan Lee, EPA

FROM: Maribelle Rodríguez, Jay Doraiswamy, James Laurenson

SUBJECT: Follow-up With FMC to Clarify the Data Discrepancies in their Comment Letters to the First and Second Supplemental Phase IV Proposed Rules

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This is a follow-up to our October 24, 1997 e-mail message and the conference call on November 5, 1997. Upon your direction, we contacted FMC to clarify the issues that we identified from reviewing their comment letters to the first and second supplemental Phase IV LDR proposed rules. In this memorandum we have summarized the information provided by FMC in response to our questions.

Data Discrepancies

FMC indicated that the data discrepancies found between their comment letters to the first and second supplemental Phase IV LDR proposed rules were a result of clerical error. The correct waste stream volumes are 630,000 gallons/year of Andersen Filter Media (AFM) rinsate and 280 million gallons/year for all six waste streams combined (148 million gallons/year for the original three waste streams and 132 million gallons/year for the three additional waste streams). They also indicated that the AFM rinsate has been eliminated completely and that the total waste volume for the remaining five waste streams is 279 million gallons/year.

Treatment and Management Practices

FMC indicated that a clerical error was made on the second paragraph on page 7 of the comment letter to the second supplemental proposed rule. In their comment letter, FMC stated that the newly identified non-wastewater streams are mostly water - “usually greater than 52 percent water in all instances.” The percentage of water content reported in their comment letter is not correct. The three non-wastewater streams identified by FMC are at least 82 percent water. This number was derived from the percentage of solid content in each of the three waste streams. The percentage of solids for each of the three non-wastewater streams are presented in the following table.

Waste Stream	Percentage of Solid Content
Non-Hazardous Slurry Assurance Process (NOSAP) Slurry	18
Precipitator Slurry	10
Phossy Water	2 to 4

At this point in time, FMC considers the identified wastewater and non-wastewater streams to be the same and intends to use the same treatment and management practices for all of them.

FMC's Petition for a NCV

FMC eliminated the AFM rinsate in 1996. Their petition for a NCV only includes the five remaining waste streams: the Medusa Scrubber Blowdown, the Furnace Building Washdown, the NOSAP Slurry, the Precipitator Slurry, and the Phossy Water.

We will coordinate with the RIA group to update the mineral processing database with this data and also incorporate this information in the capacity analysis background document. If you have any questions or comments regarding this memo, please call Jay at 703/934-3403 or Maribelle at 703/218-2508.

FMC Corporation

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FMC

November 21, 1997

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# of pages ▶ 5
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ISSN 7540-01-317-7368 5099-101
GENERAL SERVICES ADMINISTRATION

U.S. Environmental Protection Agency
RCRA Docket Clerk
Docket Number F-97-2P4A-FFFFF
RCRA Information Center (RIC)
5305W
401 M St., SW
Washington, DC 20460

Re: **Notice of Data Availability**
Land Disposal Restrictions Phase IV:
Second Supplemental Proposal on Treatment Standards for Metal Wastes and Mineral Processing Wastes, Mineral Processing and Bevill Exclusion Issues, and the Use of Hazardous Waste as Fill ([FRL-5919-9]
Docket No. F-97-2P4A-FFFFF

Dear Sir/Madam:

FMC Corporation takes this opportunity to submit comments on the notice of data availability published in the November 10, 1997, *Federal Register* (62 Fed. Reg. 60465, et seq.). FMC is submitting an original and two copies of its comments. Copies of the comments are available from FMC on computer diskette in ASCII (Text) format. Please contact Mr. Arnold Feldman at the phone number below if a computer diskette is required.

FMC Corporation is a multi-national company with business in agricultural chemicals, chemicals and specialized chemical products, defense products, minerals mining, food and specialized machinery, and petroleum equipment. FMC had 1996 sales of approximately $5 billion. FMC operates manufacturing and other facilities in 33 states within the United States. FMC is a major mining and mineral processing company. As proposed, the two-year national capacity variance (NCV) for the wastes generated by FMC Corporation at its Pocatello, Idaho, facility directly addresses the facility's ability to exist within, and comply with, the strictures of EPA's land disposal restrictions (LDR) program.

In response to an EPA supplemental proposed rule -- "Land Disposal Restrictions: Supplemental Proposal to Phase IV"[1] -- FMC submitted a petition on behalf of its elemental phosphorous plant in Pocatello, Idaho, (FMC Pocatello) for a two-year NCV from the Phase IV LDR requirements. The principal basis for the petition was, and continues to be, the lack of available capacity in the Untied States to provide Best Demonstrated Available Technology (BDAT) treatment for three FMC Pocatello process streams.

In its petition, FMC urged EPA to grant a two-year NCV for FMC Pocatello because there is no available treatment capacity, either at the Pocatello plant itself or elsewhere in the United States, for mineral processing waste streams that contain elemental phosphorous. FMC Pocatello asserted, and continues to assert, that the variance time period will enable the facility to develop and install potential on-site pollution processing and treatment technologies. FMC's determination regarding capacity was based on an exhaustive and thorough capacity evaluation that demonstrates a continued lack of treatment and transportation capacity currently available to handle the waste stream volumes generated at FMC Pocatello. The petition concluded that the lack of available treatment capacity, the unique characteristics of the waste streams, the need to develop a safe and effective treatment technology, transportation difficulties, and transportation costs necessitate that EPA grant a two-year NCV to allow FMC Pocatello to develop pollution prevention technologies, construct on-site treatment capacity, and/or identify off-site treatment facilities that can develop the capacity to treat these waste streams safely and reliably.

On May 12, 1997, EPA proposed a supplement to the January 25, 1996, propose rule.[2] EPA proposed to grant a two-year NCV for the three waste streams addressed in FMC's original petition. These "original" waste streams, for which adequate capacity does not exist, are Medusa Scrubber Blowdown, Anderson Filter Media (AFM) Rinsate, and Furnace Building Washdown.

Since it filed the NCV petition with EPA, FMC Pocatello has eliminated the generation of one of the three waste streams to which the NCV proposal applies, the AFM Rinsate waste stream. The elimination of this stream means that it would not be necessary for EPA to extend its grant of the proposed NCV to include the AFM Rinsate.

FMC has also since determined, however, to seek to have the NCV apply to three additional waste streams generated in the elemental phosphorous production process. Currently, EPA claims, and FMC disputes, that these three additional wastes are

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1 61 Fed. Reg. 2338 (Jan. 25, 1996).

2 62 Fed Reg. 26041.

hazardous wastes. If managed as hazardous waste, these streams would be subject to the Phase IV LDR requirements once they are made final. Based on the capacity evaluation results and responses by treatment, storage, and disposal facilities in the survey supporting that evaluation, there is inadequate treatment capacity to handle these additional waste streams in the United States.

This capacity determination is based on the fact that the composition of these three additional waste streams -- the Non-Hazardous Slurry Assurance Process (NOSAP) Slurry, Precipitator Slurry, and Phossy Water -- is nearly identical to the three waste streams for which EPA has proposed an NCV in all respects that are relevant to national capacity determinations. As with the three waste streams for which EPA has proposed a two-year NCV, the newly identified streams contain varying amounts of both naturally occurring radioactive materials (NORM) and elemental phosphorous. Like the three waste streams addressed in the original petition, it is possible that NOSAP Slurry, Precipitator Slurry, and Phossy Water could exhibit the Toxicity Characteristic (TC) in the event of process upsets due to the presence of heavy metals. Also, they all contain a variety of other metals, albeit below TC concentrations.

Unlike the three waste streams addressed in the original petition, these waste streams are defined as non-wastewaters under the LDR program. This difference, however, has no practical effect, because both the wastewater streams (original waste streams) and the non-wastewater streams (three additional waste streams) would be subject to identical treatment processes. Although technically the additional waste streams are non-wastewaters, they are for practical purposes mostly water. The following table provides information regarding typical solids content for the additional waste streams.

Waste Stream	Percent Solids
NOSAP Slurry	18
Precipitator Slurry	10
Phossy Water	1 - 3

In addition, it is significant to note that although the original waste streams and additional waste streams differ in this way, this difference does not alter the approach FMC is undertaking to develop the treatment processes for all of these waste streams. Currently, FMC intends to subject all of the remaining five waste streams, wastewater and non-wastewater alike, to identical treatment, such that the same national capacity restrictions that are relevant to the original waste streams are only that much more imposing when the three additional waste streams are considered.

The most significant reason for including the additional waste streams within the proposed NCV is the absence of existing treatment capacity for all of these waste streams

anywhere in the United States. Treatment facility representatives consistently rejected FMC Pocatello's waste streams due to the volume of the wastes in light of their associated NORM content; elemental phosphorous content; and/or generation of phosphine gas potential during treatment. The reasons treatment facilities could not accept the original three waste streams hold true for the additional waste streams. Thus, the three additional waste streams do not reduce the need for the NCV, but rather render its need more urgent. Just as the FMC Pocatello would be forced to shut down if it is unable to obtain an NCV for the original three waste streams, the same is true when the additional waste streams are considered alone, or in combination with the original waste streams.

Indeed, the volume of the additional waste streams is sufficient to add them to the NCV proposal. The total volume of the three hazardous waste streams addressed in the original petition exceeds 148 million gallons per year. The total volume of the three additional hazardous waste streams exceeds 132 million gallons per year. The combined total volume of the six waste streams exceeds 280 million gallons per year. As noted above, FMC Pocatello has successfully and entirely eliminated through its pollution prevention efforts the AFM Rinsate waste stream. When the AFM Rinsate stream is subtracted from the overall total volumes generated, the total volume of the remaining five waste streams exceeds 279 million gallons. For clarification purposes, the following table sets forth the most current data regarding volumes generated:

Waste Stream (original/additional)	Original Volumes (million gallons/year	Combined Production Volumes (million gallons/yr.)	Current Production Volumes (million gallons/yr.)
AFM Rinsate (original)	0.63	0.63	0
Medusa Scrubber Blowdown (original)	54.7	54.7	54.7
Furnace Building Washdown (original)	92.8	92.8	92.8
NOSAP Slurry (additional) AND Precipitator Slurry (additional)*	0	43	43
Phossy Water (additional)	0	89	89
TOTAL	148	280	279

* The maximum volume of Precipitator Slurry and NOSAP Slurry that would be produced in a year would be 43 million gallons.

Since 1990, waste minimization and elimination efforts have successfully reduced hazardous waste generation by 127 million gallons per year. These efforts are continuing concurrently with efforts to develop treatment processes for the remaining waste volumes. A schedule for completing development and on-site installation of treatment technology on a commercial scale has been defined and was submitted with the FMC's August 12, 1997, comments on EPA's Second Supplemental Proposal on the Phase IV LDRs.

FMC is unaware of other facilities that generate any of the five waste streams currently generated at the facility. In addition, FMC is not aware of any existing adequate treatment, recovery, or disposal capacity for these wastes.

The three additional waste streams are nearly identical to the three waste streams for which EPA has proposed the NCV and pose the same handling and safety concerns and issues addressed in FMC's earlier submissions. Therefore, because no capacity exists for the original wastes or the additional wastes, FMC maintains its request that EPA modify its two-year NCV proposal for the three FMC Pocatello wastes to include these additional waste streams. Thus, EPA's proposed NCV should apply to the additional three waste streams and the two remaining original waste streams for which the NCV was originally sought.

FMC would be pleased to meet with you, at your convenience, to discuss these comments. If you have any questions, please feel free to contact me at 215/299-6926 or Arnold Feldman, Regulatory Compliance Manager, Solid Wastes, in FMC's Environmental Services Department at 215/299-6576.

Sincerely,

Robert J. Fields

Robert J. Fields
Vice President
Environment, Health, Safety, & Toxicology