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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE ADMINISTRATOR

In the Matter of)	
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City of Yankton, SD,)	Docket No. NPDES-SD-0023396
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)	
Permittee)	

Clean Water Act - POTW Pretreatment Programs - Exemption For Small POTW's - Discretion of Permitting Authority.

Although the regulation (40 CFR § 403.8(a)) contemplates that the permitting authority has substantial discretion in deciding to override the exemption from pretreatment program requirements for POTW's having design flows of five mgd or less, that discretion is not unfettered and must be based on findings that a pretreatment program is warranted in order to prevent "interference" with the POTW or "pass through" and where the evidence established that the POTW's potential problems with toxicity were attributable to ammonia, that no categorical user of the POTW was a significant source of ammonia, and that the pretreatment program would be concerned principally with sources of pollution other than ammonia, it was held that, if the exemption is to have any meaning, the potential for "interference" or "pass through" must be shown to be actual and not merely theoretical and that the Agency had failed to sustain its burden of showing a pretreatment program was warranted.

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INITIAL DECISION

This is a proceeding under section 402 of the Clean Water Act (33 U.S.C. § 1342). The proceeding was initiated when the Director, Water Management Division, U.S. EPA, Region VIII, Denver, Colorado, pursuant to 40 CFR § 124.75, granted, by letter, dated October 30, 1989, the City of Yankton, South Dakota's request, made in letters, dated August 24 and October 18, 1989, for an evidentiary hearing on the terms of NPDES Permit No. SD-0023396, dated July 19, 1989. The sole issue for resolution is the propriety of the permit requirement that the City be required to develop and implement a pretreatment program for industrial users in accordance with section 307(b) of the Act and 40 CFR Part 403.

A hearing on this matter was held in Yankton, South Dakota, on September 20, 1991.

Based on the entire record including the proposed findings and conclusions and briefs submitted by the parties, I make the following:

FINDINGS OF FACT

1. The State of South Dakota has not been authorized to administer a permit program pursuant to section 402(b) of the CWA. Consequently, EPA is the permitting authority for the State of South Dakota.
2. Permit No. SD-0023396, dated July 19, 1989, effective September 1, 1989, authorizes discharges from the City of

Yankton's publicly-owned wastewater treatment works (POTW) to the Missouri River. Parts I.D and III.I of the permit require the City as permittee to develop and implement a program for enforcing the prohibition of discharges described in 40 CFR § 403.5, and applying and enforcing National Pretreatment Standards established by the U.S. EPA in accordance with sections 307(b) and (c) of the Act. The cited regulation generally prohibits the introduction into a POTW of any pollutants which will cause interference or pass through.

3. The City's POTW was initially constructed as a primary treatment plant in 1963 (Testimony of Mr. Eugene Hoag, Director of Public Works, Tr. 111; City Exh B). Improvements, consisting of a redwood media trickling filter, a final clarifier, chlorination facilities and other minor structural additions, intended to provide secondary treatment capability, were added in 1973. In 1976, it was determined that the City exceeded limits in its NPDES permit issued June 6, 1974, for BOD, and TSS for the period January 1975 through October 1976 (Stipulation and Settlement Agreement, United States v. City of Yankton, U.S.D.C., District of S.D., Civil No. 77-403; Administrative Record (AR), Document 20). With the assistance of an EPA grant of \$6,000,000, the violations were remedied, the POTW was further upgraded and secondary treatment capacity expanded in 1979 (Tr. 112, 121). There is no evidence of further permit violations.



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4. Part I.C of the permit required the City to conduct on a quarterly basis, beginning in the third quarter of the calendar year 1989, whole effluent toxicity testing (WET), otherwise referred to as acute static replacement toxicity tests, on a composite sample of the discharge. The testing consisted of an acute 48-hour static toxicity test using an aquatic insect, *Ceriodaphnia* sp., and an acute 96-hour static replacement toxicity test using fathead minnows five days (\pm 2 days) of age. Acute toxicity occurs when 50 percent or more mortality is observed for any species at any effluent concentration. The requirement that there be no acute toxicity in the effluent as demonstrated by the mentioned test was effective October 1, 1992.
5. Although toxicity testing was not a requirement of the City's NPDES permit at the time, experimental WET tests on a grab sample of the effluent were conducted at an EPA workshop in Brookings in June of 1988 (Testimony of Rodger Harts, Utilities Director for the City, Tr. 125, Exh C). Failure or partial failures of these tests were attributed to the fact the sample was chlorinated.^{1/} Other WET test failures by both *Ceriodaphnia* and fathead minnows were reported in tests on samples taken on February 23 and August 16, 1990.^{2/} A test

^{1/} The instant permit provides for samples to be taken prior to the introduction of chlorine.

^{2/} Tr. 92, 106-08; Testimony of John Jonas, Chief Plant Operator, City's Exh D. A summary of WET test results covering the (continued...)

reported on June 20, 1990, indicated both *Ceriodaphnia* and fathead minnows passed. This was attributed to rainy weather, which reduced ammonia concentrations. In a test reported on September 12, 1990, the 48-hour toxicity test using *Ceriodaphnia* failed, while the 96-hour toxicity test utilizing fathead minnows passed.

6. Tests referred to in finding 5 were conducted at ERA laboratories in Duluth, Minnesota. A retest of *Ceriodaphnia* conducted by ENSR Consulting and Engineering, Fort Collins, Colorado, on a sample collected on October 12, 1990, also failed. ENSR then conducted an acute toxicity characterization test and reported as follows:

"... The lab reported sufficient ammonia was present in the sample to account for all of the observed toxicity to both species. Be aware that we have not proven that ammonia is the cause of toxicity, however, we can conclude that:

1. The concentration of ammonia in the sample, in consideration of the observed PH levels in the test solutions, is sufficient to account for the magnitude of toxicity observed.

2. There was no evidence of toxins other than ammonia, given the complete absence of toxicity at $\text{PH} \leq 8.0$." (Jonas, City Exh D).

7. The ENSR lab reported that both *Ceriodaphnia* and fathead minnows failed the WET test on a sample collected on

²(...continued)
period June 7, 1988, to June 19, 1990, reflects that for the sample collected on February 23, 1990, *Ceriodaphnia* failed, while the fathead minnows passed (AR, Document 138).

November 8, 1990 (City Exh D). An acute toxicity characterization test of the sample using CO₂ was conducted and ENSR reported that sufficient ammonia was present in the sample to account for all of the observed toxicity (Id.) According to Mr. Jonas, the fourth-quarter WET test was repeated using CO₂, which indicated that ammonia was the likely cause of effluent toxicity. First and second quarter WET tests reported on samples taken on January 25 and April 15, 1991, failed. In each instance retests of the same sample using CO₂ passed and ENSR reported essentially as follows:

1. The concentration of ammonia in the sample in consideration of the observed pH levels in the test solutions is sufficient to account for the magnitude of toxicity observed.
 2. There was no evidence of toxicants other than ammonia given the absence of acute toxicity at pH \leq 8.1 (City Exh D).
8. Mr. Jonas testified that ENSR was given authority to do a toxicity identification evaluation (TIE), if anything other than ammonia were found (Tr. 92, 93). He stated that there was always enough ammonia in the samples to account for all of the observed toxicity and that no other toxicants to warrant a TIE were found.^{2/} The City has now been authorized to use

^{2/} Mr. Jonas indicated that in the presence of ammonia minnows should be the first to die (Tr. 94). He appeared, however, to be confused for he testified that ". . . you [have] never seen minnows
(continued...)

CO₂ on all WET tests of its effluent (EPA letter, dated June 25, 1991, City Exh E) and there have been no more reported failures of these tests.

9. Mr. Marshall Fischer, industrial pretreatment coordinator for EPA, Region VIII during the period August of 1980, until October of 1990, was involved in the review of the Yankton renewal permit application. He testified that approximately 20 industrial entities within the City were identified as having the potential for significant industrial releases into the POTW (Tr. 16). At least three of these firms were determined to be subject to categorical pretreatment standards at the time of a "spotcheck" visit in September of 1989 (Tr. 32). The decision to require a pretreatment program had already been made at the time of this visit. The 20 entities are listed on EPA Exhibits B and B1, which reflect that five firms are subject to categorical pretreatment standards specified in 40 CFR Parts 405 through 471.
10. Mr. Fischer recommended that a requirement for a pretreatment program be included in the City's permit. A memorandum signed by Mr. Fischer, dated April 18, 1989, attached to the Statement Basis by the SD DWR, dated December 22, 1988 (AR Document 60), reflects that the permit was adjusted to require

³(...continued)
be the first ones to die in any test from the present lab." (Id.) Under cross-examination, he attributed the reported instances of *Ceriodaphnia* failing and minnows passing (finding 5) to the inadequacies of the former [ERA] lab (Tr. 106-08).

a pretreatment program, but does not contain any findings or state any reason for the requirement. He testified that this recommendation was based primarily on the fact the POTW's capacity, thought to be 4.94 million gallons a day (mgd), was closely approaching the five mgd figure [at which a pretreatment program would be mandatory]^{4/} and upon the fact the City had experienced problems with industrial users in the 1970's.^{5/} He referred specifically to Alumax Extrusions, Inc. [a firm engaged in the manufacture of aluminum extrusions and subject to the categorical standards for aluminum forming point sources in 40 CFR Part 467], against which enforcement action had been taken [in 1988].^{6/} He pointed out that Alumax had a significant flow and a substantial number of metals and acids in its plant. Mr. Fischer also emphasized that results of WET tests indicated toxicity in the effluent and that it appeared the toxicity was due to something other than ammonia

^{4/} The letter to the City drafted by Mr. Fischer, responding to comments on the draft permit, submitted as part of his written testimony (EPA Exh E; AR Document 130), states that "Yankton's design treatment capacity borders on the 5 million gallon nondiscretionary threshold."

^{5/} Although EPA alleges that the Stipulation and Settlement Agreement in the District Court action against Yankton (finding 3) identified an industrial user still operating in the City as the cause of the violations (Brief at 2, 3), the Stipulation contains no such finding.

^{6/} Tr. 16, 17. The enforcement action referred to was a section 309, Class II administrative proceeding which was ultimately settled for \$35,000 (Alumax letter, dated December 22, 1988, EPA Exh F).

(Tr. 18). He considered that EPA had discretionary authority to require a pretreatment program and, based on national guidance and EPA policy, that neither specific findings of violation nor findings of pass through or interference were necessary (Tr. 24-26). The letter to the City (supra note 4) states in part that ". . . the volume of industrial inputs into the Yankton POTW are significant [sufficient] alone to warrant implementation of a local program."

11. Describing the problems with Alumax, Mr. Fischer explained that the firm exceeded the oil and grease standards for aluminum formers in its discharges to the POTW from the time the standards became effective in 1986 until sometime in 1988 (Tr. 18, 19). He testified that the limit was exceeded by more than 20 fold. Under cross-examination, he acknowledged that Alumax had substantially remedied their violations and, although he was no longer pretreatment coordinator, he was unaware of any violations involving metals or otherwise by the firm since that time (Tr. 22, 30).
12. Mr. Curt McCormick, Mr. Fischer's successor as pretreatment coordinator for Region VIII, has a BS in Botany and a MS in Zoology and Environmental Science. His past experience includes serving as pretreatment control officer for the City of Sand Springs, Oklahoma (Tr. 35, 36; EPA Exh D). He testified that nationwide a total of 624 POTW's with a daily average flow of less than five mgd had been required to implement pretreatment programs (Tr. 39-41; EPA Exh C).

Within South Dakota, the Cities of Aberdeen, Huron and Watertown, which allegedly have POTW's with design flows less than Yankton's, have implemented pretreatment programs (EPA Exh I). He did not know whether any of the municipalities having POTW's with flows less than five mgd had objected to the requirement. Mr. McCormick identified at least three categorical users or industries within the City of Yankton and a fourth, a metal finisher, which had recently moved to Yankton from Commerce City, Colorado.^{2/} Referring to WET test failures of the City's effluent, he testified that, although some tests indicated ammonia was the toxicant, other tests indicated toxicity was due to other causes (Tr. 45, 50). Based on his review of test reports, he opined that the most likely source was a metal. He pointed out that all of the categorical users were sources of metals. He acknowledged that he could not point to any specific test indicating metals were the cause of toxicity (Tr. 49, 50). He testified it was predictable that the addition of CO₂ would stabilize pH and remove toxicity, if ammonia were the principal source of toxicity (Tr. 51, 52).

13. Mr. McCormick affirmed that, if he were making a recommendation at present, he would recommend inclusion of a pretreatment program requirement. This recommendation would

^{2/} Tr. 43, 44; letter from South Adams County Water and Sanitation District, dated June 6, 1991, EPA Exh H.

be based on the City's industrial base and the fact WET test results indicate something other than ammonia was at least contributing to toxicity.^{8/} Asked specifically whether it was agreed that a pretreatment program would not have any effect on ammonia concentrations in the discharge, he replied in the negative, asserting that EPA viewed ammonia as a toxicant which would either have to be treated [by the POTW] or pretreated by industry, if industry were a significant source of ammonia.^{9/} He acknowledged that a pretreatment program would not effect ammonia discharges, if the ammonia were due to domestic or undefined "uncontrollable" sources.

14. Mr. John Mathrole, safety and environmental coordinator for Alumax, Yankton, testified that Alumax's problems with oil and grease were attributable to the use of soybean oil as a lubricant, coolant on the casting floor (Tr. 144-46). Although he did not begin his employment with Alumax until December of 1988, he had familiarized himself with the problem and its remedy.^{10/} He testified that when he arrived, a water

^{8/} Tr. 48. He testified that in reviewing hundreds of toxicity tests, he could not recall seeing any where toxicity was due principally or solely to ammonia when the insect died and the fish lived (Tr. 53).

^{9/} It should be noted that neither the Metal Finishing Point Source Category (40 CFR Part 433) nor the Aluminum Forming Point Source Category (40 CFR Part 467) contain standards for ammonia discharges.

^{10/} Tr. 146-47. He indicated his hiring was part of the remedial action by Alumax [to prevent future violations].

treatment plant had been installed in the cast house to separate or remove oil from water, the water being sent to the sewer. He further testified that Alumax had discontinued the use of soybean oil, using instead a light mixture of castor oil. He stated they have had no further problems with oil and grease and that any grease accumulation since was negligible (Tr. 148). From examination of Alumax records (test reports), Mr. Mathrole concluded that no metals or toxics were involved in the violation (Tr. 149-150).

15. Mr. Mathrole testified that Alumax used a mild sulfuric acid in its chromium base to take chromium out of the paint lab (Tr. 154-55). He further testified that Alumax used a solvent to cleanup the paint line. According to Mr. Mathrole, the only other chemical used in the plant, in addition to the acids and solvent, was caustic soda. He explained they had a treatment for the cast house water, a treatment for the paint room to remove chromium and turn it into a solid waste as well as treatment for the die shop, which removes caustics, metals and other impurities (Tr. 155). He regarded this pretreatment as effective in enabling discharges of Alumax's waste stream to the Yankton POTW.
16. According to Mr. Mathrole, EPA has not claimed that Alumax has committed any violations since settlement of the action involving oil and grease (Tr. 151). He testified that there had been two inspections by the State since he arrived at

Alumax and that no violations had been found.^{11/} He indicated that the City also sampled the Alumax effluent and that if Alumax had a high pH, Alumax would inform the City or the City would inform Alumax of that fact (Tr. 152). Under cross-examination, he testified that Alumax sampled [its effluent] on a quarterly basis for organics, toxics and BOD (Tr. 153). Regarding metals, he asserted that he had sampled for metals--chromium, cyanide, zinc and total toxics organics--three times in the last four months (Tr. 154). He explained that the City had an ordinance controlling everything Alumax discharged [to the sewer] such as metals, toxics and pH (Tr. 157). Mr. Mathrole attributed occasional high pH readings to failure of personnel in the die shop to timely replenish containers of acid used to reduce pH levels (Tr. 156). He regarded any pH over 10 as high and indicated that the lowest pH he had seen was 7.8. He acknowledged that the most recent test on a grab sample had shown a high chromium content and attributed this result to an overload of the treatment process in the paint room (Tr. 157-58).

17. Mr. Clinton L. Weber is a professional consulting engineer, who has been employed by the engineering firm of Kirkham, Michael and Associates, Omaha, Nebraska, for 25 years (Tr. 63; Written Testimony, City Exh A). Mr. Weber has over 30 years

^{11/} EPA conducted an inspection of the Alumax facility in July of 1991, but apparently had not reported its findings at the time of the hearing.

experience in the planning and design of water and wastewater treatment plants. He has participated in over 100 investigations and prepared reports for both municipal and industrial clients throughout the midwest and has participated in the design and development of numerous multi-million dollar projects. Mr. Weber's firm was employed by the City to conduct a wastewater treatment review involving capacity flows, compliance with pretreatment requirements, etc. He opined that Yankton's POTW was professionally run and, other than the WET tests, produced a high-quality effluent (Tr. 65). Regarding the WET test failures, he reviewed test reports and laboratory correspondence and testified these indicated ammonia was the primary toxicant. His opinion that toxicity was not due to the presence of metals was reinforced by the fact the tests passed when conducted at a lower pH resulting from an atmosphere enriched by carbon dioxide (Tr. 65, 66; Exh A). He also relied upon analyses of sludge samples which reportedly showed a metals content considerably less than specified for agricultural lands in EPA's proposed sludge regulations.^{12/}

18. It being beyond his area of expertise, Mr. Weber had no explanation for test results (finding 5) indicating *Ceriodaphnia* failed, while the minnows passed (Tr. 71). He

^{12/} Tr. 68, 69; City Exhibit A at 1. It is understood that sludge regulations (40 CFR Part 503) are in the process of being finalized and will be published in the near future.

attributed ammonia in the City's effluent to the packing house, other "food-related" industries and domestic sources. He was not positive whether a pretreatment program would address any ammonia problem the City might have (Tr. 67). He understood that the packing house was not a categorical industry^{13/} and testified that, if ammonia were considered a problem, he would address it in other ways than by implementation of a pretreatment program (Id.). He indicated that he did not know how the packing house could practically reduce its ammonia load without providing a very sophisticated treatment plant (Tr. 74). He explained that ammonia could normally only be treated by a process called "maturation," which normally required secondary treatment.

19. Mr. Weber testified that the actual capacity of the Yankton POTW, was limited by the primary clarifiers and was only 3.18 mgd (Tr. 75, 76, 85, 86; City Exh A at 2). He pointed out that the aeration basins were probably only designed for two and a half mgd. He opined that the 4.94 mgd capacity figure

^{13/} The reference apparently is to Cimpl's, Inc., otherwise referred to as "Cimpl Meats," which is described as a "beef slaughterhouse" on the list of Industries In Yankton, SD (EPA Exh B). This firm is also indicated to be engaged in "sausage manufacturing" and "beef slaughter" and is referred to as a "beef processor" (EPA Exh B1). Inasmuch as Standards for the Meat Products Point Source Category have been promulgated (40 CFR Part 432), which include Simple and Complex Slaughterhouses, Low-processing and High-processing Subcategories, a Small Processor and Sausage and Luncheon Meats Processor Subcategories, it is not clear why Cimpl's is not covered by one or more of these designations. The firm, however, is not designated as a categorical user on Exhibit B1 and the Agency has made no contention that it should have been so designated.

used by EPA, and acknowledged by the City in some pleadings, was an original designer's number which was probably dependent upon the installation of extra components (Tr. 85). He stated that the present flow was only 1.7 mgd, which included an estimated 300,000 gpd of infiltration. Moreover, he estimated that flows in the year 2010 would be only 2.55 mgd (Tr. 67, 68). Under cross-examination, Mr. Weber acknowledged that the trickling filters were capable of handling five mgd or more and that the piping or hydraulics were capable of handling five mgd (Tr. 76). He insisted, however, that it would be a very costly project to bring all of the components up to the five mgd level.

20. Mr. Weber opined that the City was doing an excellent job of operating and maintaining its existing plant and that instituting a pretreatment program would not be advantageous to the City (Tr. 68). He testified that implementation of a pretreatment program would not affect any existing problem at the plant (Tr. 84). He estimated that it would cost between \$50,000 and \$60,000, including the cost of sampling and testing equipment, to implement a pretreatment program.^{14/} Costs of employing a trained individual to continue the program were estimated at \$40,000 a year (Exh A at 3). These

^{14/} Tr. 80, 81. Among the requirements of a pretreatment program is that the POTW have the capability of determining independent of data supplied by industrial users, that the discharges of such users comply with pretreatment standards (40 CFR § 403.8(f)(1)(v)).

costs would necessarily be borne by the citizens of Yankton and its industries. Mr. Weber testified that most of this money would be spent on industries that have little or no impact on the wastewater operation and upon the receiving stream, the Missouri River (Id. at 2).

21. Mr. Weber acknowledged that it would be beneficial to the City to have a clear understanding of the source and content of discharges into the system (Tr. 72). He maintained, however, that the City has adequate information to perform that function. He pointed out that the City charged these industries for wastes discharged to the system and affirmed his opinion that until it was demonstrated there was a toxicity problem other than ammonia, money spent on a [pretreatment program] would be questionable. He contended that the size of the receiving stream should be considered and that in view of the size of the Missouri River and the lack of any data pointing to heavy metals, a full-fledged pretreatment program was unnecessary. Mr. Weber acknowledged that a pretreatment program would address more than metals in the sludge (Tr. 77). He referred to a list of over 100 chemicals, which would include organic chemicals, greases, oils, solvents and similar constituents. He asserted, however, that the WET tests would help the City to identify any problems (Tr. 78). Additional tests could then be conducted and the source determined and eliminated, if it were a problem.

22. Mr. Rodger Harts, identified finding 5, testified that there were no tests which would support the conclusion metals were the cause of toxicity [in the Yankton effluent] (Tr. 128). He attributed all of the failed tests to ammonia (Tr. 134, 136). He confirmed that there have been no violations [WET failures] since CO₂ has been used in the tests (Tr. 131). He also confirmed that ENSR, the current lab, had authority to do characterization tests, if they found any [toxicant] other than ammonia, but had not found it necessary to do, because no toxicant other than ammonia had been found (Tr. 136-37, 142). Under cross-examination, Mr. Harts testified that the City was already monitoring six industries [which discharged into the sewer system] (Tr. 139). He claimed, however, that it would take a survey to determine how many industries would be under the pretreatment program and stated that the City had not performed such a survey (Tr. 139-40). He acknowledged that the City was contesting the requirement for a pretreatment program because of cost, asserting that because of the current performance of the wastewater treatment plant and the City's limited budget, money spent on a pretreatment program could be [better] used elsewhere. He denied that the Alumax oil and grease violations could properly be called an "upset" at the plant or caused a problem at the POTW, denied that there had been any bypasses of the POTW or overflows of the sewers and denied knowledge of any spills of industrial solvents or toxic materials into the POTW (Tr. 141-42).

C O N C L U S I O N S

1. In accordance with 40 CFR § 403.8(a), the permitting authority may require implementation of a pretreatment program by POTW's having a design flow of five mgd or less, only if the deciding official makes findings that a pretreatment program is warranted in order to prevent "interference" with the POTW or "pass through."
2. The design flow of the City of Yankton's POTW is 3.18 mgd rather than 4.94 mgd as assumed by EPA.
3. The Permittee's problems with toxicity, if any, are attributable to ammonia rather than metals and a pretreatment program at the Yankton POTW would be primarily concerned with pollutants other than ammonia.
4. In accordance with 40 CFR § 124.85(a)(2), EPA has the burden of supporting any challenged permit conditions. A pretreatment program has not been shown to be warranted in order to prevent "interference" with the POTW or "pass through" and the requirement will be deleted from the permit.

D I S C U S S I O N

Emphasizing that the purpose of pretreatment is prevention, EPA contends that a pretreatment program was properly imposed on the City of Yankton pursuant to 40 CFR § 403.8(a),^{15/} because of

^{15/} The regulation, 40 CFR § 403.8(a), provides:

(continued...)

the nature and volume of the industrial influent to the POTW and "other circumstances," i.e., the City's history of NPDES permit violations, repeated WET test failures, recurrent violations by, and control problems with, at least one of the City's industrial users (Brief at 2). Ignoring evidence that the design flow of the Yankton POTW is 3.18 mgd, EPA asserts that any one of these factors is sufficient to require a pretreatment program on a POTW the design flow of which is only six one hundredths of a million gallons below the five mgd threshold (Brief at 4).

Regarding the nature and volume of the industrial influent, EPA points out that there are at least 20 industries in the City subject to either categorical (industry specific nationwide) pretreatment standards (40 CFR § 403.6 et seq.) or noncategorical (general) pretreatment standards (40 CFR § 403.5). While it appears that all of the categorical users and the great majority of

^{15/}(...continued)

- (a) POTWs required to develop a pretreatment program. Any POTW (or combination of POTWs operated by the same authority) with a total design flow greater than 5 million gallons per day (mgd) and receiving from Industrial Users pollutants which Pass Through or Interfere with the operation of the POTW or are otherwise subject to Pretreatment Standards will be required to establish a POTW Pretreatment Program unless the NPDES State exercises its option to assume local responsibilities as provided for in § 403.10(e). The Regional Administrator or Director may require that a POTW with a design flow of 5 mgd or less develop a POTW Pretreatment Program if he or she finds that the nature or volume of the industrial influent, treatment process upsets, violations of POTW effluent limitations, contamination of municipal sludge, or other circumstances warrant in order to prevent Interference with the POTW or Pass Through.

industrial users of the Yankton POTW are sources of metals, the only evidence of possible "interference"^{16/} or "pass through"^{17/} is the WET test failures. Because there have been no reported WET test failures when CO₂, which stabilizes pH levels (finding 12), has been used in the test (findings 8 and 22), the weight of the

^{16/} Section 403.8(a), supra note 15. "Interference" is defined, § 403.3(i), as follows:

- (i) The term *interference* means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:
 - (1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
 - (2) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

^{17/} "Pass Through" is defined, § 403.3(n), as follows:

- (n) The term *Pass Through* means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

evidence supports the conclusion WET test failures are attributable to ammonia concentrations and not metals (Weber, finding 17). See also lab reports, findings 6 and 7, which indicate that ammonia concentrations were sufficient to account for all of the observed toxicity and that there is no evidence of toxicity other than ammonia.

The City's expert, Mr. Weber, appeared to be doubtful as to whether a pretreatment program would affect ammonia discharges opining that he was not positive whether a pretreatment program would address any ammonia problem the City might have (finding 17). In other testimony, however, he stated that a pretreatment program would not address any existing problem at the plant [POTW] (finding 20). He was emphatic that most of the money spent on pretreatment would be on industries having little or no impact on the wastewater operation or the Missouri River (Id.). Mr. McCormick did not claim that a pretreatment program at the Yankton POTW would necessarily address ammonia, stating only that EPA viewed ammonia as a toxicant, which would have to be treated by the POTW or pretreated by industry, if industry were a significant source of ammonia (finding 13). It should be emphasized that the pretreatment program is concerned with treatment by industry, not the POTW,^{18/} and that there is no evidence that industry, other than the packing

^{18/} The statute (§ 307(b)) provides for a revision of pretreatment standards where the POTW removes a toxic pollutant in whole or in part and the resulting discharge, if by a direct discharger, would not violate any effluent limitation or standard. This provision has been implemented by regulation, 40 CFR § 403.7, entitled "Removal credits."

house, is a significant source of ammonia. Moreover, EPA has not contended that a pretreatment program for the City of Yankton would alleviate ammonia concentrations.

Although Mr. Fischer opined in written testimony that the volume of industrial influent to the POTW was alone sufficient to warrant implementation of a pretreatment program (finding 10), there is no evidence of this volume in absolute terms or in relation to the flows or capacity of the Yankton POTW.

Next in the series of findings listed in 40 CFR § 403.8(a), any one of which would be sufficient to support the requirement that Yankton implement a pretreatment program, provided it was necessary or warranted to prevent interference or pass through, is "treatment process upsets." While the Agency hasn't contended "such upsets" justify a pretreatment program, it does rely on the "other circumstances" language of the regulation. An "upset" is defined as an exceptional incident in which there is unintentional and temporary noncompliance with categorical pretreatment standards, because of factors beyond the reasonable control of an

industrial user.^{19/} There is no evidence of "treatment process upsets" (Harts, finding 22).

This brings us to "violations of POTW effluent limitations" and it should be emphasized that reported WET test failures were not violations of the permit, because the requirement that there be no acute toxicity in the City's effluent as demonstrated by the WET test was not effective until October 1, 1992 (finding 4). The only other evidence of POTW violations occurred prior to the plant being upgraded in 1979 (finding 3). For all that appears, the expansion of the capacity of the POTW in 1979 accomplished its intended purpose and there is no evidence of further permit violations.

There is no evidence of "contamination of [the City's] municipal sludge." Indeed, the evidence is that the metals content of Yankton's sludge is considerably less than concentrations for agricultural lands in EPA's proposed sludge regulations (finding 17).

EPA also relies on the "other circumstances" language of section 403.8(a), pointing to the WET test failures, violations of oil and grease limits by Alumax, evidence of current sloppy

^{19/} See 40 CFR § 403.16(a), providing:

- (a) *Definition.* For the purposes of this section, *Upset* means an exceptional incident in which there is unintentional and temporary noncompliance with categorical Pretreatment Standards because of factors beyond the reasonable control of the Industrial User. An Upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

performance by Alumax and reciting the government's desire to protect the Missouri River, Yankton POTW workers, municipal sludge, the POTW itself and the government's six million dollar investment (Brief at 4). WET test failures have been discussed above and determined to be due to ammonia rather than metals. The Alumax violations pertained to oil and grease rather than metals and have been remedied.^{20/} There is no evidence of the duration of the pH and chromium exceedances alluded to by Mr. Mathrole (finding 16). Moreover, Alumax's discharges for these pollutants and others are controlled by the categorical pretreatment standards applicable to aluminum forming (40 CFR Part 467) as well as City of Yankton ordinances and it is not self-evident that making the City the enforcement authority for industrial dischargers, as the pretreatment program would do, would eliminate such exceedances, which for all that appears were temporary and not significant.^{21/}

The balance of EPA's arguments relying on the "other circumstances" language of section 403.8(a) relate to the purpose

^{20/} While EPA complains that the City failed to notify the Agency of these violations, 40 CFR § 403.12 requires industrial users such as Alumax to submit reports as to operations, pollutant measurements, sampling results, etc., to the control authority, which in this case is EPA.

^{21/} "Significant noncompliance" is defined, 40 CFR § 403.8(f)(2)(vii), as including, *inter alia*, the following:

(A) Chronic violations of wastewater discharge limits, defined here as those in which sixty-six percent or more of all of the measurements taken during a six-month period exceed (by any magnitude) the daily maximum limit or the average limit for the same pollutant parameter;

of the pretreatment program and under the rule of *ejusdem generis*, that language is limited to events or circumstances of the same general kind or class as those specifically mentioned, which are warranted in order to prevent interference or pass through.

For its part, Yankton argues that the obvious and clear intent of section 403.8(a) was to exempt smaller cities, such as Yankton, from the costly process of implementing a pretreatment program, unless it could be clearly established on specific findings that implementation was necessary to prevent interference with the POTW or pass through (Brief at 8). This argument is substantially supported by the preamble to Part 403 "General Pretreatment Regulations For Existing and New Sources Of Pollution"²² and by

²² The preamble, 43 Fed. Reg. 27736-46 (June 26, 1978), provides in pertinent part at 27740-41:

A number of comments questioned whether small communities had the resources, technical capabilities, and where a large industry uses the system, the political will, to effectively enforce national pretreatment standards through a POTW pretreatment program. Several commenters questioned whether requiring such small communities to develop pretreatment programs could unnecessarily delay the NPDES permit and construction grant programs and yet still require State or Federal enforcement of pretreatment standards. After consideration of the testimony, a review of the performance of small POTW's in complying with present permit requirements, the significance of industries in different-sized POTW's, and the expected costs of developing and administering a pretreatment program, the National Pretreatment Strategy was amended to exempt POTW's with a design flow of 5.0 million gallons per day (mgd) or less from the uniform requirement to have a POTW pretreatment program unless the Regional Administrator or the Director of an NPDES State determines that a program is necessary due to the significance of the character or volume of industrial wastes introduced into the POTW. This exemption and exceptions to it are described in
(continued...)

the "National Pretreatment Strategy,"^{23/} which make it clear that the cost of developing and administering a pretreatment program and a lack of technical expertise were the principal reasons for exempting POTW's having design flows of five mgd or less from the program. The preamble (supra note 22) reflects that a determination a pretreatment program is necessary due to the significance of the character or volume of the industrial influent introduced into the POTW is the principal basis for overriding the exemption.

The crux of the City's argument is that Yankton's effluent is of high quality,^{24/} that current problems with the effluent, if any, are due to ammonia, that a pretreatment program will not affect ammonia concentrations, that the Agency did not make findings, and the evidence does not support, the conclusion that a

^{22/} (...continued)

Appendix A (National Pretreatment Strategy, subsection D.1) of the regulation.

^{23/} The National Pretreatment Strategy, 40 CFR Part 403, Appendix A (1978) provides at section D.1 that smaller POTW's which would be unlikely to have sufficient funding or technical expertise to implement an effective pretreatment program will not automatically be required to do so. These smaller POTW's are defined as those having design flows of five mgd or less. The section contains the language of the regulation, § 403.8(a), as to the circumstances under which such "smaller" POTW's may be required to develop a pretreatment program and does not further explain the terms used or the rationale therefor.

^{24/} Although EPA disputes this assertion, the fact that Yankton's effluent is of high quality is supported substantially by Mr. Weber (findings 17 and 20), by the Statement of Basis by the South Dakota DWR (AR Document 60) and, indeed, by the Agency's own Statement of Basis (AR Document 135).

pretreatment program is necessary in order to prevent interference with the POTW or pass through (Brief at 5, 6, 8; Reply Brief at 5-7). Yankton points out that the burden of proof is on EPA, argues that the Agency has failed to carry its burden and asserts that the City's financial capability must be preserved to address programs and structures having a demonstrable and causal connection to maintaining its effluent within prescribed bounds (Reply Brief at 7, 8). Yankton says that a permit without a pretreatment program will comply with all applicable requirements of the CWA and urges that the requirement be deleted from the permit.

Use, in section 403.8(a), of the terms "may require" and "warrant" clearly contemplate that the permitting authority has discretion to require a POTW having a design flow of five mgd or less to implement a pretreatment program. That discretion is not unfettered, however, and must be directly related to the prevention of "interference" with the POTW or "pass through." Here, the evidence establishes that there have been no violations of effluent limits by the Yankton POTW since the plant was upgraded in 1979.^{25/}

^{25/} This is not to find or imply, as the City argues, that specific findings of violation are necessary in order to require implementation of a pretreatment program by a POTW the size of Yankton's. The City's argument in this respect lacks conviction, for it refers (Brief at 9) to findings of "(various violations or conditions)" which would warrant implementation of such a program. In any event, the argument is clearly erroneous, because, as indicated (ante at 27), the significance of the character or volume of influent to the POTW is a principal basis for overriding the exemption and "violation of effluent limitations" is one of a series of alternative findings, any one of which is sufficient to override the exemption.

To the extent WET test failures, which were not permit violations because freedom from toxicity as evidenced by the test was not effective until October 1, 1992, indicate a potential problem with toxicity, the record shows that this problem is attributable to ammonia which would not necessarily be addressed by a pretreatment program.^{26/} The primary emphasis of the pretreatment program is on compliance with categorical standards and there is no evidence that any categorical user of the Yankton POTW is a significant source of ammonia. While it is recognized that 40 CFR § 403.5(c) requires the development of local limits by POTW's, for POTW's developing pretreatment programs, the requirement appears restricted to enforcing the prohibitions in section 403.5(a) and (b)^{27/} and, for all other POTW's, local limits are restricted to specific pollutants resulting in

^{26/} Yankton's comments on the draft permit state that the POTW, the design of which was approved by EPA, generates ammonia as part of the treatment process (AR Document 71). Although no evidence to support this statement was introduced by the City, EPA's response states in part "[i]f identified toxicity is caused exclusively by ammonia, your attention is called to Part IV.P.3 and 4 of your proposed permit which allows for numerical limits on ammonia at a level that satisfies the water quality standards and a change in WET testing protocol if needed" (AR Document 130 at 2). This seemingly is an acknowledgment that ammonia represents a unique problem which would not necessarily be addressed by implementation of a pretreatment program by the Yankton POTW.

^{27/} Section 403.5(a) prohibits the introduction into a POTW of pollutants which would cause interference or pass through and § 403.5(b) prohibits the introduction into a POTW of, *inter alia*, explosives and other hazardous materials.

"interference" or "pass through" where the violation is likely to recur.^{28/}

In view of the foregoing, the record supports the conclusion that, if the Yankton POTW has a problem complying with effluent limits, it is attributable to ammonia which a pretreatment program has not been shown to address and in the words of Mr. Weber most of moneys expended on a pretreatment program would be on industries having little or no impact on the POTW (finding 20). In accordance with 40 CFR § 124.85(a)(2), the Agency has the burden of supporting contested permit provisions^{29/} and, although the pretreatment program is preventive in nature and is in accordance with Congressional policy as evidenced by section 307(b) of the Act, if the exemption in 403.8(a) for POTW's the size of Yankton's is to have any meaning, it must be related to actual, and not merely theoretical, potential for "interference" with the POTW or "pass through." It is worthy of note, that one of the Agency's primary reasons for imposing the pretreatment program on the City was the mistaken belief that the design flow was at or very close to the five mgd threshold (finding 10). It is concluded that the Agency

^{28/} Although the State, or the City if authorized, could develop standards and prohibitions not less stringent than those required by or developed under the CWA, there is no evidence or allegation that they have or intend to do so. See CWA § 510 and 40 CFR § 403.4.

^{29/} Section 124.85(a)(2) provides:

- (2) The Agency has the burden of going forward to present an affirmative case in support of any challenged condition of a final permit.

has failed to sustain its burden of showing that a pretreatment program is warranted at the Yankton POTW.

The parties appear to regard this proceeding as in the nature of judicial review of the terms of the permit. For its part, EPA cites cases, e.g., Ouivera Mining Company v. The Nuclear Regulatory Commission, 866 F.2d 1246 (10th Cir. 1989) and State of Oklahoma v. EPA, 908 F.2d 595 (10th Cir. 1990), reversed, sub. nom Arkansas v. Oklahoma, 503 U.S. ____, 117 L.Ed. 2d 239 (1992), for the proposition that upon judicial review, an agency's interpretation of its own regulations is entitled to substantial deference and argues that the same reasoning should be employed in the administrative context (Brief at 6,7). Yanton alleges that the decision-making process herein was "arbitrary and capricious" because, *inter alia*, Mr. Fischer recommended that the City be required to implement a pretreatment program without making findings required by section 403.8(a) (Brief at 9). Perhaps as a result of EPA's initial brief, Yankton recites the standards for judicial review of final agency decisions under the Administrative Procedure Act (5 U.S.C. § 706) and repeats its contention the Agency acted "arbitrarily and capriciously" in seeking, without proper foundation, to compel the City to implement a pretreatment program (Reply Brief at 3).

The reality is that this proceeding is part of the process leading to a final Agency decision³⁰ and, unlike a reviewing

³⁰ The applicable rules of procedure provide at 40 CFR § 124.89 that the initial decision of the presiding officer (ALJ) (continued...)

court, I, as the ALJ, am empowered to substitute my judgment for that of the permit issuer where the evidence so warrants. Louisville Gas & Electric Company, Trimble County Power Plant, NPDES Appeal No. 81-3 (Final Decision, September 24, 1981). Accordingly, concepts such as whether the Agency acted "arbitrarily and capriciously" and whether deference is due the Agency's interpretation of its own regulations, appropriate on judicial review of a final agency decision, are simply inapplicable. For the reasons recited above, it is my conclusion that the record does not support a finding within the meaning of 40 CFR § 403.8(a) that implementation of a pretreatment program by the City of Yankton is warranted to prevent "interference" with the POTW or "pass through." The requirement will be deleted from the permit.^{21/}

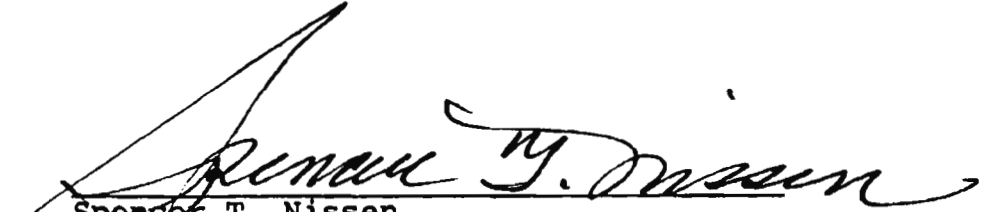
^{20/}(...continued)
will become the final [Agency] decision 30 days after its service unless a petition for review by the Environmental Appeals Board (EAB) is filed pursuant to § 124.91 or the EAB elects, *sua sponte*, to review the same.

^{21/} If conditions change, the Agency may, of course, seek to modify the permit to require Yankton to implement a pretreatment program. See 40 CFR § 403.8(e)(4).

ORDER

The requirement that the City of Yankton implement a pretreatment program is deleted from the permit.

Dated this 21st day of January 1993.


Spencer T. Nissen
Administrative Law Judge