4/11/90

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE ADMINISTRATOR

In the Matter of	)	
	)	
Proceedings To Determine Whether To Withdraw Approval of North Carolina's Hazardous Waste Management Program	)	Docket No. RCRA-SHWPAW-IV-01-87

DECISION

The question presented in this proceeding is whether North Carolina's authority to administer its hazardous waste program under the Resource Recovery and Conservation Act (RCRA) should be withdrawn. The asserted basis for withdrawal is that legislation adopted by North Carolina rendered its program inconsistent with the Federal program and with other State programs. Agreeing with the Administrative Law Judge that no such inconsistency has been demonstrated, I dismiss this proceeding. 1/

I adopt the recommended decision prepared by the Administrative Law Judge, which appears at Appendix A, except insofar as it reaches certain conclusions which I consider to be dicta. For the convenience of the interested public I will very briefly summarize the recommended decision and my reasons for adopting it. My response to the exceptions filed by the petitioners and the respondents is attached as Appendix C.

In 1985, GSX Chemical Services, Inc. (GSX), a multi-State chemical waste management firm, submitted a RCRA application to the State of North Carolina to operate an aqueous waste treatment facility near Laurinburg, in Scotland County. The proposed facility was designed to treat "just about anything that could be treated in a tank." A marketing study forecast that half the waste would come from States other than North Carolina. In April 1987, North Carolina issued a draft permit to GSX which authorized a daily discharge of 500,000 gallons of treated wastewater to a publicly-owned treatment works, which in turn discharges to the Lumber River. The drinking water supply for the City of Lumberton, North Carolina is thirty miles downstream of the treatment works.

1/ After the Regional Administrator of Region IV, in which North Carolina lies, recused himself, the Administrator redelegated his authority as final agency decision-maker in this matter to me. A copy of the delegation is attached as Appendix B.

In June 1987, the North Carolina legislature enacted Senate Bill 114, which provides that new commercial hazardous waste treatment facilities are not to be issued permits to discharge hazardous waste or toxic substances into surface water located upstream of a public drinking water intake, unless a dilution factor of 1,000 exists at the point of discharge under certain low flow conditions.

The sponsors of Senate Bill 114 represented Scotland County in the legislature. Whatever their motives or the motives of the other legislators who voted for the bill, one of the consequences of the legislation was elimination of the Laurinburg site as a possible location for a facility of the size and complexity contemplated in the application submitted by GSX. It would not be economically feasible to operate such a facility if the volume of discharge were limited to 72,000 gallons per day, which would be the maximum allowable at the Laurinburg site under Senate Bill 114.

The grounds for withdrawal of RCRA program authorization are set forth in section 271.4 of Title 40 of the Code of Federal Regulations. Subdivision (a) of section 271.4 provides that a State program shall be deemed inconsistent if it unreasonably restricts, impedes or operates as a ban on the free movement of hazardous waste across the State's borders for treatment, storage or disposal. The enactment of Senate Bill 114 did not have that effect.

Senate Bill 114 did render a large facility of the type proposed by GSX economically infeasible at the Laurinburg site. However, such a facility could be constructed at other sites within the State in compliance with the Act. Indeed, of the 36,986 river miles in the State, before Senate Bill 114 was enacted 485 miles were available for siting a facility with a 500,000 gallons per day capacity, while after its enactment 333 miles remained available.

Moreover, a smaller facility of a type routinely operated across the country could be constructed at the GSX Laurinburg site in compliance with the Act. Recall that under Senate Bill 114 the maximum allowable discharge at the Laurinburg site would be 72,000 gallons per day. The average flow rate of commercial aqueous hazardous waste treatment facilities is significantly less -- 45,000 gallons per day. The Hazardous Waste Treatment Council is a petitioner in this proceeding, yet more than half of its members which discharge to publicly-owned treatment works discharge less than 75,000 gallons per day.

Subdivision (b) of section 271.4 provides that a State program may be deemed inconsistent if it has no basis in human health or environmental protection and acts as a prohibition on the treatment, storage or disposal of hazardous waste in the State. Note that under subdivision (b), unlike subdivision (a),

withdrawal is discretionary. Note, too, that subdivision (b) is in the conjunctive. That is, the question of exercising discretion to withdraw program approval does not arise unless satisfaction of both of the conditions stated in subdivision (b) has been shown.

Here the second condition is not satisfied. To repeat, under Senate Bill 114 a large facility of the type proposed by GSX for the Laurinburg site could be built elsewhere in the State, and a smaller facility could be built at Laurinburg. Therefore, the law cannot be said to act as a prohibition on the treatment, storage or disposal of hazardous waste in North Carolina.

Because both of the conditions stated in subdivision (b) would have to be satisfied to support a withdrawal under that provision, and the second condition is not satisfied, it is unnecessary to reach the question whether Senate Bill 114 has a basis in the protection of human health and the environment, just as it is unnecessary to reach the question whether Senate Bill 114 should be considered a more stringent siting requirement under the "Bumpers Amendment."[2/] The discussion of these two questions in the recommended decision prepared by the Administrative Law Judge, therefore, should be considered as dicta.

The proceeding is dismissed. This decision constitutes final agency action in this matter within the meaning of 5 U.S.C. 704.

Daniel W. McGovern

Dated: 5·31·90

Daniel W. McGovern
Regional Administrator
Region 9
U.S. Environmental Protection Agency

2/ The "Bumpers Amendment" to section 3009 of RCRA provides in pertinent part: "Nothing in this chapter shall be construed to prohibit any State or political subdivision thereof from imposing any requirements, including those for site selection, which are more stringent than those imposed by such regulations."

CERTIFICATE OF SERVICE

I hereby certify that the original of the Decision dated May 31, 1990, in re: Proceedings to Determine Whether to Withdraw Approval of North Carolina's Hazardous Waste Management Program, was mailed to the Regional Hearing Clerk, Region IV, and a copy was mailed to each party in the proceeding as follows:

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Larry Duncan

Dated: June 1, 1990

Larry Duncan
Secretary

APPENDIX A

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE ADMINISTRATOR

In the Matter of	)	
	)	
Proceedings To Determine	)	Docket No. RCRA-SHWPAW-IV-01-87
Whether To Withdraw Approval	)	
of North Carolina's	)	
Hazardous Waste Management	)	
Program	)	

Resource Conservation and Recovery Act - State Program Approvals - Withdrawal Proceedings - Consistency

Where a proceeding to withdraw North Carolina's hazardous waste program approval under § 3006 of the Act was instituted based on the contention that a statute enacted by the General Assembly, the ostensible purpose of which was to protect public drinking water supplies, had the effect of rendering the State's program inconsistent with the federal program and programs applicable in other states within the meaning of 40 CFR § 271.4 and the record did not support a finding either that the statute unreasonably restricted the free movement of hazardous waste across the State's borders for treatment, storage or disposal or operated as a prohibition on the treatment, storage or disposal of hazardous waste by facilities subject to the statute, nor did the record establish that the statute had no basis in human health or environmental protection, it was concluded that the State's program had not been shown to be inconsistent with the federal program or with programs in other states and a recommendation was made that the proceeding be dismissed.

Resource Conservation and Recovery Act - State Program Approvals - Withdrawal Proceedings - Action By The Legislature Striking Down State Authorities Or Failing To Issue Permits

Where statute enacted by North Carolina General Assembly had the effect of blocking the issuance of a permit to a commercial hazardous waste treatment facility (HWTF) and statute had a reasonable or plausible basis in protection of public health and the environment and could, in any event, be regarded as a statute imposing an additional requirement for the siting of a HWTF, a basis for withdrawal of the State's program authorization for action by the legislature in striking down the State's authorities or for failing to issue permits within the meaning of 40 CFR § 271.22 was not established.

C O N T E N T S

In June 1987, the North Carolina legislature enacted Senate Bill 114, which provides that new commercial hazardous waste treatment facilities are not to be issued permits to discharge hazardous waste or toxic substances into surface water located upstream of a public drinking water intake, unless a dilution factor of 1,000 exists at the point of discharge under certain low flow conditions.

The sponsors of Senate Bill 114 represented Scotland County in the legislature. Whatever their motives or the motives of the other legislators who voted for the bill, one of the consequences of the legislation was elimination of the Laurinburg site as a possible location for a facility of the size and complexity contemplated in the application submitted by GSX. It would not be economically feasible to operate such a facility if the volume of discharge were limited to 72,000 gallons per day, which would be the maximum allowable at the Laurinburg site under Senate Bill 114.

The grounds for withdrawal of RCRA program authorization are set forth in section 271.4 of Title 40 of the Code of Federal Regulations. Subdivision (a) of section 271.4 provides that a State program shall be deemed inconsistent if it unreasonably restricts, impedes or operates as a ban on the free movement of hazardous waste across the State's borders for treatment, storage or disposal. The enactment of Senate Bill 114 did not have that effect.

Senate Bill 114 did render a large facility of the type proposed by GSX economically infeasible at the Laurinburg site. However, such a facility could be constructed at other sites within the State in compliance with the Act. Indeed, of the 36,986 river miles in the State, before Senate Bill 114 was enacted 485 miles were available for siting a facility with a 500,000 gallons per day capacity, while after its enactment 333 miles remained available.

Moreover, a smaller facility of a type routinely operated across the country could be constructed at the GSX Laurinburg site in compliance with the Act. Recall that under Senate Bill 114 the maximum allowable discharge at the Laurinburg site would be 72,000 gallons per day. The average flow rate of commercial aqueous hazardous waste treatment facilities is significantly less -- 45,000 gallons per day. The Hazardous Waste Treatment Council is a petitioner in this proceeding, yet more than half of its members which discharge to publicly-owned treatment works discharge less than 75,000 gallons per day.

Subdivision (b) of section 271.4 provides that a State program may be deemed inconsistent if it has no basis in human health or environmental protection and acts as a prohibition on the treatment, storage or disposal of hazardous waste in the State. Note that under subdivision (b), unlike subdivision (a),

withdrawal is discretionary. Note, too, that subdivision (b) is in the conjunctive. That is, the question of exercising discretion to withdraw program approval does not arise unless satisfaction of both of the conditions stated in subdivision (b) has been shown.

Here the second condition is not satisfied. To repeat, under Senate Bill 114 a large facility of the type proposed by GSX for the Laurinburg site could be built elsewhere in the State, and a smaller facility could be built at Laurinburg. Therefore, the law cannot be said to act as a prohibition on the treatment, storage or disposal of hazardous waste in North Carolina.

Because both of the conditions stated in subdivision (b) would have to be satisfied to support a withdrawal under that provision, and the second condition is not satisfied, it is unnecessary to reach the question whether Senate Bill 114 has a basis in the protection of human health and the environment, just as it is unnecessary to reach the question whether Senate Bill 114 should be considered a more stringent siting requirement under the "Bumpers Amendment."[2/] The discussion of these two questions in the recommended decision prepared by the Administrative Law Judge, therefore, should be considered as dicta.

The proceeding is dismissed. This decision constitutes final agency action in this matter within the meaning of 5 U.S.C. 704.

Daniel W. McGovern

Dated: 5·31·90

Daniel W. McGovern
Regional Administrator
Region 9
U.S. Environmental Protection Agency

2/ The "Bumpers Amendment" to section 3009 of RCRA provides in pertinent part: "Nothing in this chapter shall be construed to prohibit any State or political subdivision thereof from imposing any requirements, including those for site selection, which are more stringent than those imposed by such regulations."

APPENDIX B

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 1 1989 8 JUN 1989

THE ADMINISTRATOR

MEMORANDUM

SUBJECT: Redelegation of final decisionmaking and scheduling authority in RCRA-SHWPAW-IV-01-07

FROM: William K. Reilly
Administrator

TO: Daniel J. McGovern
Regional Administrator
Region 9

This is to delegate to you, pursuant to RCRA Section 3006(e), 42 U.S.C. § 6926(e), and 40 C.F.R. 271.23(b)(3)(iv) and 271.23(b)(8), final decisionmaking and scheduling authorities, without the need for concurrence of the Assistant Administrator for Solid Waste and Emergency Response, in RCRA-SHWPAW-IV-01-07. All information directed to the Administrator under 40 C.F.R. 271.23(b)(7) should be directed to you. The prior delegation, appearing in Delegations Manual chapter 8-7 and dated March 6, 1986, continues to be in force except in regard to this proceeding.

cc: Honorable Spencer T. Nissan
Greer Tidwell
Jonathan Z. Cannon
Docket for RCRA-SHWPAW-IV-01-07
Counsel of Record, RCRA-SHWPAW-IV-01-07

CERTIFICATE OF SERVICE

I hereby certify that the original of the Recommended Decision, dated April 11, 1990, in re: Proceedings to Determine Whether to Withdraw Approval of North Carolina's Hazardous Waste Management Program, was mailed to the Regional Hearing Clerk, Reg. IV, and a copy was mailed to each party in the proceeding as follows:

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Washington, D.C. 20005-4798

April 11, 1990

Helen F. Handon
Secretary

ATTACHMENT B

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE ADMINISTRATOR

In the Matter of	)	
	)	
Proceedings to Determine	)	
Whether to Withdraw Approval	)	Docket No. RCRA-SHWPAW-IV-01-87
of North Carolina's	)	
Hazardous Waste Management	)	
Program	)	

ORDER ESTABLISHING ISSUES

1. Whether North Carolina GS 130A-295.01 (the Act) unreasonably restricts the free movement of hazardous waste across the State's borders for treatment, storage or disposal?

2. Whether there is any basis in protection of human health or the environment for the Act's distinction between commercial and noncommercial facilities (only the former being subject to the Act)?

3. Whether the Act operates as a prohibition on the treatment, storage or disposal of hazardous waste in the State by facilities subject to the Act?

4. Whether there is any basis in human health or the environment for the dilution provision which, inter alia, disregards treatment and dilution that may occur in a POTW, disregards treatment levels achieved by a facility subject to the Act and applies irrespective of the quality of the discharge?

5. Whether the Act imposes more stringent requirements which have any basis in the protection of human health or the environment as authorized by § 3009 (42 U.S.C. § 6929)?

6. Whether compliance with the Act will make operation of some or all new commercial treatment facilities in the State economically unfeasible?

APPENDIX C

After issuance of the Administrative Law Judge's recommended decision, exceptions to the decision were filed by the petitioners[1/] and by the respondents[2/].

The petitioners take exception to Summary Findings 1 through 5 and to all four conclusions. Their exceptions are based on two broad arguments:

(A) that the Administrative Law Judge's failure to examine and determine the actual purpose of Senate Bill 114 opens the door to sham legislation, and

(B) that the Administrative Law Judge's interpretation and application of RCRA's consistency requirement permits states to justify protectionist legislation.

In presenting their first argument, the petitioners argue that the Administrative Law Judge should have taken into account other instances in which the North Carolina legislature is alleged to have blocked the siting of hazardous waste management facilities and statements by individual legislators "concerning their desire to stop GSX and prevent the importation of hazardous waste into North Carolina."

After reviewing the Findings of Fact made by the Administrative Law Judge and his explanation of the legal standard (based on Fourteenth Amendment cases) that he applied, I find that he appropriately focused on formal actions taken by legislative committees and on testimony before those committees rather than on statements of individual legislators. Furthermore, his Findings of Fact 16 through 28 demonstrate the complex evolution of Senate Bill 114 during the legislative process, and petitioners have failed to show, even by emphasizing aspects of the legislative history of Senate Bill 114 favorable to their views, that the stated purpose of the legislation as it was finally enacted could not have been its actual goal.

The petitioners also dispute the Administrative Law Judge's statement that a single instance of action by the General Assembly striking down or limiting the State's authorities within the meaning of Section 271.22(a)(1)(ii) or of failure by the State to issue permits within the meaning of Section 271.22(a)(2)(i) is not an adequate basis upon which to base withdrawal of the State's RCRA program authorization.

1/ Laidlaw Environmental Services, Inc., successor to GSX, and the Hazardous Waste Treatment Council.

2/ The State of North Carolina, the Environmental Policy Institute, the Conservation Council of North Carolina, Scotland County, Robeson County, and the City of Lumberton.

Assuming arguendo that a single instance of striking down or limiting authorities might under certain circumstances be sufficient to justify program withdrawal, the Administrative Law Judge is correct in finding that no such striking down or limiting of authorities has occurred here. The Administrative Law Judge is correct that a single instance of failing to issue a permit would not justify withdrawal of State program authorization. 45 Fed. Reg. 33384 (May 19, 1980).

In presenting their second argument, the petitioners reiterate that Senate Bill 114 lacks a basis in human health or environmental protection because it does not reduce the allowable concentration of chemicals in a facility's effluent or in the receiving stream. The petitioners and the Administrative Law Judge simply disagree on this issue. The Administrative Law Judge found that Senate Bill 114 would afford additional protection if permit or effluent limits were being violated, while the petitioners disagree that any significant design or operating failures might occur that would bring the one-thousand-to-one dilution requirement of Senate Bill 114 into play. In any event, this portion of the recommended decision is dictum.

The petitioners argue that the Administrative Law Judge erred in his interpretation of what constitutes a "sufficiently reasonable" basis under Section 271.4(a) for determining that Senate Bill 114 does not unreasonably restrict, impede or operate as a ban on the free movement of hazardous waste. However, I find that the Administrative Law Judge has interpreted Section 271.4(a) and related EPA policy statements correctly.

The petitioners also argue that the Administrative Law Judge's interpretation of the phrase "act as a prohibition" in Section 271.4(b) as meaning "an outright ban or refusal to accept hazardous waste" is an incorrect interpretation of that language, because the phrase "act as" indicates that "prohibitory legislation less severe than an outright or complete ban is a matter of concern to EPA."

However, the Administrative Law Judge has correctly based his interpretation on explanatory remarks by EPA in the Federal Register which indicate that the regulation applies to complete prohibitions. 45 Fed. Reg. 33395 (May 19, 1980).

For the reasons stated above, I deny all exceptions raised by the petitioners.

The respondents urge that I adopt the recommended decision, except for the Administrative Law Judge's statement that this proceeding is not subject to the Administrative Procedure Act. This exception involves a ruling concerning ex parte contacts which was issued by the Administrative Law Judge on November 30, 1989. In that ruling he denied North Carolina's motion for

dismissal, on the grounds, among others, that the Administrative Procedure Act, which authorizes dismissal as a sanction for ex parte contacts, was inapplicable.

After reviewing the respondents' arguments, I deny their exception on the basis that it has become moot. The respondents concede that this proceeding has actually been conducted in accordance with the Administrative Procedure Act; the Administrative Law Judge's decision not to dismiss this proceeding in November, 1989 was based on additional reasons which I find to have been a sufficient independent justification for his decision; and the respondents have now prevailed on the merits. Under these circumstances, revisiting the Administrative Law Judge's decision on this subsidiary issue would be pointless.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE ADMINISTRATOR

In the Matter of	)	
	)	
Proceedings To Determine Whether To Withdraw Approval of North Carolina's Hazardous Waste Management Program	)	Docket No. RCRA-SHWPAW-IV-01-87

Resource Conservation and Recovery Act - State Program Approvals - Withdrawal Proceedings - Consistency

Where a proceeding to withdraw North Carolina's hazardous waste program approval under § 3006 of the Act was instituted based on the contention that a statute enacted by the General Assembly, the ostensible purpose of which was to protect public drinking water supplies, had the effect of rendering the State's program inconsistent with the federal program and programs applicable in other states within the meaning of 40 CFR § 271.4 and the record did not support a finding either that the statute unreasonably restricted the free movement of hazardous waste across the State's borders for treatment, storage or disposal or operated as a prohibition on the treatment, storage or disposal of hazardous waste by facilities subject to the statute, nor did the record establish that the statute had no basis in human health or environmental protection, it was concluded that the State's program had not been shown to be inconsistent with the federal program or with programs in other states and a recommendation was made that the proceeding be dismissed.

Resource Conservation and Recovery Act - State Program Approvals - Withdrawal Proceedings - Action By The Legislature Striking Down State Authorities Or Failing To Issue Permits

Where statute enacted by North Carolina General Assembly had the effect of blocking the issuance of a permit to a commercial hazardous waste treatment facility (HWTF) and statute had a reasonable or plausible basis in protection of public health and the environment and could, in any event, be regarded as a statute imposing an additional requirement for the siting of a HWTF, a basis for withdrawal of the State's program authorization for action by the legislature in striking down the State's authorities or for failing to issue permits within the meaning of 40 CFR § 271.22 was not established.

C O N T E N T S

RECOMMENDED DECISION

This is a proceeding under § 3006(e) of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, Public Law 94-580, 90 Stat. 2795, October 21, 1976, and subsequent enactments, sometimes referred to as RCRA (42 U.S.C. §§ 6901 to 6999), to determine whether to withdraw North Carolina's hazardous waste program approval. The proceeding was commenced by an order, dated November 3, 1987, signed by the Acting Regional Administrator of EPA, Region IV (52 Fed. Reg. 49303-306, November 17, 1987). The order was precipitated by and based on an amendment to Article 9 of Chapter 130A of the General Statutes of North Carolina, § 130A-295.01 enacted by the General Assembly on June 22, 1987, hereinafter Senate Bill (SB 114) (Attachment A), which allegedly is not in conformity with RCRA. The Order constituted EPA's response to petitions pursuant to 40 CFR § 271.23(b) filed by GSX Chemical Services, Inc. (GSX) on September 28, 1987, and by the Hazardous Waste Treatment Council (HWTC) on October 1, 1987, requesting that North Carolina's hazardous waste program authorization be withdrawn.

In accordance with 40 CFR § 271.23(b)(1), North Carolina was required to answer the allegations in the order within 30 days. North Carolina filed an answer essentially denying the allegations of the order under date of December 16, 1987. Two environmental groups, the Environmental Policy Institute (EPI) and the Conservation Council of North Carolina (Conservation Council), also

sometimes referred to as Respondents, moved to intervene in opposition to the proposed withdrawal and have been admitted as parties. The Center for Community Action, Lumberton, North Carolina, the counties of Scotland and Robeson and the City of Lumberton, North Carolina, have been granted the right to make limited appearances pursuant to 40 CFR § 271.23(b)(5). Limited appearances have been determined to be the right to file an amicus brief or a statement of position in accordance with the briefing schedule established for parties. [1/]

The proceeding was initially on a "fast track" with the issues to be heard in a two-day hearing in Raleigh, North Carolina on January 12 and 13, 1988. Motions for discovery were filed, however, as well as motions for continuances upon the ground the existing schedule did not allow adequate hearing preparation. A prehearing conference was held in Raleigh, North Carolina on January 12, 1988, the date originally set for commencement of the hearing and the hearing was rescheduled for February 23-25, 1988 (53 Fed. Reg. 244, January 6, 1988). The hearing was again rescheduled to June 29, 1988 (53 Fed. Reg. 3894, February 10, 1988) and then to September 19, 1988 (53 Fed. Reg. 20845, June 7, 1988). Finally, the hearing was postponed until further notice (53 Fed. Reg. 32899, August 29, 1988). EPA issued a press release

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[1/] The City of Lumberton and Robeson and Scotland Counties have joined in the briefs filed by North Carolina and the Conservation Council. The Center for Community Action filed a paper labeled "Amicus Brief" on February 16, 1990.

announcing resumption of the hearing on April 19, 1989, and the hearing was rescheduled for the period May 31, June 1 and June 2, 1989 (54 Fed. Reg. 15940, April 20, 1989). The latter notice referred to the notice of August 29, 1988, and stated that EPA had completed its review of national issues.

Although the mentioned notices, save the one of August 29, 1988, do not specify a reason for the postponements, the hearing dates were rescheduled in order to allow the Task Force, commissioned by former Administrator Lee Thomas, to issue a report and policy recommendations on capacity and consistency issues. Section 104(c)(9) of the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. §§ 9601-9675), CERCLA or SARA, Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499 100 Stat. 1613, requires in effect that the states, in order to remain eligible for CERCLA funding, must, not later than October 17, 1989, provide satisfactory assurance that adequate capacity exists to provide for the destruction, treatment or secure deposition of all hazardous waste reasonably expected to be generated within the state during the 20-year period following entering into a contract or cooperative agreement to that effect with the President. Required capacity may include facilities in

other states pursuant to an interstate or regional agreement. [2/] Although the Task Force apparently never reached a consensus recommendation, its findings formed the basis of a recommendation by then Assistant Administrator J. Winston Porter that the CERCLA capacity assurance process be used as the primary vehicle for addressing CERCLA and RCRA hazardous waste treatment capacity issues and that state program authorization withdrawal under RCRA be reserved for the most egregious cases. [3/] Then Administrator Lee Thomas issued a policy memorandum on December 23, 1988, which essentially conformed to Dr. Porter's recommendation (Conservation Council Exh 1) and which was interpreted within the Agency as requiring or leading to the withdrawal or cancellation of the instant proceeding. [4/] Respondents' several motions that this

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[2/] By an order, dated January 26, 1990, official notice was taken of a SARA Capacity Assurance Regional Agreement entered into between the States of Alabama, South Carolina, Tennessee and Kentucky in October of 1989 and of the Expansion Of The SARA Capacity Assurance Regional Agreement, executed in November 1989, by which North Carolina became a party to the mentioned agreement.

[3/] Memorandum from J. Winston Porter, Assistant Administrator, to Lee M. Thomas, Administrator, dated May 16, 1988, Subject: National Review of RCRA and CERCLA Application To Waste Management Capacity Issues (Document A-9, EPA Disclosure Data). In response to orders of the ALJ, EPA submitted four installments of disclosure data relating to alleged ex parte communications which have been identified with the letters A, B, C and D. Documents in each installment are identified by the letter, followed by the number.

[4/] Testimony of Susan Absher, Chief of Oversight Section, State Programs Branch, Office of Solid Waste (OSW) (Tr. I-139). See also Order Denying Motions For Dismissal of Proceeding, For Recusal Of The Administrator and For A Complete Disclosure and Hearing On Alleged Ex Parte Communications, at 44, note 39. Because separate reporting services were utilized to transcribe the testimony and

(continued...)

proceeding be dismissed because of an alleged irrevocable taint arising from ex parte contacts during the course of the mentioned policy review and in meetings and discussions leading to the rescheduling of the instant hearing have been fully considered in the order, dated November 30, 1989 (note 4 supra), which denied the motions, and, notwithstanding the renewed demand of North Carolina and the Conservation Council for a hearing on alleged ex parte communications and for recusal of the Administrator, these issues will not be revisited.

RCRA envisages that primary administrative and enforcement activities will be performed by the states. To this end, RCRA § 3006(b) (42 U.S.C. § 6926(b)) provides that any state seeking to administer and enforce a hazardous waste program pursuant to this subchapter may develop and, after notice and opportunity for public hearing, submit to the Administrator an application, in such form as he shall require, for authorization of such program. The cited section further provides that such state is authorized to carry out its program in lieu of the Federal program under this subchapter and to issue and enforce permits for the storage, treatment, or disposal of hazardous waste, unless, within ninety days following submission of the application the Administrator notifies such state that its program may not be authorized and, within ninety days

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[4/](...continued)
transcript volumes compiled by the different reporting services are not sequential, references to the first six volumes of the transcript will be I followed by the page number, while references to the remaining 12 volumes will be II followed by the page number.

following such notice and after opportunity for public hearing, he finds that (1) such State program is not equivalent to the Federal program under this subchapter, (2) such program is not consistent with the Federal or State programs applicable in other States, or (3) such program does not provide adequate enforcement of compliance with the requirements of this subchapter. Regulations implementing statutory requirements for authorization of state programs are set forth in 40 CFR Part 271. Of particular interest here is 40 CFR § 271.4 "Consistency." [5/] North Carolina received final authorization to carry out its hazardous waste program on

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[5/] The cited regulation provides:

§ 271.4 Consistency.

To obtain approval, a State program must be consistent with the Federal program and State programs applicable in other States and in particular must comply with the provisions below. For purposes of this section the phrase "State programs applicable in other States" refers only to those State hazardous waste programs which have received final authorization under this part.

(a) Any aspect of the State program which unreasonably restricts, impedes, or operates as a ban on the free movement across the State border of hazardous wastes from or to other States for treatment, storage, or disposal at facilities authorized to operate under the Federal or an approved State program shall be deemed inconsistent.

(b) Any aspect of State law or of the State program which has no basis in human health or environmental protection and which acts as a prohibition on the treatment, storage or disposal of hazardous waste in the State may be deemed inconsistent.

(c) If the State manifest system does not meet the requirements of this part, the State program shall be deemed inconsistent.

December 31, 1984 (49 Fed. Reg. 48694, December 14, 1984). It should be noted that the pendency of this proceeding has not prevented North Carolina from applying for and being granted additional RCRA program authority (53 Fed. Reg. 29460, August 5, 1988; 54 Fed. Reg. 6291, February 9, 1989; and 54 Fed. Reg. 38993, September 22, 1989).

During prehearing proceedings, factual issues to be addressed at the hearing were rewritten (Order Establishing Issues, dated May 3, 1989, Attachment B).

A hearing on this matter was held in Raleigh, North Carolina during the period May 31, June 1, June 5 through June 8, July 18 through July 28 and September 18 through September 20, 1989. [6/]

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

[6/] This proceeding has been the subject of litigation in two Federal courts. On December 21, 1988, GSX and HWTC filed a petition in the Court of Appeals for the District of Columbia Circuit (Hazardous Waste Treatment Council and GSX Chemical Services, Inc. v. William K. Reilly, No. 88-1889) for a writ of mandamus ordering EPA to proceed with the postponed hearing. Motions to dismiss that petition as moot are pending. On June 2, 1989, Respondents petitioned the Court of Appeals for the Fourth Circuit for a stay of the hearing on the merits pending full disclosures by EPA relating to alleged ex parte communications. The stay was denied by Judge Dickson Phillips, sitting as a single Circuit Judge, State of North Carolina et al. v. EPA, 881 F.2d 1250 (4th Cir. 1989).

FINDINGS OF FACT [7/]

1. GSX Chemical Services, Inc. (GSX) is a chemical waste management firm which has operations in several states and which utilizes a broad variety of waste management techniques including incineration and aqueous treatment (Testimony of Dr. Nelson Mossholder, formerly a Vice President of GSX, Tr. II-212).

2. In April 1984, a firm known as SCA (apparently SCA Chemical Services, Inc., or a subsidiary thereof) announced plans for the construction of a hazardous waste treatment facility near Laurinburg, in Scotland County, North Carolina (Tr. II-690). GSX apparently acquired SCA or the rights to the site. GSX submitted a RCRA Part B permit application to the State (see 40 CFR § 270.10 et seq.) in July of 1985. [8/] This application is not in the record.

3. The proposed facility was to be an aqueous treatment plant designed primarily for the treatment of mixtures of organic and inorganic wastes (Tr. II-217). According to Dr. Mossholder, almost all aqueous treatment plants in existence today are designed either to treat organic or

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[7/] Proposed findings of the parties not adopted are either rejected or considered unnecessary to the decision.

[8/] Tr. II-217-230-687. A letter from the North Carolina Department of Human Resources, Fayetteville Division, to CRS Sirrine, Inc., consultants for GSX, dated May 16, 1985 (NC Exh 34) indicates that Sirrine had requested background information for preparation of the application at an earlier date.

inorganic compounds, but do not do a very good job of treating mixtures of the two. Dr. Mossholder described the facility as having 11 or 12 individual treatment processes that could be linked together in an almost unlimited variety of ways to allow the treatment of mixtures one component at a time (Tr. II-218-19). He stated that the design of the plant was such that it was going to be able to treat just about anything that could be treated in a tank and that provision had been made for any kind of a chemical reaction or physical separation that could be performed on a liquid in a tank.

4. A marketing study, performed before Dr. Mossholder was employed by GSX in September of 1985, indicated that approximately 50 percent of the waste to be treated at the proposed facility would come from North Carolina, approximately 17 percent would come from South Carolina and the balance from surrounding states (Tr. II-220). Describing wastes appropriate for treatment at the proposed facility, Dr. Mossholder mentioned latexes containing fungicides and brines containing organics and inorganics such as metals that would not properly be incinerated. He also mentioned metal finishing wastes, washing solutions, pharmaceutical wastes and almost any aqueous waste that would be generated by industry in North Carolina. He indicated that most of the [aqueous] wastes generated in North Carolina and shipped out of the State were characteristic wastes [40 CFR Part 261, Subpart C] or "F" wastes [40 CFR § 261.31] (Tr. II-223).

5. Consistent with the thought that the proposed facility could treat almost anything, Dr. Mossholder testified that the original application contained almost all EPA waste codes (Tr. II-233-34). Wastes containing PCBs, explosives, dioxins and radioactive materials would not, however, be accepted. Wastes which often contain traces of dioxin were also eliminated and Dr. Mossholder estimated the waste codes which were to be or could be treated at 250 (Tr. II-234, -303). He stated, however, that during the review of process it was pointed out that there were no approved analytical methods for some of these compounds and that GSX agreed not to accept waste codes for which approved analytical test methods were not available. He explained that GSX was able to do this, because the vast majority of wastes it expected to receive were "D" or "F" wastes (40 CFR Part 261, Subparts D and F).

6. GSX proposed to discharge its wastes to the Laurinburg-Maxton Airport Commission (LMAC) publicly owned treatment works (POTW), which in turn discharges to the Lumber River. GSX was required to obtain a RCRA treatment and storage permit from the State, a pretreatment permit under the Clean Water Act (CWA) from the LMAC and the LMAC's CWA NPDES permit would require modification in order to establish effluent limits for the pollutants to be introduced into the system by GSX (Testimony of John T. Marlar, Chief Facilities Performance Branch, Water Management Division, EPA Reg. IV, Tr. I-449-50). See also 40 CFR Part 403, General Pretreatment Regulations For

New and Existing Sources of Pollution. A preliminary draft RCRA treatment and storage permit was issued by the Solid and Hazardous Waste Management Branch, Environmental Health Section of the North Carolina Department of Human Resources (DHR) in September 1986. [9/] Table II-A of the draft contained a list of hazardous wastes acceptable for treatment and handling by GSX together with a reference to the approved or accepted analytical test method. Dr. Mossholder stated that the fact a chemical was on Table II-A did not mean it would be discharged by GSX, because part of the GSX facility was to be for drum transfer and storage, i.e., wastes would be accepted in drums and stored until a trailer-load was accumulated (Tr. II-238). These wastes would then be shipped for disposal at an incinerator or landfill. Table II-B contains a list of wastes which were not acceptable and for which approved analytical test methods were apparently not available. Dr. Mossholder testified that the fact an EPA approved analytical method was not available for a particular chemical did not mean that chemical could not be detected (Tr. II-236-37).

7. Table V-A of the preliminary draft contained a listing of drinking water standards (DWS) at the City of Lumberton

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[9/] North Carolina Exh 16; Testimony of William Meyer, Chief Solid and Hazardous Waste Management Branch, Division of Health Services, DHR (Tr. II-918-19). The draft bears stamped dates of September 12 and 19, 1986.

drinking water intake. Dr. Mossholder described Table V-A as Table II-A with all infrequently encountered wastes removed (Tr. II-240, 241-2). Referring to compounds on Table V-A for which DWS had not been developed, Dr. Mossholder stated that everyone recognized that the toxicological data bases for these high volume compounds were imperfect (Tr. II-244-45). He pointed out, however, that many of these compounds were on EPA's Priority Pollutant List under the CWA, [10/] that the toxicological data bases for these compounds were improving and that, because construction of the plant would take two or three years, data from which to prepare DWS would be available before the plant opened. Explaining his understanding of the way the permit would work, he testified that GSX would accept for treatment and discharge only wastes for which analytical methods and DWS had been developed and from which water quality standards (WQS) and discharge standards could be prepared (Tr. II-245).

8. Appendix M of the preliminary draft permit sets forth the methodology to be used in determining DWS for compounds listed

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[10/] Priority pollutants are so named, because EPA agreed to give priority thereto in developing effluent limits for the listed toxic pollutants as part of the settlement of a lawsuit which was incorporated into a consent decree, Natural Resources Defense Council v. Train, 8 Env't Rep. Cas. (BNA) 2120, 2122 (D.D.C. 1976). The original list contained 65 compounds, which has since been expanded to 126. Congress largely accepted the substance of the consent decree in the CWA amendments of 1977, CWA § 307, 33 U.S.C. § 1317 (Pub. L. No. 95-217, 91 Stat. 1566 (1977)). See Gold: EPA's Pretreatment Program, Boston College Environmental Affairs Law Review, Vol. 16, No. 3 at 459 (1989).

in Table V-A. For any compound for which a maximum contaminant level (MCL) had been established under the Safe Drinking Water Act (SDWA), the DWS at the Lumberton intake was equal to the MCL. If an MCL was not available and the compound was a carcinogen, the DWS was to be a concentration equivalent to a one-in-one million lifetime cancer risk (1 to 10^{-6}) using the linearized multistage model and assuming continuous exposure. For toxic compounds not having MCLs and considered not to have carcinogenic potential, "no effect" levels for chronic-lifetime periods of exposure including a margin of safety, referred to as an "acceptable daily intake" (ADI), were to be used or calculated. ADIs are exposure levels estimated to be without significant risk to humans when received daily over a lifetime. EPA-verified reference doses (RFDs), or ADIs reviewed and accepted by the scientific and regulatory communities, were to be used to calculate MCLs. MCLs so calculated were to be the DWS for noncarcinogens unless apportionment was appropriate. [11/] For noncarcinogenic compounds not having RFDs or ADIs readily available, the

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[11/] "Apportionment" is a method of allocating exposure between various media, e.g., drinking water and consumption of fish. Apportionment is considered unacceptable for carcinogens, because of the large uncertainty factors inherent in the estimation procedure. For noncarcinogens without promulgated MCLs, apportionment factors were to be applied to two categories of chemicals, those considered ubiquitous and those that bioaccumulate. For chemicals known or having the potential to bioaccumulate, the DWS was to be 20 percent of the MCL (NC Exh 16 at Appendix M-2).

highest "no-observed-adverse-effect-level" (NOAEL) is based upon an assessment of available human or animal data. A NOAEL is the highest dose of a substance that causes no statistically or biological significant effect in appropriately conducted tests. The ADI was to be computed by dividing the NOAEL by suitable uncertainty factors. Dr. Mossholder confirmed this methodology for calculating discharge standards (Tr. II-246-48, 253-55).

9. EPA submitted comments on the preliminary draft permit to DHR under date of January 30, 1987 (letter of even date, EPA Exh 5, Doc. No. 38). EPA pointed out that the major issue requiring consideration was whether it was appropriate to attempt to ensure drinking water standards downstream of a facility through a RCRA permit for that facility. DHR was advised that, because there are a number of industrial and municipal discharges in the Lumber River Basin above the Lumberton intake, protecting water quality at the City's water intake was dependent upon setting appropriate effluent limits on all wastewater discharges. The letter stated that the most appropriate mechanisms for protecting drinking water standards were through NPDES permits issued under the CWA and associated pretreatment limits established by POTWs for industrial discharges. EPA recommended that the NPDES permit issued to the LMAC have limits which will ensure protection of the drinking water supply at Lumberton, that after the NPDES limits were set the POTW could then issue an industrial

discharge permit to GSX with appropriate limits and the RCRA permit could then include specific effluent limitations imposed by the POTW. [12/] EPA made other recommendations, e.g., that the RCRA permit provide that GSX cannot receive hazardous wastes until it has an industrial discharge permit from the LMAC, that all calculations relating to development of DWS be based on the expected [maximum] discharge of 900,000 gpd, that GSX provide sufficient tank capacity to allow a 48-hour toxicity test on each batch of wastewater prior to discharge to the POTW and that the permit specify actual effluent limits for GSX's discharge to the POTW.

10. A draft permit, designating GSX as the permittee, was issued by DHR on April 2, 1987 (EPI Exh 2; Press Release, GSX Exh 11). The draft authorized GSX to store, treat and manage categories of hazardous wastes listed in its permit application and as shown on Table II-A. Table II-A contained a list of "P" and "U" wastes [13/] together with a reference to the approved EPA analytical method. Table II-B contained a list of "P" and "U" wastes which were not acceptable and the

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[12/] An excerpt from GSX's permit application to LMAC, dated January 1986, is in the record (NC Exh 46). EPA's comments indicated that it had reviewed a proposed NPDES permit for the LMAC. This proposed permit is not in the record.

[13/] "P" wastes are acutely toxic while "U" wastes are toxic [40 CFR § 261.33(e) and (f)). According to Dr. Mossholder, 0.1% of all hazardous waste generated in North Carolina is in the "P" and "U" category (Tr. II-237).

draft permit specifically provided that before any of these wastes could be received on site, analytical methods shall be in place and approved by the Secretary of DHR or his designee. Part V, Para. D. of the draft provided that after final treatment, the discharge water will be held in tanks and analyzed to assure acceptability for discharge to the LMAC-POTW. If the discharge were not within acceptable limits, further treatment was required. To address concerns about the impact of the proposed discharges on the Lumber River and the City of Lumberton's drinking water supply and to assure that the discharges not pose an unreasonable risk to human health and the environment, GSX's discharges were required to comply with criteria in the LMAC-POTW permit. The draft further provided that violation of the POTW permit would constitute a violation of the RCRA permit. [14/]

11. The draft permit provided that the entire wastewater treatment plant area (WWTP) was to be paved and curbed (Part V, EPI Exh 2 at 29). The curbing, which was to be roll-over type to permit traffic access, and paving were to be an extension of the site's tertiary level of spill containment. Dr. Mossholder referred to this as the active portion of the site, containing 93,000 sq. ft., or in excess of two acres (Tr. II-350). The maximum waste water flow rate from the

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[14/] Absent evidence that GSX caused or contributed to the violation, this provision would seem difficult to enforce. See Gold, note 10, supra.

facility was to approximate 500,000 gallons per day (gpd). Basins to be constructed in the WWTP area included a tertiary containment basin of 250,000 gallons capacity, an equalization basin of equal capacity, two primary clarifiers of 66,000 gallons capacity each, two secondary clarifiers of 90,000 gallons capacity each, six sequencing batch reactors each having 187,000 gallons capacity and four effluent holding basins, each of 125,000 gallons capacity. [15/] Because incoming wastes were to be held separately until treated or until it was determined to be appropriate to commingle the wastes, there were to be 93 storage and treatment tanks (Draft Permit, Part IV at 25; Mossholder, Tr. II-340; White, Tr. I-1231). Part V, Para. D., "Special Conditions" of the draft permit required that GSX meet discharge criteria established in the POTW permit (EPI Exh 2 at 30). Dr. Mossholder testified that during discussions on the [RCRA] permit application, GSX was informed that it would be required to contain and treat water falling on the paved area from a 100-year storm event (Tr. II-272). This volume of water was estimated to be 475,350 gallons. [16/] In other testimony, he stated that there was no

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[15/] Id. Dr. Mossholder assumed that each tank would be drained separately at a steady rate once each day (Tr. II-264-65). This, of course, would equal the maximum discharge of 500,000 gallons a day.

[16/] Tr. II-313. It is noted, however, that Part IV, Para. F of the draft permit provides for containment of 100 percent of the design capacity of the largest tank within [facility] boundaries, "plus any precipitation calculated using the 25-year, 24-hour (continued...)

way a spill in a well-designed plant could reach a sewer and become an uncontrolled discharge (Tr. II-262). He explained that spills would be collected in blind sumps or shallow depressions on the floor and there being no pipe outlet, the spilled materials would be pumped into a tank, treated and discharged.

12. A letter from GSX, signed by Dr. Mossholder, to Dr. Linda Little, Executive Director of the Governor's Hazardous Waste Management Board, [17] dated March 21, 1988 (NC Exh 9), stated that the average volume of waste expected to be received at full operation was 100,000 gallons a day. Dr. Mossholder explained this letter by stating that 100,000 gpd of wastes coming into the facility (approximately 20 truckloads) were consistent with phase one of the facility as planned. [18] He

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[16] (...continued)
rainfall event."

[17] The Governor's Waste Management Board was created in 1981 and empowered, inter alia, to evaluate and assess the volume, distribution, location, and physical and chemical characteristics of hazardous and low-level radioactive waste generated or disposed of in the State; to promote research and development and disseminate information on state-of-the-art means of handling and disposing of such wastes and to prepare and file jointly with the Governor and the General Assembly an annual report describing the Board's activities and recommendations for action to improve the State's waste management system (G.S. § 143B-216.13).

[18] Tr. II-267, 269-70. He indicated that the only differences between phase one and phase two were some additional facilities in the biological end of the plant, i.e., primary clarifier, secondary clarifier and some additional aerobic reaction vessels.

testified that this volume of incoming wastes was originally estimated to result in a discharge of approximately 250,000 gpd. He stated that the facility was originally designed to accommodate approximately 300,000 gpd incoming wastes (phase two) which would result in a discharge of 500,000 gpd. He explained that the imposition of more stringent requirements during the permitting process, such as the need to contain water from a 100-year storm event and the need to hold wastes so that a bioassay could be performed on each batch prior to discharge, in effect decreased the capacity of the facility (Tr. II-270-73). He emphasized that 500,000 gpd was an absolute maximum discharge and that because of the mentioned changes, actual discharges would probably average 250,000 to 300,000 gpd. Differences between incoming wastes and discharges were attributed to water required for rinsing tanks, trucks and containment areas, to rainwater accumulating in containment areas, to process water necessary for preparation of raw materials and to water required for general housekeeping purposes. The difference between the volume of incoming wastes and expected discharges was essentially confirmed by Dr. Sam C. White, an engineer and employee of Sirrine Environmental Consultants, an engineering and consulting firm employed by GSX to design the proposed facility. Dr. White identified sources of additional water in the discharges as up to 210,000 gpd purchased from the

LMAC, approximately 40,000 gpd from a well on the site and an average of 7,000 to 7,500 gpd from rainwater (Tr. I-1230).

13. In 1984, the North Carolina General Assembly reaffirmed its 1981 finding that the safe management of hazardous waste, and particularly the timely establishment of adequate facilities for the disposal and management of hazardous waste, was one of the most urgent problems facing North Carolina. [19/] To this end, it created the Hazardous Waste Treatment Commission empowered, inter alia, to site, construct, and operate a comprehensive hazardous management facility in the event private enterprise failed to do so within a specified time. [20/] One of the first tasks of the Commission was to assess North Carolina's waste management needs and to present a comprehensive plan for the management of those needs to the General Assembly, if the needs were not being met by private

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[19/] See North Carolina General Statutes (G.S.) § 143B-470 (1984) EPA Exh 5, Doc. No. 13. The 1981 finding was made in legislation which established the Governor's Hazardous Waste Management Board (note 17, supra).

[20/] If no permit to operate a hazardous waste treatment facility had been issued to a private operator by January 1, 1986, the Commission was to actively seek communities interested in siting and operators for such facilities. If no permit [application] to operate a hazardous waste treatment facility was pending which was likely to be granted by July 1, 1986, the Commission was to select appropriate sites and begin proceedings to purchase or, if necessary, condemn, property for such sites. If no permit to operate a hazardous waste treatment facility has been issued by January 1, 1987, the Commission was to submit plans for the construction of such a facility to the General Assembly and begin construction within one year (G.S. § 143B-470.4(b)).

industry. [21] The Commission contracted with the Radian Corporation to perform an assessment of the need for hazardous waste treatment in North Carolina. The Radian Corporation's report (HWTC Exh 3), presented in December 1985, concluded that the demand for TSD capacity will grow substantially over the coming years and that present and planned treatment capacity within the State would absorb only part of the projected demand (Tr. II-708-09; GSX Exh 5 at 14). This report assumed the existence of the aqueous treatment capacity to be provided by Ecoflo in Greensboro and by the proposed GSX facility. The Commission determined to design a facility having a capacity of 88 million pounds a year and three components, liquids and solids incineration, a chemical treatment or aqueous component and a solid recovery-recycle component. [22] The aqueous component was to have a capacity of approximately 19 million pounds a year or 7,594 gallons a day

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[21] Testimony of Daryl Hennett, Executive Director of the North Carolina Hazardous Waste Management Commission, formerly the Hazardous Waste Treatment Commission (Tr. II-705); The North Carolina Hazardous Waste Commission Report To The Hazardous Waste Management Study Commission, dated September 2, 1988 (GSX Exh 5). The Hazardous Waste Management Commission was created by Chapter 168, 1989 Session Laws (May 30, 1989), SB 324 (NC Exh 21). The Hazardous Waste Study Commission is a legislative body (Tr. II-704).

[22] Tr. II-710. Although the statute specified that the proposed facility was to be "comprehensive," it did not include a landfill component, because the Act establishing the Commission provided that no hazardous waste landfill may be sited until at least one comprehensive hazardous waste treatment facility has been established.

based on an assumed operating rate of 300 days a year (Tr. II-712, -764). The facility was intended to treat only wastes generated in North Carolina (Tr. II-850).

14. The Treatment Commission adopted siting guidelines which specified, inter alia, that the site should have a POTW available to it and be within 25 miles of an interstate highway (Tr. II-714-15, -717; GSX Exh 6). Mr. Hennett explained the reasons for the former guideline as making it easier to obtain an adequate discharge for effluent from the facility and as lessening public opposition, in that the POTW would provide another layer of treatment and also allow the facility to be a source of revenue for the community. The reason for the second of the mentioned guidelines was simply to minimize the distance between the proposed facility and major transportation routes (Tr. II-716). Another guideline specified that the site have undisturbed ground surfaces, before construction begins, of five feet or more above the historic high groundwater table. Mr. Hennett indicated that application of this guideline would eliminate almost all the shaded area as shown on a map (GSX Exh 8) of the State from consideration for an acceptable site (Tr. II-777). The guidelines were not intended to apply to other industrial or hazardous waste facilities current or planned (Tr. II-714).

15. At the time SB 114 was enacted on June 22, 1987, the treatment commission had narrowed proposed sites from an original 519 to 56 (Tr. II-720). In September of 1987, the Attorney

General ruled that SB 114 applied to any facility the Commission proposed to site. [23/] The list of proposed sites was subsequently narrowed to two, one in Davidson County and one in Rowan County, both sites in the Yadkin-Pee Dee River Basin (Tr. II-720, -721; map, GSX Exh 8). In terms of flow, the Yadkin which flows into the Pee Dee River, is one of the largest rivers in North Carolina. In the summer of 1987, the Commission held a series of meetings across the State with particular attention to those counties containing a potential site for its proposed facility. [24/] In November of 1987, the Treatment Commission voted to eliminate the last two sites on the list and to look for other sites (Tr. II-723). Although the Commission subsequently selected a site located on the Deep River in Lee County, no work on developing the site has been undertaken because of a moratorium imposed by the General Assembly (Tr. II-726-29).

16. On March 4, 1987, a bill, referred to as DRS 259-LD12, bearing the short title "Suspend Hazardous Waste Permits" was

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[23/] Although SB 114 does not apply to facilities owned by the State or any subdivision thereof solely for the treatment of hazardous waste generated by the State or agencies or subdivisions thereof, the Treatment Commission's proposed facility was not intended to be limited to waste generated by State agencies. The record does not disclose the expected daily discharge of the Commission's proposed facility.

[24/] Tr. II-721-22. Mr. Hennett described one such meeting in Lexington (Davidson County) when only Davidson and Rowan Counties remained on the list of potential sites, as attended by 15,000 angry citizens (Tr. II-723).

introduced in the Senate of the North Carolina General Assembly. [25/] A purpose and effect of the bill was to preclude the acceptance of an application for, or an amendment to, an existing permit or the issuance of a permit, or an amendment thereto, for a hazardous waste facility. The bill appeared to be directed primarily at preventing the Hazardous Waste Treatment Commission from selecting or operating a hazardous waste facility and the Governor's Waste Management Board from approving the operation of such a facility. Section two of the bill provided that it was not applicable to any person disposing of hazardous waste generated by that person and that it did not affect the validity of an existing permit. The bill was to be effective on ratification and to expire August 1, 1987. Designated SB 114, the bill was referred to the Committee on Environment on March 5, 1987. A proposed Committee substitute, S 114-CSLD-2 (EPA Exh 5, Doc. No. 8), inter alia, deleted the prohibition preventing the Hazardous Waste Treatment Commission from selecting and operating a hazardous waste facility, prohibited issuance of draft as well as permanent permits for hazardous waste facilities, deleted all references to amendments to existing permits so that amendments to existing permits would be unaffected and changed

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[25/] EPA Exh 5, Doc. No. 3. A copy of the proposed bill had been sent to EPA, Region IV for comment as to its effect on North Carolina's hazardous waste program authorization on February 25, 1987 (letter from the North Carolina DHR, Division of Health Services, signed by William L. Meyer, EPA Exh 7).

the expiration date of the bill from August 1, 1987, until such time as the Treatment Commission completes its site selection criteria and reports it to the General Assembly (EPA Exh 5, Doc. No. 8). During Committee discussion on the bill, Senator J. Richard Conder, one of the bill's sponsors, [26/] stated that sometime after the week of March 16 the Health Services Division of DHR was probably going to issue a draft permit for the siting of a hazardous waste facility in North Carolina (Transcript of Legislative Proceedings, March 12, 1987, EPA Exh 5, Doc. No. 10). He argued that the State was in no position to issue a draft permit until the Treatment Commission had completed its work, i.e., issued guidelines and recommended a site. He specifically referred to the proposed GSX facility, leaving little doubt that delaying GSX was his purpose in sponsoring the bill. He pointed out that references to an amendment of an existing permit had been deleted so that existing facilities would not be affected.

17. EPA responded to the February 12 inquiry as to the effect of the original version of SB 114 on North Carolina's hazardous waste program authorization (note 25 supra) under date of March 17, 1987 (letter signed by James H. Scarbrough, Chief

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[26/] Senator Aaron Plyler was the other sponsor of the bill. It is of interest that Senator Plyler was one of the members of the Hazardous Waste Study Commission (note 21, supra), which recommended creation of the Hazardous Waste Treatment Commission. Senators Conder and Plyler represent Scotland County in the General Assembly (EPA Exh 5, Doc. 10 at 2).

Residuals Branch, Waste Management Division, EPA Exh 8). The bill was described as a suspension of the State's authority to accept and act upon permit applications and to amend existing permits. It was pointed out that a state program lacking such authority was not the equivalent of the federal program and was not consistent with federal and state programs applicable in other states. The letter concluded that, because the proposed bill clearly limited the State's legal authority regarding RCRA permits and could prohibit the State program from issuing necessary permit modifications, enactment would authorize EPA to withdraw approval of the State program pursuant to 40 CFR §§ 271.22(a)(1)(ii) and 271.22(a)(2)(i). EPA opposed passage of the bill and warned that, if the bill became law, North Carolina's hazardous waste program authorization was in jeopardy.

18. Thereafter, the Committee on Environment reconsidered its previous vote by which it gave the Committee substitute for SB 114 a favorable report (Transcript Of Legislative Proceedings On Senate Bill 114, March 19, 1987; EPA Exh 5, Doc. No. 16). Various revisions to the bill were drafted, including a version making the Act applicable only to the issuance of a permit, but not the issuance of a draft permit, and again establishing an expiration date of August 1, 1987 (S 114-CSRT-001, EPA Exh 5, Doc. No. 18). A second version of the bill (S 114-CSRT-002, Doc. No. 19) contained a provision voiding the Act, if the Administrator of EPA ordered

the commencement of proceedings to determine whether to withdraw North Carolina's hazardous waste program approval. A third version of the bill referred to the Treatment Commission as being in the process of selecting and acquiring a site for a hazardous waste treatment facility, and contained a finding that it was in the best interest of the State that DHR not grant a permit for a hazardous waste treatment facility until the Treatment Commission selected and acquired a site for such a facility and changed the expiration date of the Act to October 1, 1987 (S 114-CSRT-003, EPA Exh 5, Doc. No. 20). The substance of the bill, including the voiding provision, was the same as the prior version. Other versions of the bill, S 114-CSRT-004-009 (EPA Exh 5, Doc Nos. 22 through 25) are in the record. These versions of the bill do not appear to have received extensive Committee consideration.

19. A revision of the bill (S 114-CSRT-10) bearing the short title "Additional Hazardous Waste Treatment Facility Requirements" and the date April 14, 1987, in effect substantially adopted the siting guidelines of the Treatment Commission (GSX Exh 6) as additional requirements for the permitting of a new commercial hazardous waste facility or the modification of an existing permit for a commercial hazardous waste treatment facility (EPA Exh 10). The bill defined "new' when used in conjunction with "facility" as referring to a planned or proposed facility, or a facility which has not been placed in operation, but did not include facilities which have commenced

operations as of the date this section became effective including facilities operated under interim status. This bill was sent to EPA, Region IV for comment on April 15, 1987. By letter, dated April 23, 1987, EPA responded, pointing out, inter alia, that the definition of "new" was not similar to EPA's and risked being discriminatory, because only GSX Laurinburg would be affected (EPA Exh 5, Doc. No. 32; EPA Exh 12). EPA further pointed out that many of the eleven siting restrictions should not, from an engineering standpoint, be applicable to a commercial facility, but that all such facilities would unnecessarily be subject to all the mentioned restrictions. Stating that several of the criteria could be used to prevent siting of a facility, EPA emphasized that application of such criteria was largely subjective. EPA objected to Section (d)(1), requiring evidence by each applicant of financial responsibility, in the form of insurance or other guarantee, adequate to compensate all potential claimants for any injury or loss which may result from operation of the facility, as prohibitively expensive and amounting to an outright prohibition of facilities, which would jeopardize the State's [RCRA] authorization. EPA concluded that the "severability" provision, voiding any provision of the Act which would result in withdrawal of North Carolina's hazardous waste program, would essentially render the bill a nullity, that application of the siting criteria to facilities seeking permit modifications was particularly

troubling and that without new facilities or modifications to existing facilities, North Carolina would be hard pressed to find alternative capacity for wastes restricted from land disposal.

20. The requirement that a commercial hazardous waste treatment facility not directly or indirectly discharge a hazardous or toxic substance into surface water that is upstream of a public drinking water intake, unless there is a dilution factor of 1,000 or greater at the point of discharge under 7Q10 conditions, first appeared in S 114-CSRT-011, May 4, 1987 (EPA Exh 5, Doc. No. 35; EPA Exh 13). This bill was also referred to EPA, Region IV for comment. EPA's response, letter dated May 13, 1987 (EPA Exh 14; EPA Exh 5, Doc. No. 37), stated, inter alia, that the bill would have a substantial negative impact on the RCRA permitting program in North Carolina in that it would significantly hamper the siting of commercial facilities for essentially groundless reasons. In support, EPA asserted that the assumption wastewater from a commercial facility is more hazardous than wastewater from a "private" facility was incorrect, that the exclusion of state-owned facilities [from the Act's coverage] undermined the technical integrity of the claimed need to

protect surface waters, [27] that the dilution factor of one thousand is clearly arbitrary and without technical basis and that refusing to consider the benefit of further dilution through a POTW was environmentally unreasonable and technically unsound. In conclusion, EPA observed that S 114-CSRT-011 was the third proposed bill concerning the prohibition of selected commercial facilities in North Carolina and that the bills all appeared to be worded to prohibit the proposed GSX Laurinberg facility and no others. EPA warned that such repeated attempts to override the authorized permitting program were tantamount to the legislature attempting to limit the State's authorities and grounds for withdrawal of the approved program in accordance with 40 CFR § 271.22(a)(1)(ii).

21. In Committee discussions on S 114-CSRT-011, counsel for the City of Lumberton and Scotland and Robeson Counties argued that the bill provided a safety factor in case of violations of the permit limits (Transcript of Legislative Proceedings, Committee On Environment, May 14, 1987, EPA Exh 5, Doc. No. 43 at 11-13). He also pointed out that restricting the size of the facility to meet the 1,000-to-one dilution factor would be adequate to meet North Carolina's needs [for waste

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[27] This statement is overly broad, because State-owned facilities are excluded only if treatment is limited to wastes generated by the State, its agencies or subdivisions (supra at note 23).

treatment]. Although concern was expressed over loss of EPA funding and of State control over the program, the Committee unanimously voted to give the bill a favorable report. During Senate debate on the bill it was emphasized that a plant the size of the proposed GSX facility could treat all of the hazardous waste produced by North Carolina in 44 days leaving over 300 days a year in which to treat hazardous waste from around the nation and the world (Transcript of Proceedings Senate Bill 114, May 19, 1987, EPA Exh 5, Doc. No. 50 at 4). Only Senator Dennis Winner, Chairman of the Committee on Environment, spoke against the bill, emphasizing that EPA had repeatedly warned that it would seriously consider withdrawing the State's program authority if the bill were passed, that EPA had determined the planned facility in Scotland County was satisfactory from an ecological point of view, that members of the Senate were not qualified to make the decision as to whether the facility should be built as planned and that passage of the bill would end up costing the State, because the whole purpose of every version of the bill was to stop GSX. He asserted that a hazardous waste treatment facility was needed in North Carolina and that the State would have to build it, if private industry did not, which was unlikely considering the fate of the GSX facility. The bill was passed with an amendment adding a new Section 2 to the effect that, if any provision of this Act caused the Administrator of EPA

to withdraw the State's program authority, such provision was void.

22. In the House, the bill was considered by the Committee On Water and Air Resources. [28/] A fact sheet distributed by supporters of the bill stated that its primary purpose is to protect the safety of North Carolina citizens who depend on surface waters downstream from a hazardous waste treatment facility for drinking water. The fact sheet asserted that the bill was necessary in order to protect against permit violations, that GSX had already sent solicitation letters to potential customers in other states and that the amount of waste to be treated was staggering. [29/] Dr. Linda Little of the Governor's Waste Management Board spoke against the bill, saying that she agreed with Mr. James Scarbrough of EPA that the dilution factor was arbitrary and that concentration, not volume, was important. In further House Committee

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[28/] Minutes Transcript, May 27, 1987; EPA Exh 5, Doc. Nos. 47 and 52. Statements in the House referring to the need or desire "to get GSX" were made by Mr. Al Adams, an attorney-lobbyist for GSX, reporting on Senate proceedings on the bill, and not by any member of the House Committee (Transcript, June 3, 1987, Doc. No. 53 at 17).

[29/] Warning that hazardous wastes included toxic poisons and carcinogens, it was alleged that allowing such wastes to reach public water supplies could have deadly effects on many people for years to come. The high cancer rate in the Town of Bynum on the Haw River was cited as an example. The Town of Bynum, which uses the Haw River as a water supply, has a cancer death rate of two to two and a-half times the State of North Carolina as a whole (testimony of Dr. Carl Shy, a medical doctor and epidemiologist employed by UNC, Tr. II-1415-16).

deliberations, Dr. Earl MacCormac, the Governor's Science Advisor, opposed SB 114 upon the ground that permitting decisions should be based upon fact and law and not political consensus (Transcript, June 10, 1987, EPA Exh 5, Doc. No. 55). He emphasized that the decision of whether this particular permit was adequate to protect public health and safety should be made by the staffs of DHR and Natural Resources and Community Development (NRCD). He warned that there were two consequences of SB 114, one, being the possible loss of control over permitting and the take-over by EPA of the hazardous waste program area and two, being a diminishing of the health and safety of the citizens of North Carolina in that EPA [water quality] standards were not as stringent as North Carolina's. Nevertheless, the bill was voted out of the Committee with a favorable report on June 10, 1987. The bill passed the house on June 19, 1987, and was enrolled and ratified on June 22, 1987 (EPA Exh 5, Doc. No. 67).

23. In a letter to Governor James G. Martin, dated June 3, 1987, Regional Administrator Jack E. Ravan reiterated EPA's concerns over SB 114 which had passed the Senate and was then being considered by the House (EPA Exh 15). He offered to meet with the General Assembly to discuss EPA's position on the bill and assured the Governor that EPA Headquarters and Region IV were united in the position that the proposed legislation would raise significant issues as to the State's authority to operate its hazardous waste program. In a reply, dated

June 9, 1987, Governor Martin stated that scientific fact and application of the law should be the primary factors governing decisions involving permits (EPA Exh 16). He indicated he and his Science Advisor, Dr. Earl MacCormac, were concerned that Senate Bill 114 introduced politics into the regulatory system and expressed the hope that the General Assembly would settle this issue wisely by not passing bills directed to prohibit specific facilities.

24. A copy of SB 114 as enacted by the General Assembly was sent to Mr. Scarbrough, Region IV on June 22, 1987 (EPA Exh 18). By letter addressed to David T. Flaherty, Secretary of the North Carolina DHR, dated July 8, 1987, EPA again stated its position that the impact of SB 114 was to render North Carolina's hazardous waste program inconsistent with the federal and other authorized state programs. The State was requested to furnish various information including the basis in human health or environmental protection of the discharge provisions of the Act, reasons for the dilution requirement being applicable only to commercial hazardous waste treatment facilities, the public health and environmental rationale for not considering the concentration level of a hazardous or toxic substance and the dilution and treatment which occurs in POTW. The State was also requested to supply a copy of transcripts of proceedings concerning SB 114 in the General Assembly.

25. Secretary Flaherty replied to the EPA request referred to in finding 23 on August 3, 1987 (EPA Exh 21). He emphasized that under the North Carolina Constitution, the Governor lacked veto power and that the constitutional provision requiring the Governor ensure that the laws be "faithfully executed" meant that he could not voice opposition to a law once enacted. He pointed out, however, that Governor Martin and his administration had opposed SB 114 as unfair and without adequate basis in scientific fact. The unfairness assertedly arose from the intent of the Act's sponsors to prevent the location of a hazardous waste treatment plant in a particular locality. The assertion the Act lacked an adequate scientific basis was based on the focus upon a dilution factor to protect drinking water without sufficient attention to other environmental health factors affecting the purity of drinking water. He elaborated on these arguments, enclosed maps showing potential wastewater discharge zones estimated to comply with the dilution restrictions of SB 114 and a listing of the locations of water supply intakes on surface waters. Secretary Flaherty stated that by limiting discharges above water intakes without regard to concentration, the Act will restrict discharges from all commercial hazardous waste facilities that operate treatment units discharging to locations specified in the Act. He indicated that a copy of the transcripts of legislative proceedings regarding SB 114

was being sent under separate cover. [30/] He reiterated that, although the Governor and his administration were bound to ensure execution of this law and would do so, they did not think SB 114 was an adequate law.

26. Enclosures to Secretary Flaherty's letter to the Regional Administrator referred to in the preceding finding included a letter to Mr. Flaherty from the North Carolina General Assembly, Senate Chamber, dated August 3, 1987, signed by Senator J. Richard Conder, one of the sponsors of SB 114. [31/] The letter referred to the policy as expressed in Article XIV, § 5 of the North Carolina Constitution to conserve and protect the lands and waters of the State and that it was a proper function of the State and its political subdivisions to control and limit the pollution of air and water. Explaining that the purpose of the Act is to protect public drinking water supplies and to provide a safety factor in the event of permit violations by a hazardous waste treatment facility or the POTW through which it discharges, the letter purported to answer questions in the EPA letter of July 8, 1987 (finding 24). Human health and environmental protection bases for the Act were asserted to lie in the fact that a commercial

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[30/] This is EPA Exh 5 referred to in findings 16-22 concerning the enactment of SB 114.

[31/] Although the letter also bears the typed name of Senator Plyler, it was signed only by Senator Conder.

hazardous waste facility could be expected to treat almost 200 highly toxic, carcinogenic or mutagenic substances and that there were uncertainties associated with the identification and treatment of these substances. [32/] Contending that the fact a commercial hazardous waste treatment facility (HWTF) discharged through a POTW did not provide adequate protection for public drinking water supplies, the letter pointed out that the compliance rate for minor POTWs in North Carolina during the past two years was only 76%. The 1,000-to-1 dilution allegedly provided a safety factor for commercial HWTFs located upstream from municipal drinking water intakes and encouragement for those seeking to establish large HWTFs to site their facilities below and not above drinking water intakes. [33/] Denying that the Act would prohibit the construction of any new HWTFs within North Carolina, the only effect of the Act was stated to be a directive that such facilities be located downstream and not upstream from public drinking water intakes or, in the alternative, that their

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[32/] This was alleged to be particularly true where the substances were composed in part of leachate from hazardous waste storage facilities. Dr. Mossholder testified that GSX expected to receive one load a day of leachate from GSX's Pinewood facility [in Sumpter County] South Carolina (Tr. II-267).

[33/] Although various explanations for GSX not attempting to locate its facility below the City of Lumberton's drinking water intake have been advanced, the most cogent was probably offered by Mr. Al Adams (note 28, supra), who stated there was no major POTW below Lumberton into which GSX could discharge (Transcript, June 3, 1987, EPA Exh 5, Doc. No. 53 at 21).

discharges be substantially diluted by the receiving waters. The letter stated that it was possible to locate a HWTF discharging to any stream in the State having a 7Q10 flow greater than "zero" and that even though certain aqueous treatment facilities would be limited in size and therefore uneconomical in some places, there were substantial surface waters of the State having adequate 7Q10 flow to receive 500,000 gpd or more and be diluted by a factor of 1,000-to-1. [34/] Moreover, there were many locations in the State which were not upstream from public drinking water intakes and which were not limited in any way by the Act.

27. Senator Conder's letter argues that the effect of the Act was to encourage in North Carolina safety practices widely followed in other states which have located HWTFs downstream from public drinking water intakes, that commercial HWTFs were fundamentally different from industrial facilities handling hazardous wastes in that commercial HWTFs handled many times the number and quantity of hazardous wastes handled by industrial dischargers [35/] and that an increased variety of

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[34/] Such locations were identified as the Roanoke River from its mouth up to the dam at Roanoke Rapids, the Cape Fear River from its mouth up to the vicinity of Lock 3 and the Yadkin River from the confluence of the South Yadkin River with the Yadkin River to the point where the Yadkin enters South Carolina as the Pee Dee River.

[35/] Among attachments to the letter was Table II-A of the draft GSX permit, containing the list of compounds acceptable for treatment with known and suspected carcinogens identified.

substances carried with it an increased risk, because of unknown effects of interactions between the substances. Answering EPA's inquiry as to the health or environmental rationale for not considering concentration--the Act assertedly allowed for a release of a highly concentrated stream at a 1001 dilution factor and prohibited the release of a low concentration stream at a 999 dilution factor--the letter stated first, that the safe concentration level for many hazardous substances was not known, second, that the cumulative effect of toxic and hazardous chemicals at levels less than or equal to established standards at present are not known or understood and third, there is no guarantee that the concentration level will not exceed the amount allowed by the permit. Reasons given for the Act's failure to consider dilution occurring in a POTW included the fact wastes treated by the POTW may include hazardous wastes from sources other than a commercial HWTF, the fact that wastes from a commercial HWTF pass through a POTW does not in and of itself mean that the effluent from a commercial HWTF is any less harmful to public health or the environment and that whether other wastes in the POTW are useful as dilution depends on the nature of those wastes which may fluctuate. Moreover, it was pointed out that Congress and EPA had prevented indirect dischargers from having any advantage over direct dischargers, citing 40

CFR Part 433, Metal Finishing Point Source Category. [36/] The letter stated that 1,000-to-1 dilution has been recognized as an appropriate safety factor when only acute toxicity testing was to be performed on a substance prior to its release. It pointed out that Proposition 65, recently adopted in California, is more stringent than the North Carolina Act, because it prohibits the discharge of all chemicals which cause cancer into drinking water supplies and uses a 1/1000 safety factor for all substances which cause birth defects.

28. By letter, dated August 3, 1987 (EPA Exh 21), the Attorney General of North Carolina supplied the supplemental opinion on SB 114 which had been requested by the Regional Administrator on July 8, 1987. On June 4, 1987, the Attorney General had rendered an opinion to State Representative Daniel H. DeVane in which he concluded that SB 114 did have a basis in human health, namely protection of the public's drinking water supply and that the Act only restricts and does not prohibit, the treatment, destruction, or disposal of hazardous waste (EPA Exh 17). Applying the criteria in 40 CFR § 271.4(b), he concluded that SB 114 was not inconsistent with the EPA or federal program. The Attorney General enclosed a copy of his previous opinion and stated that his position on

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[36/] For example, 40 CFR § 433.12(a), provides for certification that no dumping of concentrated toxic organics has occurred since submission of the last DMR and for implementation of a toxic organic management plan by both direct and indirect dischargers.

the Act had not changed. Equating the requirement that an authorized state program be equivalent to the federal program solely with stringency, he asserted that the Act clearly did not undermine the federal program by failing to comply with its minimal requirements. Accordingly, he directed his attention to the question of consistency. He emphasized that, in accordance with 40 CFR § 271.4(b), a state law may be deemed inconsistent and potentially lead to withdrawal of its approved program only if it has no basis in human health or environmental protection and acts as a prohibition on the treatment, storage or disposal of hazardous waste in the state. He pointed out that North Carolina and other states have recognized the relationship between the 7Q10 flow criterion for the determination of waste load allocations for toxic substances and protection of aquatic and wildlife and/or human health and welfare. [37/] He echoed the arguments in the Senate Chamber letter (finding 27) relative to the number of toxic, carcinogenic, mutagenic and teratogenic substances permitted to be emitted by commercial HWTFs and the uncertainties associated with the identification and treatment of these substances. Stating that the Act's dilution factor was designed to compensate for the mentioned uncertainties concerning the discharges of commercial HWTFs and to provide

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[37/] See 15 NCAC § 02B.0206(a)(3), Summary and Recommendation Of The Hearing Officer, GSX Exh 15 at 5-30. Mr. Dorney testified that these regulations were not yet final (Tr. II-1698-99).

an adequate safety margin to protect human health and the environment, he opined that the dilution factor did have a basis in human health, i.e., protection of public drinking water supplies located downstream from a commercial HWTF. As to whether the Act prohibits the treatment, destruction or disposal of hazardous waste in the State, he asserted that properly permitted facilities may enter into any of these activities subject to the restriction that any wastewater discharge must be made to an accommodating surface water source as defined by the Act. In this respect, he contended that the Act operated as an additional siting factor for commercial HWTFs and was assertedly consistent with general siting criteria found within federal and state programs, including North Carolina. He therefore concluded that while the Act arguably restricted the treatment, storage or disposal of hazardous waste, it did not prohibit such activities.

29. Dr. Mossholder testified that SB 114 made the proposed GSX facility economically unfeasible (Tr. II-287-90). Elaborating on this testimony, he explained that SB 114 reduced the maximum allowable discharge to approximately 72,000 gallons a day and that this figure had to be reduced by components of the discharge other than incoming waste. The first of these subtractions was an average of about 7,200 gpd of potentially contaminated rain or stormwater, leaving a remainder of approximately 66,000 gpd. He assumed a one-to-one ratio of process to wastewater, saying that was reasonable, because as

the facilities reduce in size (quantity handled becomes smaller) the efficiency of water usage goes down. He pointed out that boilers and cooling towers had to be operated irrespective of the level of waste and that tanks, trucks and paved areas still had to be washed or rinsed. He indicated that, although a few tanks could be removed, the size of the plant couldn't be substantially reduced. He said that the size of the tanks couldn't be reduced, because each tank was designed to hold or treat one truckload of waste at a time. For these reasons, he concluded that SB 114 reduced the amount of revenue producing incoming waste to approximately 33,000 gpd. At this level of operation, anticipated revenues were estimated at approximately $4.2 million a year and Dr. Mossholder stated that expenses for staff, depreciation, maintenance and supplies would total almost $5.5 million a year, resulting in a substantial loss and no return of capital. This cost figure did not include expenses such as utilities, insurance, financing, taxes and outside testing costs. In other testimony, he said that capital costs were estimated at $24 million in 1987 dollars and that GSX expected to make a profit during phase one operations, absent SB 114, as incoming wastes of 100,000 gpd would produce approximately $12 million a year in revenue (Tr. II-345-47). While Dr. Mossholder acknowledged that SB 114 did not on its face prohibit GSX from locating elsewhere in the State, he

testified the Act created a perception that GSX might be blocked wherever it attempted to locate (Tr. II-404).

30. At the time SB 114 was passed, the GSX application was the only one pending with DHR for a commercial HWTF in North Carolina (Testimony of William Meyer, identified note 9, supra, Tr. II-932). Ms. Martie Groom, Industrial Waste and Laboratory Supervisor for the Water and Sewer Department of the City of Greensboro, however, described events leading to the abandonment of a proposed CWA pretreatment application by Ecoflo, Inc., a waste management firm. See finding 13. She was a member of a committee which reviewed Ecoflo's Part B RCRA permit application (Tr. II-2047-48). The application, which did not call for a discharge to either of the City's POTWs, was granted. A pretreatment application was not required, because Ecoflo's principal operation at the time was the blending of solvents which were apparently transported off-site for incineration or other disposition (Tr. II-2051). In October of 1986, Ecoflo applied for a pretreatment permit from the City, proposing to discharge approximately 100,000 gpd (Tr. II-2048-49; Ecoflo letter, dated January 20, 1987, NC Exh 60). After it was determined that this would require a major modification to Ecoflo's RCRA permit as well as a modification of the City's NPDES permit, the Ecoflo application was withdrawn and never resubmitted (Tr. II-2051, 2057, 2065; NC Exhs 61 and 62). The City was concerned about potential contamination of downstream drinking water sources

and about testing and other costs associated with the receipt of chemicals not previously handled (Tr. II-2052-53, 2058-59). In a letter, dated July 28, 1988, signed by Mr. Banks Clark, Vice President of Operations, Ecoflo stated, inter alia, that it was actively pursuing a POTW discharge permit with the City of Greensboro until the passage of SB 114 (GSX Exh 12). He pointed out that SB 114 required a treated aqueous discharge from a commercial waste treatment facility to be diluted a 1,000 times by the waterway into which the receiving POTW discharges. The 7Q10 flow for the South Buffalo River was 2.3 cfs or 10,400,000 gallons a week. Accordingly, SB 114 limited Ecoflo to 10,400 gallons a week, an amount Mr. Banks stated was too small to be commercially viable.

31. North Carolina's principal technical basis for defending SB 114 is contained in the so-called "Klimek memo" (NC Exh 6). The memorandum, dated July 21, 1987, addressed to Bill Meyer of DHR (identified supra at note 9) was written by John Dorney, Division of Environmental Management (DEM, Water Quality Planning Branch, NR&CD (Tr. II-1541) and purports to answer questions posed in the EPA letter, dated July 8, 1987 (finding 24). A copy of the memorandum was forwarded to the Regional Administrator by a letter from the Office of the Attorney General, dated August 12, 1987. [38/] The memorandum

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[38/] EPA Exh 23. Although Mr. Dorney's explanation for the handwritten notation "Not Officially Sent" in the upper right hand corner of the first page of the memorandum included the fact that the original had been sent to DHR without a signature or an initial (continued...)

states that the law (SB 114) is designed to provide additional protection for human health, especially for chronic effects which may be evident after long-term exposure to low levels of toxicants. Mr. Dorney testified and the memorandum asserts that the State has adequate programs to deal with a commercial HWTF insofar as environmental protection is concerned. [39] With respect to human health, however, the memorandum notes that only 20 DWS have been adopted by DHR and that the State presently has no WQS to protect human health through fish consumption. Under cross-examination, Mr. Dorney testified that the latter statement was true at the time the memorandum was written, but that, where data are available, a procedure had been developed to take rates of accumulation in fish and consumption into account (Tr. II-1656). Stating that EPA and state agencies are working on additional DWS, which are only beginning to address the wide variety of chemicals known to

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[38] (...continued)
and had not been reviewed by the Deputy Director of the Division, the most likely explanation is that it simply did not represent the views of the Department (Tr. II-1543-44, 1548-49, 1685-86). In a letter to the Acting Regional Administrator, dated August 18, 1987, S. Thomas Rhodes, Secretary of NR&CD, stated, inter alia, that, like Secretary Flaherty, he had concluded that SB 114 was an arbitrary and capricious intrusion into the orderly scientific regulatory process and was without technical judgment and overall beneficial effects (GSX Exh 14).

[39] These were listed as: 1) existing WQS (narrative and numerical), 2) procedures to calculate additional WQS, 3) an extensive effluent bioassay program (acute and chronic) with provisions for regulatory enforcement and 4) in-stream environmental monitoring.

come from HWTFs, the memo points out that there is no human health bioassay which is equivalent to the aquatic life bioassay (Id. at 1; Dorney, Tr. II-1547). If such a test were available, it would assertedly answer concerns over synergistic [and] or additive effects of low levels of organic compounds each of which meets its relevant water quality standard. [40/] While the scientific community may eventually develop tests to enable evaluation of the impact of long-term exposure to low levels of organic compounds via drinking water, the memorandum states that such tests do not presently exist.

32. In February of 1986, Mr. Dorney traveled to Albany and Buffalo, New York to consult with New York State officials and the staff of two HWTFs (SCA & CECOS) in and near Niagara Falls, New York (Tr. II-1471-72; Report On Site Visits, NC Exh 51). He reported that the CECOS facility, which has a design very similar to the proposed GSX facility, batch discharges about to 250,000 to 400,000 gpd to the Niagara Falls POTW after chemical/physical treatment, biological treatment (sequential batch reactors) and activated carbon. Batches are chemically tested by CECOS prior to discharge, which is about every other day, to the Niagara Falls POTW. Unlike most

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[40/] Additive, as the name implies, is simply the arithmetical sum of risks associated with exposure to multiple pollutants at the same time (Tr. II-83-84). Synergistic, on the other hand, means that the risk of exposure to a combination of two or more chemicals is greater than the additive effects of such exposure.

POTWs, the Niagara Falls POTW is an activated carbon plant, not having biological treatment capability (Tr. II-1490-91; White, Tr. I-1206). The average flow of the Niagara River at that point is about 60,000 cfs, resulting in a dilution [apparently of the CECOS flow] of approximately 520,000-to-1 (Tr. II-1477-78). This is to be contrasted with a dilution of about 144-to-1 at the proposed GSX facility (Tr. II-1641). In other testimony, Mr. Dorney stated that transfer of the CECOS facility to North Carolina (discharge of approximately 260,000 gpd) would, to meet WQS, require a river flow of approximately 440 cfs or roughly four times the 110 cfs of the Lumber River at Laurinburg (Tr. II-1495-96, 1529, 1553-54). He explained that using CECOS discharge data, the Lumber River could safely assimilate and meet WQS for a HWTF discharge not exceeding 160,000 gpd (Tr. II-1496). Regarding CECOS effluent as representative, Mr. Dorney concluded that it would be advisable to develop water quality guidance for 23 mostly organic chemicals [which might be in the GSX discharge] (NC Exh 51 at 4). He testified that he was working on standards for aluminum and formaldehyde at the time and was apparently able to develop WQS for most of the chemicals on the list (Tr. II-1584-85, 1503-04, 1547). He stated that such standards included drinking water or human health protection. The "Klimek memo," however, cites formaldehyde as a chemical for which no acceptable measurement technique exists and states, for that reason, a human health based standard for

formaldehyde would not be enforceable, if it were developed. Isophorone, an industrial solvent, is cited in the memo as an example of the most common organic chemical in the CECOS discharge, while at the same time, little is known about its mammalian toxicity (Id. at 2). SB 114 assertedly provides some protection in instances of poorly understood toxicity, additive or synergistic behavior of chemicals, and uncertain chemical measurement, as the present state of knowledge of the effects of long-term, low level exposure is poor.

33. The "Klimek memo" argues that SB 114 is consistent with other N.C. State programs for the protection of surface water supplies (Id. at 2; Dorney, Tr. II-1547-48). It points out that essentially all discharges in surface water supply watersheds classified as WS-1 are prohibited as are direct or indirect industrial discharges to WS-II watersheds (Dorney, Tr. II-1657-58). In order to obtain these higher classification, local governments are required to adopt ordinances to control land use and minimize nonpoint source pollutant impacts in these watersheds. As to watersheds having point sources, there are provisions for "consideration of the relative proximity, quantity, composition, natural dilution and diminution of potential sources of pollution to determine [assure] that the risks posed by all pollutants are adequately considered" (15 NCAC § 02B.0104(d), note 37 supra at S-18).

34. Attached to the "Klimek memo" is a map showing acceptable locations for HWTFs complying with SB 114. The map, various versions of which are in the record (GSX Exh 8; EPA Exh 21; NC Exh 54), was prepared by Mr. Dorney (Tr. II-1550-53). As might be expected, the map (shaded area) indicates that rivers of sufficient flow to be acceptable locations for HWTFs proposing to discharge 500,000 gpd or more are almost entirely in the eastern part of the State (east of Highway I-95) in the Coastal Plain area. The map as well as the narrative in the Klimek memo explaining the same shows acceptable locations for HWTFs having flows of less than 500,000 gpd and less than 260,000 gpd. Mr. Dorney disagreed with EPA's contention (see Attachment B, Issue No. 7) that the dilution provision of SB 114 would apply to [and thus eliminate] 85% of the potential sites from HWTFs in North Carolina (Tr. II-1560-61). He asserted that EPA's calculations were based on the assumption any river in the State had sufficient flow to site a HWTF. He said this assumption was clearly not true as most of the rivers, especially at the higher elevations, did not have enough flow to assimilate the waste in the first place. Maps prepared by Mr. Dorney are intended to show actual river miles in the State eliminated by SB 114 from consideration for siting of 160,000 gpd, 250,000 gpd and 500,000 gpd HWTFs (NC Exh 54). These maps were prepared using existing WQS on the basis that CECOS effluent was to be discharged and upon the assumption that there were no other in-stream concentrations

or sources for these chemicals. [41] A summary compiled by Mr. Dorney (NC Exh 54) reflects that there are 36,986.1 river miles in the State, that 919.9 miles were available for siting a commercial HWTF of 160,000 gpd capacity prior to SB 114 or 2.5 percent and that after SB 114 804.4 miles were available for siting such a facility or 2.2 percent, a difference of 0.3 percent (Tr. II-1591). Likewise, for a commercial HWTF of 250,000 gpd capacity, 691.7 river miles or 1.9 percent of the total were assertedly available for siting prior to SB 114 and, after SB 114, 656.5 river miles or 1.8 percent were available, a difference of 0.1 percent. For a facility of 500,000 gpd capacity, 485.2 miles were allegedly available prior to SB 114 or 1.3 percent, while after SB 114 333.3 river miles were available for siting a HWTF of that capacity, a difference of approximately 152 miles or 0.4 percent. Mr. Dorney testified that use of the latest WQS would show that a smaller number of river miles were available for siting a HWTF (Tr. II-1586).

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[41] Tr. II-1584, 1588. These maps are simply variations of the basic Klimek memo map. Mr. Dorney, however, recited reasons why lower portions of rivers in the shaded area of the map were not available for siting a HWTF irrespective of SB 114. He pointed out that there were no 7Q10 flows in estuarine areas and that there were severe water quality problems in the lower Neuse, Tar-Pamlico and Cape Fear Rivers (Tr. II-1585). It should also be noted that application of the Hazardous Waste Treatment Commission guideline of a five-foot minimum groundwater table would also eliminate much of the Coastal Plain area from consideration for the siting of a HWTF (supra at note 14). Mr. Dorney estimated that the water table in the Laurinburg-Maxton area at three or four feet (Tr. II-1482).

35. Mr. Dorney participated in developing the list of chemicals in Table V-A of the preliminary draft permit (findings 6 and 7). He testified that the list was developed from existing water quality and drinking water standards developed or proposed by EPA and took into account data he collected from New York as to the presence of organic chemicals in HWTF discharges and chemicals GSX proposed to release (Tr. II-1516). He noted, however, that there were 11 compounds on the list which presently have lower drinking water standards than in 1986 (Tr. II-1521-22). He cited as an example benzene for which the DWS at the Lumberton intake in Table V-A of the preliminary draft permit was 1.3 ug/l, while the latest revision was 1.2 ug/l. [42/] Another example cited by Mr. Dorney was hexachlorobutadiene for which the standard in Table V-A was 4.52 ug/l while that in the latest revision was 0.44 nanograms (ng/l). [43/] He noted that the standards for two pesticides, endosulfan and lindane, in the preliminary draft were 70 ug/l and 4 ug/l, respectively, and that the revised

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[42/] Mr. Dorney apparently rounded this figure off as the maximum permissible concentration for benzene is 1.19 ug/l (15 NCAC § 02B.0211(e)(3)(F)(ii), GSX Exh 15 at S-44 and Table at S-54). Benzene is a carcinogen and 1.19 ug/l is the maximum permissible level to protect human health through water and fish tissue consumption in Class WS-III waters.

[43/] Tr. II-1523. In this he was mistaken as the most recent revision shows .445 ug/l as the concentration standard for hexachlorobutadiene (15 NCAC § 02B.0211(c)(3)(G)(ii), GSX Exh 15 at S-40 and Table at S-54). Hexachlorobutadiene is also a carcinogen.

standards for these chemicals were .05 ug/l and .01 ug/l, respectively. [44/] His conclusion was that these and other revisions to WQS would require 50 times more dilution or 50 times less volume of discharge independent of SB 114 were the CECOS facility to be transferred to North Carolina (Tr. II-1525-26, 1531). In terms of effluent flow, he testified the new WQS would limit the proposed GSX discharge to 3,200 gpd. This figure was based on discharges of heptachlor, and apparently of nickel, being the same as the average CECOS discharge (Tr. II-1672-74).

36. A basic premise of the Klimek memo and of North Carolina's defense of SB 114 is that effluent from HWTFs is fundamentally or distinctively different from that of industrial dischargers or POTWs. Mr. Dorney compared discharges from the CECOS HWTF in Buffalo, New York with discharges from POTWs in Greensboro, Research Triangle Park (RTP), Durham and Farrington, North Carolina (Tr. II-1562-63; NC Exh 6 at 5). He concluded that effluent from the mentioned POTWs did not have anywhere near

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[44/] Tr. II-1523-24, 1528-29. These are aquatic life standards designed to protect aquatic life applicable to all fresh surface waters (15 NCAC § 02B.0211(b)(3)(L)(xii), GSX Exh 15 at S-39 and Table at S-54). These concentration levels are considered to protect human health from non-carcinogens through water consumption (15 NCAC § 02B.0208(a)(2)(A)(ii)). Because WQS to protect aquatic life for all noncarcinogenic toxic substances for which standards have been considered are more stringent than numerical standards to protect human health from such substances through consumption of fish, specific numerical standards to protect human health for such substances from fish consumption were not included in the Rule.

the number nor the concentration of compounds as the CECOS effluent. He pointed out that nickel in the CECOS effluent averaged 2.47 mg/l (having a range of from 1.22 mg/l to 5.38 mg/l) while the Durham POTW had less than 50 ug/l nickel. Moreover, CECOS averaged 109.2 ug/l chloroform, while 12 ug/l were detected in one sample from the Durham-RTP POTW (Tr. II-1564; NC Exh 6 at 4). Annual pollutant analysis results extracted from DEM files as of May 29, 1989, show pollutants detected in effluent from 12 POTWs and three industrial facilities which are direct dischargers (Tr. II-1568-70; 1664-65; NC Exh 53). The three industrial direct dischargers, two of which were textile mills, averaged 1.7 volatiles, 0.3 acid extractables, 1.7 base neutrals, no pesticides or herbicides and 7 metals. Mr. Dorney concluded that unlike CECOS, effluent from North Carolina industry and POTWs did not contain a lot of organics (Tr. II-1569-70; Klimek memo at 4). He expected there would be organic compounds, volatile organics and metals in the GSX discharge (Tr. II-1505-06). He acknowledged, however, that the CECOS data, which indicated the detection of 49 chemicals, involved at least 12 samples collected during the period December 1984 and ending November 1985, while the data from NC POTWs (Klimek memo at 5) were based on three samples (GC-MS scans) (June '83, '84 and '85) from RTP, two each from Greensboro and Farrington and only one from Durham (Tr. II-1664). The single May 1984 sample from the Durham POTW resulted in the detection of 16 chemicals.

Dr. Mossholder testified that comparing CECOS effluent with effluent from NC POTWs was not a fair comparison, because it ignored additional treatment occurring in the POTW to which CECOS discharged (Tr. II-286). He indicated that a more appropriate comparison would be of effluent from the POTWs. Dr. White agreed with Dr. Mossholder, because he would expect treatment and/or destruction or removal and a reduced concentration of many pollutants across a POTW (Tr. I-1259, 60).

37. One of the questions concerning SB 114 asked in the Regional Administrator's July 8 letter to Secretary Flaherty was the public health and environmental rationale for not considering the dilution and treatment that occurs in a POTW. Mr. Dorney answered that dilution in a POTW was minor and wouldn't make any significant difference in a receiving stream complying with the 1000-to-1 dilution provision (Tr. II-1574-75; Klimek memo at 6-7). He pointed out that major POTWs in North Carolina have an average design flow of less than 10 mgd with a maximum of 40 mgd. [45/] Regarding treatment, Mr. Dorney acknowledged that SB 114 did not take into account treatment by the POTW. He stated, however, that this was a conservative position identical with the position adopted by GSX, the State

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[45/] The maximum design flow of the LMAC is one million gpd, about half of which is currently being utilized. Ninety-two percent of discharges to the LMAC consists of industrial waste (Noland, identified finding 43, infra, Tr. II-1131-32).

and LMAC with respect to numerical limits during permit negotiations (Tr. II-1575). He testified that because they didn't know how much treatment [removal] would occur in the POTW, they agreed to assume there would be none to be on the safe side. He cited data which reflected that POTW degradation rates varied widely depending on the compound and asserted that to make some gross generalization covering the percent of removal would be inappropriate (Id.; Klimek memo at 7). Another reason, cited by Mr. Dorney, for not considering removal in a POTW of effluent from a HWTF was the likelihood of an upset of a POTW. [46/] He stated that this was especially true, because POTWs are generally designed for treatment of BOD and bacteria rather than the removal of organics. He noted that in such an event (upset or more accurately "interference") it was likely that HWTF effluent would pass through the POTW essentially untreated and given

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[46/] "Interference," "upset" and "pass through" are terms of art regarding the operation of POTWs. An "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 (40 CFR § 403.16(a)). "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 the POTW's NPDES permit * * *." (40 CFR § 403(i)). "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)." (40 CFR § 403.3(n)).

the unique nature of these effluents relative to organic compounds, could pose a direct threat to a downstream drinking water source. He testified that the 1000-to-1 ratio would at least assure a fair amount of mixing downstream before the intake was reached by a slug of wastewater.

38. In November of 1988, EPA issued proposed amendments to the General Pretreatment Regulations for Existing and New Sources, 40 CFR Part 403 (53 Fed. Reg. 47632, November 23, 1988; NC Exh 8). The proposed amendments were designed to implement the Domestic Sewage Study required by RCRA § 3018(a), 42 U.S.C. § 6939 and §§ 307(b) and 402(b)8 of the CWA, 33 U.S.C. §§ 1317(b) and 1342(b)(8). In order to be a hazardous waste under RCRA, a waste must first meet the definition of solid waste in RCRA § 1004(27) (42 U.S.C. § 6903(27)). The cited section defines solid waste as not including, inter alia, "solid or dissolved material in domestic sewage." [47/] This, of

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[47/] The regulation (40 CFR § 261.4(a)(1)) appears to broaden this definition:

> (a) Materials which are not solid wastes. The following materials are not solid wastes for the purpose of this part:
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> (1)(i) Domestic sewage; and
>
> (ii) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment. "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.
>
> (2) Industrial wastewater discharges that are point source discharges subject to regulation under section 402 of the Clean Water Act, as amended.

(continued...)

course, means that such material is not a hazardous waste regulated under RCRA. [48/] While the "Domestic Sewage Study" concluded that the domestic sewage exclusion should be retained, it did so with recommendations and concerns which are pertinent here. Even if the proposed regulatory changes were adopted, the Agency noted that further measures were necessary in some cases to give POTWs adequate control of wastes discharged to sewers (53 Fed. Reg. 47644). This was attributed primarily to two causes: (1) "(t)he inherent limitations of categorical standards and local limits developed to prevent violations of NPDES permits issued to POTWs and (2) the likely increase in volume of hazardous and toxic wastes discharged to POTWs" (Id.). The Study concluded, for example, that even after full implementation of pretreatment standards, large amounts of hazardous, toxic and carcinogenic chemicals are discharged to POTWs. The hazardous waste treatment industry was cited as an example of an expanding industry whose wastewaters were not specifically

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[47/](...continued)

* * * *.

[48/] Dr. White testified that the proposed GSX facility was designed to take advantage of the domestic sewage exclusion (Tr. I-1288-89). For authority that the exclusion may not be as broad as some may have thought, however, see Comite pro Rescate de la Salud v. PRASA, 888 F.2d 180 (1st Cir. 1989) (domestic sewage exclusion limited to residential sanitary wastes and did not include industrial waste mixed with sanitary wastes from industry).

addressed by categorical standards and it was noted that almost all RCRA characteristic and listed wastes were potentially present in discharges from these facilities (Id.).

39. The Domestic Sewage Study referred to what were described as "massive loadings" of hazardous wastes and hazardous constituents to POTWs and stated that some hazardous constituents were toxic in very low amounts, giving as examples cyanide (chronically toxic to freshwater organisms at concentrations above 5.2 ug/l), benzene (chronically toxic to marine aquatic organisms in concentrations above 0.7 mg/l) and silver (acutely toxic to freshwater organisms in concentrations above 4.1 ug/l). The Study employed modeling techniques to determine potential in-stream concentrations of hazardous constituents discharged to POTWs, which revealed that some projected loadings of hazardous constituents exceeded water quality criteria even after imposition of categorical standards. Existing POTW bioassay results revealed that a significant number of POTWs had toxic discharges. It was therefore concluded that current categorical standards cannot by themselves resolve water quality concerns and that other hazardous constituents may also be passing through treatment systems and creating water quality problems (53 Fed. Reg. 47644).

40. The current pretreatment control methods are categorical standards and local limits (53 Fed. Reg. 47645). Regarding categorical standards, the Agency noted that it must count and

examine exhaustive data on the industries to be covered, pollutants discharged and treatment systems used. It further noted that developing these standards is a lengthy and expensive process, often taking many years (Id.). Regarding local limits, the Agency stated that local limits must be developed as needed to prevent interference with POTW operations and pass through of pollutants to receiving waters. It pointed out that POTWs have generally developed adequate local limits to control interference from and pass through of pollutants which were of most concern when the pretreatment program commenced, i.e., metals and some priority pollutants. The mentioned notice stated, however, that these limits were sometimes ineffective in dealing with loadings of hazardous constituents, because 1), calculating local limits for organics can be technically difficult, if numeric criteria for these pollutants are not contained in the NPDES permit for the POTW [49/] and 2), even when pass through is demonstrated, the source of the toxicity can be difficult to locate, if the pollutant concentration in a POTW's influent is highly variable and the matrix of pollutants contained in the influent is highly complex. As to 2), the aqueous waste treatment and disposal industry was stated to be of particular concern (53 Fed. Reg. 47645). Data recently collected by the

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[49/] EPA stated that without such limits it was not possible to establish "pass through" under the current definition of that term in 40 CFR § 403.3(n) (note 47, supra).

Agency reportedly indicate that wastes accepted by commercial waste treaters (CWTs or HWTFs) contain significant amounts of hazardous constituents (particularly organics) that pass through the HWTF, thus receiving inadequate treatment before being discharged to POTWs. The poor treatment received by organics is assertedly reflected in effluent levels of BOD, TOC and COD. While advanced treatment systems at some HWTFs were more effective in removing organic compounds, it was noted that high effluent concentrations of organics were common even with advanced treatment such as carbon adsorption (Id.). Tc address these and other problems associated with discharges from HWTFs to POTWs, EPA proposed three regulatory options, i.e., combined wastestream formula, [59/] categorical standards and technology-based local limits (53 Fed. Reg. 47645-46). The Agency noted that development of categorical standards would probably take several years and that technology-based local limits could serve as interim or permanent measures and could also be used to reduce loadings of certain pollutants which were of local significance but were not nationally regulated.

[59/] The formula is a mathematical method used to determine effluent limits for CWTs receiving contributions from multiple wastestreams (both categorical and noncategorical) (53 Fed. Reg. 47646). The Agency suggested that the formula had more flexibility than some commenters, who opposed application of the formula to HWTFs, believed, in that where wastes introduced to the HWTF fluctuate, alternative limitations could be developed corresponding to different waste configurations and would be implemented depending on which configuration currently prevailed.

41. In comments on EPA's proposed rule making referred to in findings 38 and 39, the hazardous waste treatment industry supported the development of categorical standards which specifically addressed the discharges of HWTFs (EPI, Exh 1). For example, the National Solid Waste Management Association (NSWMA) endorsed EPA's statement that "CWTs are difficult to regulate through traditional local limits * * *." As to the combined wastestream formula, NSWMA noted the difficulty of applying the formula to a frequently variable matrix of incoming wastes and questioned the feasibility of predicting input scenarios so as to make practical EPA's suggestion that several limitations be calculated based on different waste configurations. HWTC supported EPA's recommendation to retain the domestic sewage exclusion, the proposal to establish categorical pretreatment standards for the hazardous waste treatment industry [51/] and, as an interim measure, the development by POTWs, with EPA's guidance, of local pretreatment limits (Richard Fortuna, Exec. Dir. of HWTC, Tr. I-977-81; EPI Exh 1 at 3-4). HWTC opposed, as completely unworkable, the proposal to apply other industry-specific

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51/ HWTC argued, however, that § 307(b)(1) of the CWA authorized EPA to require pretreatment only for those pollutants which were determined not to be susceptible to treatment by POTWs or which would interfere with the operation of such treatment works (EPI Exh 1 at 6). HWTC asserted that in the absence of data establishing such interference, pass through or cause of a violation of the POTW's permit, there was no authority or need for a mandatory requirement that all POTWs develop local limits.

categorical standards to HWTFs through the combined wastestream formula. Contrary to EPA's assumption, HWTC asserted that most HWTFs do not have a consistent set of customers providing predictable, stable wastestreams from month-to-month or even year-to-year (Id. at 8, Tr. I-983-84). Rather, the sources and chemical composition of influent wastestreams to HWTFs will vary significantly over any period of time. As an example, one of its members reportedly received wastestreams from almost 200 different customers during a recent five-week period. Moreover, HWTC asserted that any attempt to calculate an annual or semi-annual set of limits would be futile, because influent wastes can change dramatically in any month.

42. In other comments, HWTC stated that CWT facilities are unique and entirely unlike any of the industrial categories for which categorical pretreatment standards exist (Id. at 21). Firstly, CWTs do not themselves employ industrial processes which generate the wastes treated and secondly, unlike those industries whose wastes do not change significantly in content from day-to-day, there is a tremendous variety in the types of wastestreams which are received by a CWT from day-to-day and month-to-month. Although Mr. Fortuna emphasized that these comments related to the difficulty of applying the combined wastestream formula to HWTFs rather than the difficulty of developing categorical standards for HWTFs (Tr. I-998-99), Mr. Bryan Dixon, identified finding 55, infra,

testified that categorical pretreatment standards have not been developed for commercial HWTFs because of practical difficulties (Tr. II-1803). This testimony is seemingly confirmed by EPA's assertion that development of categorical standards for HWTFs would probably take several years. HWTC further stated that surveys of customers by HWTC members have confirmed that many customers do not or cannot provide in advance detailed information as to the constituents, and the concentrations thereof in their wastestreams (EPI Exh 1 at 23). According to HWTC, most customers of CWTs could not be relied upon to provide accurate and reliable information as to particular industrial processes generating each wastestream and for which a categorical standard would be applicable. Brown-Ferris Industries (BFI), the Chemical Manufacturer's Association (CMA), Tricil Environmental Services, Inc. (TESI), a firm treating both hazardous and nonhazardous liquid industrial wastes and Waste Management Inc. (WMI), among others, submitted similar comments as to the variability and unpredictability of influent to HWTFs (EPI Exh 1 at 32-76).

43. Every witness who was familiar with the operation of the proposed GSX facility or who participated in its proposed permitting testified that it was unique. For example, Dr. Mossholder testified that there was no other plant like GSX, apparently referring to the number of treatment processes and the number of chemicals it would treat or handle (Tr. II-294, -394, -649). Dr. White stated he had never seen a

pretreatment permit detailed to this extent (Tr. I-1328). Mr. Marlar (identified finding 6) referring to GSX, said it was the only situation like it he had seen and that he had " * * not seen a permit with that many constituents in it ever" (Tr. I-501). John Dickenson, head of the North Carolina/South Carolina RCRA permitting unit in EPA, Region IV, testified that he was unfamiliar with any industrial facility [potentially] having several hundred chemicals in its wastestream (Tr. I-295). Mr. Dorney said the GSX project was unusual, because commercial hazardous waste treatment facilities were a new industry in the State and, because of the number of chemicals it proposed to treat or handle (Tr. II-1469-1566, -1663). He defended as "rational" the fact that SB 114 applied only to commercial HWTFs, because the effluent was different (Tr. II-1562-63). Mr. Meyer stated that permitting a facility [like GSX] had not previously been done in North Carolina (Tr. II-924). Dr. Frank Gostomski testified that he had not been called upon to provide technical assistance to a more complicated application than the GSX

permit application. [52/] Mr. Marion J. Noland, a supervisor in the Fayetteville Regional Office of the Division of Environmental Management, DNR&CD, participated in an initial review of the GSX permit application (Tr. II-1090-91). He stated that typically in an industrial discharge there were perhaps a few dozen compounds which would likely be present in the discharge on a more or less regular basis. (Tr. II-1108-09). Regarding the GSX facility, however, he noted that there were literally hundreds of compounds that were likely to be, or could be, in the discharge and that there was no real continuity or predictability in the discharge at any particular time.

44. Because validated epidemiological data as to human health effects are not available, the human health portion of water quality criteria documents are, in most cases, based on laboratory animal studies (Tr. II-59). In applying numbers so developed to humans for noncarcinogens, the results are divided by uncertainty factors in multiples of ten to allow for a margin of safety or error. For example, the first

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[52/] Tr. II-56, 102. Dr. Gostomski is Chief of the Water Quality Criteria Section, Office of Water Regulations and Standards, EPA Headquarters (Tr. II-20). In November of 1986, he attended a meeting in EPA, Region IV at which the GSX preliminary draft permit was reviewed. Subsequent to this meeting, he sent a memorandum to EPA, Region IV, stating, inter alia, "(m)y overall reaction to the draft permit is that the facility should not be located at this site." (NC Exh 7). This memorandum was available to the North Carolina General Assembly and was repeatedly cited by the sponsors of SB 114.

factor of ten may be applied to account for uncertainties in applying animal data to humans and the second factor of ten, resulting in an uncertainty factor of 100, may be applied to account for sensitivity or variability among individuals in the human population. A third factor of ten, resulting in a safety or uncertainty factor of 1,000, may be applied where the data base on a particular chemical is inadequate. [53/] For carcinogens there are no accepted safe levels of exposure and any exposure is presumed to result in some incremental risk of cancer. While water quality criteria documents are based solely on science, WQS are developed taking into consideration technology, i.e., the ability to detect and measure specific levels of a pollutants, and the economic and social impacts of imposing a regulatory level at a criteria recommendation (Gostomski, Tr. II-53-54). Effluent limits, on the other hand, are established, by determining existing pollutant concentrations in the receiving stream (up-stream of the point source under consideration) and setting maximum concentrations of pollutants expected to be in the discharge in order to comply with WSQ (Gostomski, Tr. II-172-73). These

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53/ Respondents argue that the 1,000-to-1 dilution required by SB 114 is analogous to the uncertainty or safety factors described in the text. They also point out that in proposed amendments to the pretreatment regulations (findings 38 and 39), EPA indicated that the level of dilution was an appropriate measure for determining whether toxicity testing was required and, if so, the level of such testing (53 Fed. Reg. 47642-43).

determinations take into account stream flow or dilution in the receiving stream. [54/]

45. Explaining his reasons for the comment to the effect that the proposed GSX facility should not be located above the Lumberton drinking water intake (memorandum, supra at note 52), Dr. Gostomski stated that there were potentially a large number of chemicals in the discharge having a potential for adverse effects on human health and the environment (Tr. II-34). Moreover, he pointed out that his office was not in a position to recommend with any degree of certainty what protective levels for these chemicals would be and that there were great difficulties in detecting the chemicals at levels which might be recommended as protective. He described as a "rule of thumb" the fact that as dilution increases the in-place concentration of pollutants is lowered and the degree of protection is increased. He testified that while dilution was not an approved treatment, it was nevertheless factored into a decision as to a specific loading or concentration limit (Tr. II-25-29). He explained that dilution was simply one of a number of site-specific factors in determining the risk associated with a given discharge to surface water and that it was the in-stream concentration to which water quality

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[54/] Tr. II-173, -189. Accord, Douglas S. Finan, an environmental supervisor in charge of the N.C. pretreatment program, Division of Environmental Management, NR&CD (Tr. II-1237).

criteria documents issued by his office applied. [55] Dr. Gostomski described the 1,000-to-1 dilution factor in SB 114 as arbitrary, indicating that in some cases it might be more protective than necessary to and in other cases it might not be enough (Tr. II-27).

46. In other testimony, Dr. Gostomski explained that the 1,000-to-1 dilution in SB 114 was arbitrary in the sense that it was not coupled with an end-point of protection sought to be achieved. [56] Dr. Gostomski reiterated that his real concern [with the proposed GSX facility] was the number of chemicals for which there was an inadequate data base or an inability to measure (Tr. II-174). He testified that there was no way of determining with complete certainty that none of the prohibited chemicals listed in the GSX draft permit were in the wastestream (Tr. II-196a). He opined that if the effect of the 1,000-to-1 dilution requirement were simply to require

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[55] Water quality criteria documents are essentially scientific and technical reviews of the effects of specific chemicals on aquatic life and human health and are developed based on toxicological end points. These documents are used by the states in developing, and EPA in approving, water quality standards. Dr. Gostomski's office has issued criteria documents for 109 specific chemicals (Tr. II-59).

[56] Tr. II-120. Mr. Dorney testified that the requirement for whole effluent bioassay tests would essentially eliminate the likelihood of a discharger concentrating effluent at 1,001-to-1 in order to circumvent SB 114 (Tr. II-1573). Dr. White agreed that this was not a loophole in the Act and it was unlikely that a number of small HWTFs could be sited resulting in the same quantity of pollutants in the river (Tr. I-1325-27).

the GSX facility to be sited on a larger river with no change in ambient pollutant concentrations, the dilution does not provide any additional protection to human health or the environment (Tr. II-192-93). He indicated, however, that this might not be true in cases of violation of permit or effluent limits (Tr. II-200-02).

47. Dr. Ronald Landy, a Public Health Service Officer, a doctor of veterinary medicine, and Regional Expert Toxicologist for EPA, Region IV, echoed Dr. Gostomski as the adequacy of a 1,000-to-1 dilution factor in protecting human health and the environment. He testified that in some cases such a dilution factor might be protective of human health and the environment, in other cases it might not be protective and in still other cases, it might be overly protective and costly with limited benefit to human health and the environment (Tr. I-694). He acknowledged, however, that if toxic concentrations were reaching health-based numbers, additional dilution would be a benefit to human health and the environment (Tr. I-744-45). In performing risk assessment, Dr. Landy explained that the assessment was normally limited to "indicator chemicals," which would generally range from 10-to-30 chemicals (Tr. I-747). With regard to a source having the potential for as many chemicals as the GSX discharge, he stated that the possibility of additional contaminants or breakdown products being formed was a concern (Tr. I-749). He referred in particular to chlorination and the possibility

or likelihood that high risk byproducts such as trihalomethanes, chlorinated camphenes and other chlorinated hydrocarbons would be created. He wouldn't attempt to quantitate the likelihood or risk of such products being formed (Tr. I-751). He indicated that with the potential number of contaminants in the GSX discharge, he would probably refer the risk assessment to [EPA's R&D Laboratory] in Cincinnati which has multi-disciplinary skills and greater modeling and computer capabilities (Tr. I-752-53).

48. Mr. Dollof F. Bishop, a chemical engineer and an employee of EPA's Risk Reduction Laboratory in Cincinnati, Ohio, is engaged in the management of a toxics treatability and reduction evaluation program (Tr. I-567-68). The program relates to toxic treatability and reduction in municipal wastewater plants. He described treatment systems employed by POTWs as consisting of primary sedimentation followed by varieties of biological wastewater treatment such as trickling filters, activated sludge systems and extended aeration facilities. He indicated that studies with pilot plants utilizing activated sludge had demonstrated appreciable reductions in toxicity (Tr. I-569-70). While such treatment systems are vulnerable to upsets and interferences, he stated that experiments involving spiking complex cocktails of up to 25 or more compounds under relatively controlled conditions have not resulted in substantial upsets of biological treatment systems. He pointed out, however, that heavy sludge

loadings or uncontrolled releases of such materials into the activated sludge process could result in an upset. In such a case, the bacterial population would either be inhibited or destroyed and the functioning of the POTW impaired. This could result in loadings of suspended solids, BOD and nutrients sufficient to alter the quality of the receiving stream. Mr. Bishop testified that while a 1,000-to-1 dilution factor would obviously help to minimize the impact of heavy pollutant loads on the receiving stream, whether there were adverse impacts on water quality would depend on the nature of the toxicant (Tr. I-571). He stated that dilution by sewage entering a POTW helps to mitigate the impact of any toxicants in the industrial discharge. He explained that biological processes can adapt to many toxicants which are diluted below the inhibition level entering the treatment facility and that this was a site specific determination depending upon characteristics at a given POTW (Tr. I-572).

49. In further testimony, Mr. Bishop pointed out that substantial removal of specific toxicants by central wastewater treatment facilities has been demonstrated. As examples, typical removal rates for volatile organics were in excess of 90 percent, removal rates for metals ranged from 20 percent to 90 percent depending on the metal and for semi-volatiles it depended upon the nature of the chemical (Tr. I-576-78). Although Mr. Bishop hadn't looked at TSDFs (HWTFs) specifically, he indicated that such a facility would be

expected to have more waste than is normally found in an individual industrial discharge, because it represents discharges from multiple industrial sources (Tr. I-574-75). Regarding the impact of HWTF discharges on POTWs, he testified that without knowing all the individual toxicants entering the HWTF and the treatment processes therein, it would be conjecture on his part to state the effect of such a discharge (Tr. I-585). He explained that individual treatment processes in the TSDF must be examined and a judgment made on a case-by-case basis as to the treatability of individual components or pollutants. He indicated, however, that if cost were not an object, sufficient combinations of physical, chemical and biological treatment processes could be established to handle most wastes.

50. Dr. David Moreau, an environmental engineer, a professor at UNC and Director of the Water Resources Research Institute for the University, qualified as an expert in watershed protection, water resources planning and environmental engineering, including risk assessment and public health factors (Tr. II-1284). Regarding bioassay test procedures (GSX has apparently agreed to such procedures, findings 9 and 10), he testified that the procedure was acceptable, but that in case of a violation, the procedure was little help in identifying the source, e.g., a failure in the plant, as the procedure was not chemical specific (Tr. II-1290-91). He described the merit of SB 114 as protecting against a complex

industrial waste (Tr. II-1303). He stated that the first line of defense in protecting public drinking water supplies was to draw the water from protected sources and not to rely on treatment technology (Tr. II-1305-06). As to whether 1,000-to-1 was an appropriate number, he pointed out that EPA relies on similar subjective judgments in establishing WQS and maximum contaminant levels under the SDWA (Tr. II-1307). Dr. Moreau acknowledged that, if the in-stream concentration of chemicals remained the same, the only effect of SB 114 would be to require the HWTF to be sited on a larger river (Tr. II-1331-33). He opined, however, that as between a 72,000 gpd discharger and a 500,000 gpd discharger receiving the same influent at the same concentrations, the larger discharger would present the greater risk (Tr. II-1324-25). This opinion was based upon the likelihood of failures in the HWTF.

51. Dr. Daniel Okun, a consultant and retired professor of environmental engineering from UNC, opined that SB 114 was a useful means to improve public water supplies and protect public health (Tr. II-1350, -1370). He stated that if it were up to him, he would simply have prohibited the siting of any commercial HWTF above a public drinking water supply. He emphasized that the mere fact there were other industrial and POTW dischargers to the Lumber River was not a reason to allow more of such discharges and that, if in fact, for example, the BOD capacity of the river were used up, then a newcomer

downstream would not be allowed such discharges (Tr. II-1357-58). Dr. Okun testified that only ten percent of the organic chemicals in water have been identified and that for those that have been detected, the health effects of only a few have been determined (Tr. II-1362, 1388-89). He further testified that dilution of effluent in receiving waters reduces the risk and opined that there was a reason for distinguishing between in-house facilities and commercial HWTFs in that the latter were likely to deal with a greater number of pollutants (Tr. II-1367, -1369). Because many POTWs are required to chlorinate, so little is known about chlorine reaction products and because POTW waste waters are not as high quality as the receiving stream, Dr. Okun didn't think there was any basis for allowing credit for dilution occurring in a POTW (Tr. II-1370). Under cross-examination, he acknowledged that SB 114 did not change WQS or DWS and did not reduce the concentration of known chemicals in the effluent (emphasis added) (Tr. II-1380). His concern, however, was with the wide range of chemicals yet to be identified and for which no standards exist. He was of the opinion that for such chemicals, the 1,000-to-1 dilution required by SB 114 reduced the risk. [51/] In other testimony, he acknowledged that the

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[51/] Tr. II-1380-81. Dr. Mossholder would apparently agree, for he testified that for [specific] chemicals having permit limits so as not to exceed WQS, SB 114 has no impact on the concentration of chemicals in the receiving stream (Tr. II-2123).

risk from hazardous chemicals in drinking water was a function of the numbers and concentrations of chemicals in the water (Tr. II-1394-95). He declined to answer a question as to whether SB 114 provided any benefit to human health or the environment, if it be assumed the Act did not reduce the numbers or concentrations of chemicals in the receiving stream downstream of the discharge point, because he could not visualize the Act having no effect on the concentration of chemicals in the water (Tr. II-1396-97). He acknowledged, however, that the Act operated independently of WQS (Tr. II-1398).

52. Dr. Carl Shy, identified supra at note 29, testified that his principal concern with discharges from HWTFs was that, in addition to carcinogens and mutagens, there would be toxicants in the wastestream, which have not been well identified or characterized (Tr. II-1418-19). He emphasized that by their very nature HWTFs handle a wide variety of toxic and potentially toxic substances and that the toxicity of many of the substances has not been studied or characterized. Moreover, he pointed out that, even if the toxicity of all components entering the HWTF were known, the human health consequences of discharges from the facility would not be, because of reaction products formed by the various chemicals (Tr. II-1420). As an example, he cited inorganic mercury which, when discharged to a wastestream, is converted into organic mercury which is more hazardous to human health than

the mercury originally discharged. Another example is trihalomethanes which are formed when chlorine is added to water containing organics (Tr. II-1433). He noted that chloroform, an animal carcinogen, was a specific compound of trihalomethanes. In such circumstances, he opined that [additional dilution] would protect against uncertainties associated with toxic by-products (Tr. II-1420-21). Identifying other uncertainties associated with public water supplies, he stated that more than a thousand potentially toxic chemicals in public water supplies have been detected, of which only approximately ten percent have been regulated or even monitored. Dr. Shy opined that, because of the mentioned uncertainties, meeting the standards of the CWA and SDWA in the effluent of an industrial discharger would not necessarily be sufficient to protect downstream users (Tr. II-1423). He acknowledged that there were industrial discharges to the Lumber River and that the River was already considered to be overloaded by organic chemicals. He asserted, however, that any major new source of organic chemicals would likely increase the risk of adverse human health effects. Regarding SB 114, he opined that the dilution requirement provided a reasonable and very desirable extra margin of safety for the protection of public health (Tr. II-1425-26). Under cross-examination, Dr. Shy testified that his understanding of SB 114 was that, if WQS were being met in the receiving stream, the [required] additional dilution would result in a lower

concentration of chemicals in the receiving stream (Tr. II-1445). In further testimony, he explained his understanding of the Act as being that the discharge must comply with all WQS and then, the volume of the discharge is compared to the flow of the river, to determine if it is 1,000-to-1 (Tr. II-1453).

53. Dr. Joseph Rodricks, a toxicologist and expert witness for GSX, testified that standards for water quality and drinking water are available for most commercially important chemicals which are disposed or dispersed in significant quantities (Tr. II-516). He didn't think that the 1,000-to-1 dilution required by SB 114 had any scientific basis, because what was important was the ultimate [in-stream] concentration and not the amount of dilution required to get there (Tr. II-517-18). Once effluent limits for a particular discharger, which are calculated so that WQS will not be exceeded, are set, Dr. Rodricks opined that SB 114 could not possibly provide any additional protection from increased risks caused by synergistic effects (Tr. II-521). He acknowledged, however, that in theory there was a greater risk of synergistic effects as the number of chemicals [in the wastestream] increased (Tr. II-587). Assuming that SB 114 provides for an additional 1,000 fold dilution, the Act provides more protection against such greater synergistic risks than would the same effluent level absent additional dilution. While he also acknowledged that the standard [concentration] may be too high because of

unknown synergistic effects, he pointed out that it could be wrong for other reasons and that in the absence of data, this was only conjecture. He explained this was an inherent problem with all standards (Tr. II-522). He further acknowledged that it was possible for some of the prohibited chemicals (Table II-B) in the list in the draft permit to be in the incoming waste at undetectable concentrations, but at a level harmful to human health (Tr. II-533-34). Under such circumstances, he answered affirmatively the question of whether the 1,000-to-1 dilution factor would provide more protection tc users of the water. In further testimony, he stated that 1,000-to-1 dilution, or any additional dilution for that matter, would be protective, if WQS were violated (Tr. II-544). He also indicated that SB 114 would provide some benefit in terms of public health, if additional dilution were applied beyond that used to set the standard (Tr. II-578). He described the additional benefit as trivial or negligible. Explaining his understanding of SB 114, Dr. Rodricks testified that it didn't change WQS and operated totally independent of such standards (Tr. II-620-21). His understanding of the Act was that it does not provide for an additional 1,000 fold dilution. He added, however, that all else being equal, the greater discharge provided the greater risk (Tr. II-626-27). He described risk assessment as the process to determine the relationship between exposure to an agent and the probability of the agent being harmful (Tr. II-

534). Risk management, on the other hand, concerns the level of risk which can be accepted or tolerated. Dr. Rodricks referred to SB 114 as a risk management decision (Tr. II-590).

54. Dr. Bruce A. Bell, an environmental engineer, a Senior Vice President of Carpenter Environmental Associates, Inc. and an expert witness for the State, testified that commercial aqueous HWTFs, in general, produced complex effluents of a highly variable nature (Tr. II-1726). He stated that effluents from such facilities were likely to contain a larger number of organic pollutants and to be more complex and variable than effluents from noncommercial industrial facilities. He pointed out that effluents from commercial HWTFs have been known to contain hundreds of different pollutants. He said that effluent limits in NPDES permits are set either on a technology basis or on the basis of WQS. Technology-based permit limits are based on EPA's categorical limits. No such limits, however, exist for commercial HWTFs (Tr. II-1727). Absent categorical limits, technology-based effluent limits are established based on best professional judgment (Tr. II-1727). Water quality based limits are utilized when technology based limits will not assure compliance with WQS. He opined that it was prudent for the protection of drinking water supplies to require a 1,000-to-1 dilution of effluents which are likely to contain organic pollutants which are harmful to humans or for which no toxicological health effects data exist. He was of the

opinion that the dilution factor required by SB 114 would ensure at least a 1,000-to-1 reduction in the concentration of pollutants discharged from a commercial HWTF at the point of a drinking water intake (Tr. II-1728). Dr. Bell testified that whole-effluent toxicity tests were utilized, because the ability to measure many pollutants or toxicants simply did not exist (Tr. II-1752). He asserted that in a GS/MS kind of analysis, either alone or in combination with other analyses, "* you only find what you are looking for" (Tr. II-1774). He explained that the problem [with commercial HWTFs] as compared to batch chemical plants, for example, was that you didn't know what to look for. In other testimony, he stated that SB 114 operated similarly to categorical standard in that it applied to an industry as a whole (Tr. II-1784). He acknowledged, however, that SB 114 had nothing to do with the concentrations of chemicals that are in the effluent from a particular commercial facility (Tr. II-1788-89).

55. Mr. Bryan W. Dixon, a chemical engineer and a former employee of the Texas Water Commission and its predecessor agencies, having extensive experience in the CWA and hazardous waste programs under RCRA and CERCLA, opined that a dilution of 1,000 or greater at 7Q10 conditions at the point of waste water discharge over and above effluent concentrations and loadings was a reasonable and appropriate mechanism to protect human health and the environment (Tr. II-1800). He testified that, in practice, NPDES permits are often technology rather

than health based. He said there are insufficient data regarding the toxicity of many organics and that a dilution requirement provides a buffer by reducing the amount of compounds reaching a stream (Tr. II-1801). Moreover, he pointed out that, in the absence of a dilution standard, a receiving stream can become effluent dominated. He testified that discharge volume limitations based on river flow were common. Mr. Dixon further opined that, from a regulatory standpoint, it was reasonable to distinguish between commercial and noncommercial facilities, because commercial facilities receive wastes from a wide-range of sources and the wastes can be expected to be highly variable in composition, having potentially unknown constituents (Tr. II-1803). Additionally, he testified that commercial facilities must rely greatly on secondhand information and that all of these factors add risk and uncertainty with respect to the effect of the discharge. [58/] He was of the opinion that it was appropriate to address this added risk and uncertainty, with added requirements such as the dilution requirement of the North Carolina Act.

[58/] See finding 42, supra, for HWTC's assertion that customers of HWTFs do not and cannot provide in advance detailed information as to the constituents and concentrations thereof in their wastestreams. Moreover, according to HWTC, most customers of HWTFs cannot be relied upon to provide accurate and reliable information as to particular industrial processes generating each wastestream.

56. Mr. Dixon further opined that it was appropriate, in the absence of categorical pretreatment standards, that the dilution required by SB 114 apply without regard to potential treatment and dilution at a POTW (Tr. II-1804). As reasons for this opinion, he cited the fact that most POTWs are designed for readily treatable organic wastes and were not effective against many refractory and inorganic wastes. He stated that the variability of waste from commercial HWTFs could have an upsetting effect on the POTW plant efficiency by adversely effecting the existing biological system. He added that upsets at POTW facilities are known to occur due to operator error or unanticipated strength and/or volume of the effluent, that treatment or dilution in the POTW was beyond the control of the HWTF operator and could not be consistently relied upon. He opined that the dilution requirement in the North Carolina Act guards against failure of the POTW and the HWTF. Under cross-examination, Mr. Dixon answered negatively the question of whether SB 114 required an additional 1,000 times reduction in the concentration of chemicals in the receiving stream beyond those established through effluent limits (Tr. II-1818). He indicated that a benefit of the North Carolina statute was that it would prevent the receiving stream from becoming effluent dominated (Tr. II-1819). In further testimony, however, he appeared to reverse himself, stating that SB 114 required an additional

dilution of concentration limits in the effluent (Tr. II-1820).

57. Ms. Velma Smith, an employee of EPI as Director of its Ground Water and Drinking Water Protection Project, a member of the Virginia State Water Control Board, [59] and an individual having experience in the criteria for siting HWTFs at the State and local level in Virginia testified that EPI's principal concern was that, if North Carolina's RCRA program authorization were withdrawn, then any state program which distinguished between commercial and noncommercial facilities would also be subject to rescission (Tr. II-1966, -1968). As examples of states having siting laws which distinguish between commercial and noncommercial HWTFs, Ms. Smith listed Arkansas, California, Idaho and Minnesota (Tr. II-1973-79). Opining that the North Carolina statute did have a reasonable basis [in the protection of human health and the environment], she characterized it as a screening or location criterion (Tr. II-1979, -1985). She asserted that facilities [and their discharges] would be related to the size and assimilative capacity of the river. [60] Under cross-examination, Ms. Smith

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[59] The State Water Control Board has responsibility for the implementation and enforcement of CWA programs in Virginia (Tr. II-1955, -1961-63).

[60] In common with other witnesses, e.g., Dr. Landy (Tr. I-764), Ms. Smith testified that POTWs would be least likely to have the expertise to set standards or limits which were protective of public health (Tr. II-1992).

explained correctly that SB 114 required the discharge to be one thousand times less than the 7Q10 flow of the river (Tr. II-2003-005). Under further questioning, she indicated that her understanding of the North Carolina law was that it would result in further dilution of pollutant concentrations in the river and that her opinion of the Act's benefits might change, if her understanding of the Act were wrong (Tr. II-2008-009).

58. Mr. Richard Fortuna, identified finding 41, has a Master's Degree in Public Health and, in addition to being Executive Director of HWTC since 1983, his experience includes working for Congressional Committees involved with environmental legislation including RCRA. He opined that the North Carolina statute at issue did not have a reasonable basis in the protection of human health and the environment, because the dilution factor was simply arbitrary and the statute was directed solely at commercial HWTFs (Tr. I-863-64). Elaborating on this opinion, he asserted that the dilution factor did not affect the quality of the discharge and that its sole purpose was to scale-down the GSX facility and make it uneconomic to locate at the particular site. [61/] He

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[61/] Dr. Mossholder's testimony that the proposed facility as planned could not be economically operated at the reduced scale required by SB 114 has been previously set forth (finding 29). While there is no reason to question this testimony, it should be noted that the average flow rate of commercial aqueous HWTFs is 45,000 gpd (53 Fed. Reg. 47645, NC Exh 8). Moreover, Mr. Fortuna testified that more than half of HWTC members which discharge to POTWs discharge less than 75,000 gpd (Tr. I-922).

emphasized that the dilution factor simply affected the size of the river into which a discharge could be placed (Tr. I-866). He was of the opinion that there was really no difference between discharges of commercial HWTFs and individual or collective waste generating facilities (Tr. I-874). He acknowledged, however, that leachate from landfills or Superfund sites posed a different problem or a more complex situation than simply aqueous chlorinated solvents or corrosive or acidic wastes (Tr. I-875). Testifying with reference to 40 CFR § 271.4(b) (note 5, supra), Mr. Fortuna opined that states may impose more stringent requirements that have a reasonable basis in the protection of human health and the environment (Tr. I-811). He further opined that a state program, not having a reasonable basis in the protection of human health and the environment, could be inconsistent [with the Federal program and with programs applicable in other states] even if it did not operate as a complete or total ban on the storage, treatment or disposal of hazardous waste (Tr. I-813). He explained that a ban on one facility or type of facility could act as a prohibition and that, if the net effect of the statute is the same as an outright prohibition, an indirect ban has the same effect as a direct one. He testified that the North Carolina Act operates as a prohibition even though a smaller facility could be constructed at the GSX site, because diverse capabilities to

respond to needs of the State and nation cannot be served by such a facility (Tr. I-818-19).

59. There can be no doubt that North Carolina is, and has been, in need of additional hazardous waste treatment, including aqueous treatment capacity. Indeed, the General Assembly has recognized this fact as did the North Carolina Hazardous Waste Treatment Commission. [62] The 1987 Annual Report concerning the Generation, Storage, Treatment, Disposal of Hazardous Waste issued by DHR (HWTC Exh 2) reflects that a total 2,811.8 million pounds of hazardous waste were generated in North Carolina in 1987, that 1,812.2 million pounds or 64.5 percent consisted of corrosive waste, 189 million pounds or 6.7 percent consisted of metals, lab packs, and ignitable waste and that 810.6 million pounds or 28.8 percent consisted of toxic and organic wastes. [63] The chemical and allied products

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[62] . Finding 13. See the SARA Capacity Assurance Regional Agreement entered into by the States of Alabama, South Carolina, Tennessee and Kentucky in October 1989 and an expansion of said agreement, executed in November 1989, by which the State of North Carolina became a party thereto. An attachment to the latter document reflects that North Carolina agreed to establish the following hazardous waste facilities: a 50,000 tons per year rotary kiln incinerator and thermal treatment unit, a 15,000 tons per year solvent distillation and recovery unit and a 10,000 tons per year residuals management unit. The facility or facilities are to be operational no later than December 1991. Aqueous treatment capacity for signatory states is to be provided by Tennessee. Official notice of these documents has been taken (supra at note 2).

[63] Mr. Meyer described sources of hazardous waste generated by State agencies, e.g., lab packs by the Division of Health Services, biomedical and radioactive waste generated by various hospitals operated by the State and paints having a high lead and (continued...)

industries were by far the biggest generators of hazardous wastes, contributing 64.8 percent of the total. The Annual Report further shows that 2,671.1 million pounds or 91 percent of hazardous waste generated in the State were treated in North Carolina and that 175.7 million pounds or 6 percent were shipped out-of-state. Additionally, 72.2 million pounds of hazardous waste were shipped into North Carolina in 1987. The Radian Corporation's report (HWTC Exh 3) projected total demand for hazardous waste treatment capacity in North Carolina in the year 2000 at 147.6 million pounds a year, a 40 percent increase over levels prevailing in 1983. The required increase for chemical or aqueous treatment capacity over the 1983 level was estimated at 93 percent. Dr. Mossholder estimated that, despite waste minimization programs, the demand for off-site treatment of hazardous waste in Region IV would increase by 30 percent during the period 1985-95 (Tr. II-440). Mr. Fortuna described the factors giving rise to the need for additional hazardous waste treatment capacity as the RCRA liquid landfill disposal prohibition, corrective action requirements, restrictions on the domestic sewage exclusion, tightening of discharge permit

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63/(...continued)
chrome content generated by the Department of Transportation (Tr. II-882-84). All of this waste is shipped off-site. While he stated that records were not kept of the quantity of waste generated by State agencies, he opined it would be a very small portion of the 2.8 billion pound total.

limits and new wastes being brought into the system (Tr. I-860). He opined that the North Carolina statute frustrates RCRA by not allowing a facility of the scale and type needed to be constructed.

60. Mr. Raymond Deese, Director of Public Utilities for the City of Lumberton, which includes supervision of the City's water and wastewater plants, testified that the capacity of the Lumberton waste water plant was ten million gallons a day (mgd) and that the average discharge was approximately six mgd (Tr. II-1856-57). He indicated that approximately 60 percent of influent to the facility was from industrial facilities, chiefly textile mills. He described the operational capacity of the City's water plant as approximately 9.5 mgd, stating that the average was approximately six mgd (Tr. II-1859-60). He stated additional capacity was needed, because they were "maxing-out" during the summer time and in drought periods. Although they had one well as a back-up to the river and have recently added another, Mr. Deese testified that the aquifer was inadequate to their needs and that the City would necessarily depend primarily on the Lumber River as a water source. He indicated the only present problem [with the City's water] was an occasional red color, which he attributed to a J. P. Stevens' plant up-stream. The City's water is tested daily for color, pH, bacteria and temperature and once a year for organics and inorganics as required by the State (Tr. II-1862). Mr. Deese pointed out that the number of

chemicals for which EPA was requiring [annual] tests was constantly being increased. He estimated the City's present costs for testing at approximately $100,000 a year (Tr. II-1864). Mr. Deese was familiar with the list of chemicals in the GSX preliminary draft permit. He testified that, if the GSX facility were operated as planned, the City would have to establish 24-hour-a-day composite monitoring (Tr. II-1865). He estimated the cost of such testing for equipment and personnel at $250,000 to $300,000 a year. [66/] He stated that two or three check points would have to be established in the river and the flow calculated, so that, if something [a slug of toxic chemicals] were detected, the plant could be shutdown, hopefully allowing the chemicals "to go on past" [the intake] (Tr. II-1865, -1867).

61. In other testimony, Mr. Deese opined that even GSX did not know how many chemicals would be in its discharge (Tr. II-1866). He described a POTW [capable of dealing with the proposed GSX discharge] as "real complicated" and sophisticated, stating that there were not any in the State of North Carolina at present (Tr. II-1870). Mr. Deese was familiar with the LMAC POTW, describing the plant as a twin-ditch, twin clarifier, extended-air treatment facility (Tr.

[66/] Dr. White agreed that more testing by the City would be a prudent approach (Tr. I-1370). Dr. Mossholder testified that GSX had agreed to routine testing of drinking water at the City of Lumberton (Tr. II-298).

II-1872). He added that it was fairly simple and worked really well on "normal wastewater." He pointed out, however, that the plant could be upset by high concentrations of salts or inorganic compounds "that the bugs cannot attack" (Id.). Under cross-examination, Mr. Deese acknowledged that he had opposed the GSX facility from the beginning (Tr. II-1882-83). He explained that his testimony as to the need for monitoring in the river was based on his educational experience (a degree in chemistry), his knowledge of the number and concentrations of chemicals proposed to be discharged and his knowledge of the way wastewater treatment plants operate (Tr. II-1886). His opinion as to the beneficial effects of SB 114 was based on the understanding it would reduce the concentrations of compounds in the river a 1,000 fold (Tr. II-1887).

62. The duties of Ms. Susan Absher, identified supra at note 4, have, since 1980, included reviewing, commenting on and, in conjunction with Regional Offices, approving applications by states to operate RCRA Hazardous Waste Management Programs (Tr. I-114). Her responsibilities include oversight and reviews of state RCRA program performance, developing guidance and furnishing advice on consistency questions which arise under 40 CFR § 271.4. Regarding the requirement of RCRA § 3006(b) (42 U.S.C. § 6926(b)) that state programs be "equivalent" to the federal program, Ms. Absher testified that EPA looked at this requirement from two aspects: one, whether the state was regulating the same universe of handlers and

treatment, storage and disposal facilities as EPA does and two, whether the state regulation of these facilities is at least as stringent as EPA's (Tr. I-115-16). As to the consistency requirement of § 271.4 (supra at note 5), she explained that the regulation required a three-pronged test: first, a state could not ban waste from other states or unreasonably restrict its import, second, a state cannot prohibit treatment, storage or disposal of hazardous waste without an environmental or health basis and third, states were required to use a hazardous waste manifest complying with EPA requirements. Regarding the language of § 271.4(a) to the effect that "(a)ny aspect of the State program which unreasonably restricts, impedes * * the free movement across the State border of hazardous waste * * * shall be deemed inconsistent," Ms. Absher stated that EPA did not have any hard and fast rules and that the facts of each individual situation had to be examined (Tr. I-122). She testified that the Agency had applied the regulation in two instances of fee differentials, i.e., where more is charged for the disposition or treatment of hazardous wastes from other states than for wastes generated in-state, and that, in both instances, EPA had concluded the fee differential was insufficient to discourage the transportation of hazardous waste across state borders (Tr. I-122-23).

63. Regarding the language of § 271.4(b) that "(a)ny aspect of State law & which has no basis in human health or

environmental protection and which acts as a prohibition * * may be deemed inconsistent," Ms. Absher stated EPA's advice to Regional Offices was that there had to be a reasonable or plausible basis [for the state prohibition] (Tr. I-123). She explained that there has to be a basis reasonably tied to health or environmental protection. She pointed out that these were difficult, judgment-type calls. As an example, she opined that a state law prohibiting the siting of a HWTF within a quarter or half-a-mile of a school probably would have a reasonable basis [in protection of human health or the environment], while a law setting the distance between a school and a HWTF at a minimum of 20 miles, would effectively rule out an entire state, and not have such a basis. As to RCRA § 3009, which specifically allows states to impose more stringent requirements than EPA regulations, Ms. Absher stated that, in her mind, the consistency requirements overrule the stringency provisions (Tr. I-129-30). She emphasized that the requirement for a health or environmental protection basis only applied to the second of the consistency requirements [i.e., § 271.4(b)]. In other testimony, Ms. Absher stated the most common form of state prohibitions were local siting vetoes, restrictions on the types of waste which could be brought into a state and fee differentials. She remarked that a provision for a local siting veto might actually aid siting of a HWTF and, other than it was a case-by-case call, stated that the Agency had not adopted a definitive position (Tr. I-

SUMMARY FINDINGS ON FACTUAL ISSUES

1. On this record, the issue of whether SB 114 unreasonably restricts the free movement of hazardous waste across the State's borders for treatment, storage or disposal is answered in the negative. Firstly, the Act is not, on its face, directed at out-of-state waste, but, with the exception of a facility owned by the State solely for the purpose of treating hazardous waste generated by agencies or subdivisions of the State, applies to commercial HWTFs without regard to the source of the waste. Secondly, for all that appears a large facility of the type proposed by GSX could be constructed at other sites within the State in compliance with the Act (finding 34). While it may be taken "as a given" that there would be citizen opposition to such a siting, this opposition would exist independently of SB 114. Thirdly, a smaller facility having a discharge of approximately 72,000 gpd could be constructed in compliance with the Act at the GSX Laurinburg site (findings 34 and 54). While the record shows that a sophisticated facility of the type contemplated by GSX could not be economically operated (finding 29), facilities with an average volume of 72,000 gpd or less are apparently in routine operation across the country (supra at note 61). Moreover, it is not necessarily accurate to attribute the downsizing of the proposed facility solely to SB 114. See finding 32, to the effect that the discharge might be limited to 160,000 gpd in order to comply with WQS and finding 35, to

the effect that application of revised WQS would further limit proposed discharges.

2. The record supports an affirmative answer to the issue of whether there is any basis in the protection of human health or the environment for the Act's distinction between commercial HWTFs and noncommercial facilities. The fact that commercial HWTFs are likely to have more pollutants than a normal industrial discharger was repeatedly affirmed by numerous witnesses (findings 43, 49, 52, 54, and 53). Moreover, effluent from such facilities is likely to be more variable and complex than effluent from other industrial facilities. Indeed, the hazardous waste treatment industry has endorsed this position (findings 41 and 42). Under such circumstances, there is a greater possibility of additional contaminants or breakdown products being formed due to synergistic or other effects and a greater likelihood of interferences or upsets of the POTW into which the HWTF discharges (findings 47, 52, and 53). EPA has recognized that the aqueous waste treatment and disposal industry is of particular concern (findings 38-40). Upsets of, or interferences with, the POTW could effect WQS and would, of course, be of particular concern to downstream users.

3. The question of whether the Act operates as a prohibition on the treatment, storage or disposal of hazardous waste in the State by facilities subject to the Act is answered in the negative. The Act, of course, is applicable only to new or

modified commercial HWTFs and, as found in finding 1 above, HWTFs in compliance with the Act could be sited at other locations within the State. Indeed, the Act does not prohibit the construction of a scaled-down HWTF at the Laurinburg GSX site. Although Mr. Fortuna acknowledged that a smaller facility could be constructed at the GSX site, he testified that the Act operated as a prohibition, because diverse capabilities to respond to needs of the State and nation cannot be served by such a facility (finding 58). Because this opinion appears to be based more on Mr. Fortuna's understanding of RCRA than on the actual effects of SB 114 and there is no indication that RCRA was intended to "strait-jacket" state initiatives to that extent, his opinion is not accepted.

4.A. Although SB 114 is more properly characterized as a sizing or siting statute, the record supports the finding that the Act has a basis in the protection of human health and the environment. It is, of course, true that effluent limits from particular dischargers are established based on existing pollutant concentrations in the receiving stream and back-calculating maximum limits on concentrations in order to comply with WQS (finding 44). It is also true that SB 114 applies at the point of discharge and does not effect either WQS or DWS and does not reduce the concentration of known chemicals in the effluent. Whether the Act has any health or environmentally protective effects or benefits as to unknown

chemicals and for which WQ or other standards have not been established was a matter of some dispute at the hearing. As to such chemicals, it appears that whole effluent bioassay testing is intended to be the primary means of protection and SB 114 obviously has no effect on that requirement. The beneficial effects of SB 114 do not depend on resolution of that dispute, however, for there is evidence that SB 114 might afford additional protection, if permit or effluent limits were being violated. [65/] Moreover, there can, of course, be no doubt that SB 114 does reduce the volume of effluent in proportion to the flow of the receiving stream. In this regard, Drs. Moreau and Rodricks agreed that, all else being equal, the greater discharge posed the greater risk (findings 50 and 53). While it may well be that "all else" is seldom, if ever, equal, the cited testimony is evidence, albeit limited, that SB 114 has effects protective of human health and the environment. Moreover, there is evidence that SB 114 would assure better mixing of effluent before it reached the Lumberton drinking water intake (Dorney, finding 37) and an additional benefit of SB 114 is that it tends to prevent the

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[65/] Gostomski, finding 45. Drs. Landy and Rodricks testified that additional dilution would be beneficial in the event WQS were violated (findings 46 and 52). While Petitioners contend that SB 114 does not provide for dilution beyond that assumed in calculating permit effluent limits, in cases where either, or both permit limits and WQS are violated, it would seem that limiting the volume of the discharge to not less than one thousandth the flow of the receiving stream could have a diluting effect (finding 50).

receiving stream from becoming effluent dominated (Dixon, finding 55).

B. While there is evidence that dilution and treatment in POTWs mitigates the impact of toxicants in industrial discharges (Bishop, findings 48 and 49), the record provides ample support for disregarding such dilution and treatment. Firstly, it appears that POTW flow rates in North Carolina are such that dilution therein would not make a significant difference as to discharges in compliance with SB 114 (Dorney, finding 37). As to treatment, removal rates in a POTW vary widely and there is no way of determining in advance what such rates will be, absent detailed information as to the treatability of specific pollutants and constituents (Dorney, finding 37; Bishop finding 49). There is also a greater likelihood of upsets or interferences in a POTW receiving discharges from a commercial HWTF (Dixon, finding 56). Moreover, the State, the LMAC and GSX agreed during permit negotiations that, because no one knew what the removal rate in the LMAC would be, the conservative, "safe position" was to assume there would be no such removal. If this is a reasonable position for permit issuers and regulating authorities to take, it is no less reasonable for the drafters of SB 114.

C. With respect to the issue of whether there is any basis in human health or environmental protection for the dilution provision which, inter alia, disregards treatment levels

achieved by a facility subject to the Act and applies irrespective of the quality of the discharge, the Act's benefits, as noted above, are related to instances of violation of either, or both, permit limits and WQS. Moreover, as detailed below SB 114 can be regarded as a siting statute.

5. Whether SB 114 imposes more stringent requirements which have any basis in the protection of human health and the environment as authorized by RCRA § 3009 is answered in the affirmative to the extent the Act requires or encourages the siting of HWTFs below public drinking water intakes. EPA characterized SB 114 as a siting statute (finding 62) and this characterization is supported by the record. EPA has adopted location standards only with respect to seismic considerations and flood plains (40 CFR § 264.18) and the validity of the Act as a siting criterion is seemingly not dependent upon whether it is a more stringent regulation within the meaning of § 3009. To the extent the Act requires or encourages locating HWTFs below drinking water intakes, it imposes requirements in addition to those required by EPA and to that extent may be regarded as more stringent. To the extent this requires siting of HWTFs upon larger rivers, it merely shifts the risk from one population to another and is not a more stringent requirement.

6. Whether the Act will make operation of some or all new commercial treatment facilities in the State economically

unfeasible is answered in the affirmative as to the proposed GSX facility at the Laurinburg site. [66/] The record also supports a finding that SB 114 discouraged Ecoflo from seeking a permit modification which would allow the treatment of aqueous hazardous waste, because the Act made the proposal not economically viable (finding 30). That being said, facilities with discharges much less than the proposed GSX facility are apparently in routine operation across the country (supra at note 61) and the evidence simply will not support a finding that the Act has rendered the operation of all new commercial treatment facilities, let alone aqueous facilities, not economically viable. [67/]

7. The issue of whether the dilution provision of the Act will apply to [prohibit HWTFs from locating at] 85 percent of potential sites in the State for commercial treatment facilities is answered in the negative (finding 34). Even if Mr. Dorney's description of the very limited effect of SB 114 on the number of potential HWTF sites in North Carolina is

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[66/] Finding 29. Although Respondents argue that RCRA is not concerned with the economic feasibility of hazardous waste facilities, it is clear that unreasonable or unduly onerous requirements could have a prohibitory effect and thus be the equivalent of an outright ban on the establishment of new HWTFs. Senator Conder appears to have recognized this fact (finding 26).

[67/] There is no indication of whether State or private resources will be relied upon to establish the hazardous waste treatment capacity required by the Expansion of the SARA Capacity Assurance Agreement (supra at note 62).

regarded as extreme, there is no evidence to rebut his testimony that most of the river miles in the State were not available for siting HWTFs, irrespective of SB 114, because the rivers lacked sufficient flow and assimilative capacity for siting such facilities.

8. Whether the Act will prohibit the facility proposed in the GSX draft permit from operating at Laurinburg is answered in the affirmative, because SB 114 requires that the discharge be reduced to approximately 72,000 gpd (finding 29). The record establishes that it is not economically feasible to operate a sophisticated facility as proposed by GSX at such a volume. While the record shows there are other sites at which the GSX facility could be located, there are still other sites which SB 114 has the effect of rendering unavailable. What is true of the proposed GSX facility is likely to be true of other facilities and the issues in No. 8 are answered in the affirmative.

9. The question of whether adequate capacity for the treatment of hazardous waste at aqueous treatment facilities currently exists in North Carolina is answered in the negative (finding 59). Moreover, the shortage of aqueous hazardous waste treatment capacity in the State is projected to become even more pronounced in the future.

CONCLUSIONS

1. The North Carolina statute at issue (SB 114) does not unreasonably restrict, impede or operate as a ban on the free movement of hazardous waste across the State's borders for treatment, storage or disposal within the meaning of 40 CFR § 271.4(a).

2. SB 114 has a basis in human health and environmental protection and does not act as a prohibition on the treatment, storage or disposal of hazardous waste in the State by facilities subject to the Act within the meaning of 40 CFR § 271.4(b). Because the cited section uses the phrase "may be deemed inconsistent" a finding that the Act had no basis in protection of human health and the environment and acted as a prohibition on the treatment storage or disposal of hazardous waste would not require withdrawal of North Carolina's program approval.

3. Enactment of SB 114 is not action by the General Assembly striking down or limiting the State's authorities within the meaning of 40 CFR § 271.22(a)(1)(ii) or failing to issue permits within the meaning of § 271.22(a)(2)(i). Even if thee issues were answered in the affirmative, however, a single such instance is not an adequate basis upon which to base withdrawal of the State's RCRA program authorization.

4. North Carolina's hazardous waste treatment program has not been shown to be inconsistent with the federal program and

with programs in other states and it is recommended that the instant proceeding be dismissed.

D I S C U S S I O N

I. Burden of Proof

Under the Administrative Procedure Act, the proponent of a rule or order has the burden of proof (5 U.S.C. § 556(d)). North Carolina and allied parties cite 40 CFR § 271.23(b)(1) to the effect that the party seeking withdrawal of the State's program authorization has the burden of coming forward with evidence and argue that it is Petitioners which are the proponents of an order that the State's program authority be withdrawn. Section 271.23(b)(1) clearly concerns the burden of production, however, as distinguished from the burden of persuasion, and I have previously ruled that, because 40 CFR § 271.1(g) requires that any state program approved by the Administrator be conducted at all times in accordance with the requirements of 40 CFR Part 271, Subpart A, it was appropriate to place the burden of persuasion on the State (Opinion and Order Addressing Procedural Motions, dated April 28, 1988, at 12-15). Although that decision was rendered based on the assumption the APA was applicable to this proceeding, and I have since ruled the APA did not apply (Order, dated November 30, 1989, supra at note 4), the cited regulatory provision makes it appropriate that the burden of persuasion remain with the State. In view of the recommendation made herein, it is concluded that on this record the State has carried its burden.

II. Interpretation Of § 271.4

While it is clear that the validity of § 271.4 cannot be questioned in this proceeding, [68] it is equally clear that the interpretation and application of the regulation are in issue. This is especially true, because it is doubtful that the Court of Appeals for the D.C. Circuit would have regarded as "ripe" for judicial review and thus entertained a challenge to the regulation at the time it was promulgated. [69] Moreover, § 271.4, then § 123.32, was promulgated on May 19, 1980 (45 Fed. Reg. 33465), while the so-called "Bumpers Amendment" to § 3009 was not enacted until October of that year. [70] EPA does not appear to have issued or proposed any regulations specifically implementing or even recognizing the "Bumpers Amendment," which, of course, makes it even more unlikely that a judicial challenge would have been entertained at the time the regulation was promulgated.

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[68] Opinion and Order Denying Motions To Reconsider, Dismiss Or Rescind, dated April 14, 1988, at 25.

[69] See, e.g., Natural Resources Defense Council v. U.S. EPA, 859 F.2d 156 (D.C. Cir. 1988) (challenge not ripe where significance of rule or regulation depends upon its application).

[70] Public Law 96-482, 94 Stat. 2342, October 21, 1980. The amendment provides:

> * * * Nothing in this chapter shall be construed to prohibit any State or political subdivision thereof from imposing any requirements, including those for site selection, which are more stringent than those imposed by such regulations. * * * *.

Although Petitioners contend that the constitutionality of SB 114 [as a burden on interstate commerce] is not at issue herein, in promulgating what is presently § 271.4, EPA made it clear that the primary focus of the consistency requirement, assuming the state program was otherwise at least as stringent as the Federal, would be on commerce considerations or effects. [71] For example, the Agency, citing City of Philadelphia v. New Jersey, 437 U.S. 617 (1978), stated "* * that any aspect of a State program which operates as a ban on the interstate movement of hazardous waste is automatically inconsistent" (45 Fed. Reg. 33395, May 19, 1980). For the reasons stated in summary finding 1, SB 114 does not unreasonably restrict, impede or operate as a ban on the free movement of hazardous waste across the State's borders. Thus SB 114 does not render North Carolina's hazardous waste program "inconsistent" within the meaning of § 271.4(a).

Regarding § 271.4(b), the preamble again makes it clear that the Agency was focusing primarily on state laws or programs which have the effect of prohibiting interstate commerce in hazardous waste. [72] No regulatory source or preamble explanation for the

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[71] See Snyder, The EPA-North Carolina Dispute: The Right Of States To Pass Stricter Laws Under The Resource, Conservation and Recovery Act, 8 Virginia Journal Of Natural Resources Law 171-190, at 182 (1988).

[72] See 45 Fed. Reg. 33395:

> EPA believes that State requirements which forbid the construction or operation of hazardous waste disposal facilities could be subject to attack by the same reasoning adopted by the courts that

(continued...)

phrase "which has no basis in human health or environmental protection" has been found. Petitioners argue that it means reasonable basis and, of course, that the State and allied parties have failed to show that SB 114 has such a basis. Ms. Absher, it will be recalled, testified that EPA's advice to Regional Offices was to the effect that there must be a reasonable or plausible basis for the state prohibition (finding 63). The Task Force commissioned by former Administrator Lee Thomas concluded that "(w)ith our present regulations virtually any environmental benefit is sufficient to allow a state to be more stringent than the national program" (Order, dated November 30, 1989 (supra at note 4) at 15, note 17). HWTC has characterized EPA's Part 271 regulations concerning consistency of state programs as "* * crabbed, ill-defined and unchanged since 1980 * *" (Petition For Rulemaking, HWTC Exh 1, at 5).

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[12] (...continued)
have struck down transportation bans. A State that refuses entirely to allow a necessary part of national commerce--the disposal of hazardous waste--to take place within its boundaries is impeding the flow of interstate commerce just as much as a State that refuses to allow the transportation of those wastes. The interstate commerce concerns involved here are underlined by the establishment through RCRA of a national regulatory scheme, even though that scheme is not on its face preemptive. Accordingly, State programs which contain provisions that prohibit treatment, storage or disposal of hazardous waste within the State, will be deemed inconsistent if the prohibition has no basis in human health or environmental protection.

The rule that deference is due to an agency's interpretation of its own regulations is, of course, recognized. [73] Nevertheless, it is concluded that, on this record, the human health and environmental justification for SB 114 is sufficiently reasonable to comply with the Agency's own interpretation of § 271.4(b) as stated by Ms. Absher and as set forth by the EPA Task Force. As indicated (summary finding 4A), SB 114 can provide human health and environmental protection benefits in instances of violation of permit limits or WQS. It is also clear that reducing the volume of discharge, all else being equal, reduces the risk. There is evidence that SB 114 will assure better mixing in the receiving stream and tend to prevent the receiving stream from becoming effluent dominated (summary finding 4A). While the latter two reasons are more accurately characterized as "siting criteria," this record justification for SB 114 is reasonable.

Petitioners' argument to the contrary is based upon the contention SB 114 is arbitrary and, as it does not affect allowable pollutant concentrations in the effluent or receiving stream, it cannot provide additional protection to human health or the environment. Of course the 1,000-to-1 dilution factor is arbitrary in the sense that any numerical cut-off or end-point may be. For example, the PCB rule, 40 CFR Part 761, applies generally to PCBs

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[73] Comite pro Rescate de la Salud v. PRASA, supra at note 48, is perhaps an extreme case in this respect, because the Agency interpretation adopted by the court was set forth in an amicus brief and appears contrary to the plain language of the regulation (note 48 supra).

at concentrations of 50 ppm or more (§ 761.3(b)). Although this cut-off is seemingly arbitrary, particularly as compared to concentrations above 49 ppm, but less than 50 ppm, the validity of the regulation is not thereby affected. Whether a pesticide applicator is entitled to the small quantity generator exemption for hazardous waste specified by 40 CFR § 261.5 may well depend on whether the decision to discard unused pesticide is made before or after the pesticide is mixed. The fact, however, that a law or regulation may produce illogical results under some circumstances or, that, under other hypothetical facts, it may readily be evaded is not a basis for questioning its validity. In any event, the record here shows that it is not feasible to concentrate pollutants in order to circumvent the 1,000-to-1 dilution requirement (supra at note 56). The contention that the 1,000-to-1 dilution factor is invalid as an arbitrary cut-off is rejected.

Although Petitioners' contention that SB 114 does not affect allowable pollutant concentrations in the effluent or receiving stream is correct, the Act, as we have seen, is beneficial in cases of violation of permit limits or WQS. Other grounds for contending that SB 114 is arbitrary are that it applies only to commercial HWTFs and that the law is a sham enacted for the sole purpose of blocking the GSX facility. The record overwhelmingly supports the conclusion that effluent from commercial HWTFs is or may be different and more complex than effluent from industrial facilities. Moreover, states in addition to North Carolina have enacted siting laws distinguishing between commercial and

noncommercial facilities. See finding 57 and infra para. IV. While there may be some question whether RCRA, as a matter of law, permits such distinctions, it is apparent that the consistency of many state statutes and regulations will be open to question, if such distinctions are not permissible. In any event, the court in Cecos International, Inc. v. Jorling, 895 F.2d 66, 30 ERC 1940 (2nd Cir. 1990), had little difficulty in upholding as legitimate a New York statute which distinguished between commercial and noncommercial facilities. As indicated, infra para. III, SB 114 does not frustrate the purpose of RCRA and under these circumstances "looking behind" the purpose of the Act is not permissible as a matter of law.

The record shows that the GSX facility as proposed could be sited at other locations within North Carolina in compliance with SB 114 (summary finding 1). Indeed, a down-scaled HWTF could be constructed at the GSX Laurinburg site (Id.). In view of these findings, the fact that SB 114 has the effect of prohibiting a sophisticated facility of the type contemplated by GSX from operating at Laurinburg and at numerous other locations within the State (summary finding 8) does not show that the Act operates as a prohibition on the treatment, storage or disposal of hazardous waste. Because EPA appears to have construed the phrase "act as a prohibition" in § 271.4(b) as equivalent to an outright ban or refusal to accept hazardous waste for treatment, storage, or disposal (note 72 supra) and it is clear that SB 114 does not have such an effect, the fact that North Carolina lacks adequate

capacity for the treatment of aqueous hazardous waste (summary finding 9), does not change this result. Mr. Fortuna's testimony that SB 114 was nevertheless prohibitory, "because diverse capabilities to respond to the needs of the State and nation cannot be served by such a facility" (finding 58) is based more on his interpretation of RCRA than on the actual effects of the Act. Although RCRA may be said to contemplate an integrated national program for the management of hazardous waste with the federal requirements as a floor, it does not demand uniformity of permit results. The Supreme Court has held that RCRA is not preemptory, City of Philadelphia v. New Jersey, supra, and RCRA § 3009, expressly allowing more stringent requirements than those established by Federal regulations, clearly contemplates the likelihood of divergent permitting decisions. See, e.g., Snyder, note 71 supra, at 187. For all of these reasons, SB 114 does not render North Carolina's hazardous waste program inconsistent within the meaning of § 271.4(b).

Moreover, it should be emphasized that § 271.4(b) is not mandatory, but uses the phrase "may be deemed inconsistent." Accordingly, a finding that SB 114 had no basis in human health and the environment and operated as prohibition on the treatment, storage or disposal of hazardous waste would not require withdrawal of North Carolina's program authorization. As indicated, infra para. V, a single violation is too draconian to require withdrawal of a state's program under § 271.22 and no reason is apparent why the same result should not apply here.

III. Purpose Of SB-114

In petitions to EPA to commence proceedings to withdraw North Carolina's RCRA program authorization, GSX and HWTC characterized SB 114 as intended solely to block the GSX facility (EPA Exhs 24 and 25). EPA, in deciding that grounds exist to institute this action, placed great reliance on statements of the sponsors of SB 114 to the effect that the legislation was directed at GSX and that several versions of the bill had been forwarded to EPA for comment ("White paper," EPA Exh 4). In posthearing arguments, Petitioners emphasize that the purpose of the legislation was to stop the proposed GSX facility (Reply Brief at 3-8).

The Act states on its face that its purpose is to protect public health and, while there can be little doubt that a purpose of the sponsors of SB 114 was to delay or block the proposed GSX facility (finding 16), other supporters of the bill argued for its public health benefits (findings 21 and 22). When a state statute is attacked as violative of the equal protection clause of the Fourteenth Amendment, the courts accept the stated purpose of the legislation, unless an examination of the circumstances compels the conclusion that the stated purpose could not have been the goal of the legislation. Minnesota v. Clover Leaf Creamery Co., 449 U.S. 459-89, at note 7, 66 L.Ed. 2d 659 (1981). See also Northwest Central Pipeline Corp. v. State Corporation Commission Of Kansas, ____ U.S. _____, 109 S.Ct. 1262 (1989) (state regulation impacting Federal jurisdiction which plausibly had the effect of increasing natural gas production, not shown to lack a proper state purpose).

In addition, see Cecos International, Inc. v. Jorling, supra, rejecting as "a shot wide of the mark" the contention that the true purpose of the legislation at issue, i.e., to block an expansion of the Cecos facility, could be shown by statements of sponsors of the law. The reason, of course, is that "* * what motivates one legislator to make a speech about a statute may not be what motivates scores of others to enact it * *," 895 F.2d at 73, 30 ERC at 1945.

The foregoing establishes that, with the possible exception of school desegregation cases, [74] the courts have not been hospitable to attempts to "look behind" the stated purpose of legislation. Here, it has been concluded that SB 114 has a sufficiently reasonable basis in the protection of human health and the environment so as to be within the Agency's definition of that phrase in § 271.4(b) and that the Act does not operate as a prohibition on the treatment, storage or disposal of hazardous waste. Under these circumstances, the statements of the Act's sponsors may not be utilized to show that the true purpose of the Act was simply "to get GSX."

EPA, as indicated (finding 64), characterized SB 114 as a siting statute and this characterization has been accepted. Because EPA has established location standards only with respect to seismic considerations and floodplains (40 CFR § 264.18), the

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[74] See, e.g., Turner v. Littleton-Lake Gaston School District, 442 F.2d 584 (4th Cir. 1971), cited by Petitioners.

states should be free to establish additional requirements for siting or location of HWTFs irrespective of the "more stringent" provision of § 3009 (supra at note 71). Under this view, the "Bumpers Amendment" is relevant only to the extent it demonstrates that uniformity of permit results is not a requirement of RCRA. To the extent, however, that EPA would allow the siting of an HWTF above a public drinking water intake, while SB 114 would encourage such facilities to be located only below such intakes, the Act is a more stringent siting requirement expressly allowed by RCRA § 3009. The only legislative history concerning the "more stringent" amendment to § 3009 are the remarks of Senator Bumpers on the Senate floor. [75] The amendment is unambiguous and no basis appears

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[75] 125 Cong. Rec., June 4, 1979 (Conservation Council Exh 3) at 13248:

> * * * The act [RCRA] provides States with a framework for implementing hazardous waste treatment and disposal programs. However, it is inadequate in that it does not give States the opportunity to set standards more stringent than those provided by Federal authorities in establishing sites for waste disposal facilities. My amendment to the Solid Waste Disposal Act corrects this deficiency by allowing the States to adopt standards more stringent than the Federal standards when selecting sites for the disposal of hazardous waste materials.
>
> In my State, a site for the disposal of hazardous waste, near the community of Hope, Ark., may meet Federal standards and, thus, qualify as a location for a hazardous waste facility. I believe the States should be allowed to adopt standards more stringent than Federal standards, in order to adequately protect the citizens of our States.
>
> Mr. President, I am not going to belabor the point. My amendment is a very simple one: It simply provides that States may have more stringent

(continued...)

for adopting a narrow or restricted interpretation of § 3009. Although SB 114 has, and undoubtedly will continue to have, some indeterminate effect on the interstate transportation of hazardous waste, the Act does not constitute an unreasonable burden on interstate commerce and is thus constitutional. [76] Moreover, any

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[75] (...continued)
standards than the Federal standards. The law now provides that State laws may not be less stringent, and this would be an addendum to that section of the act.

Regarding the proposed hazardous waste landfill near Hope, Arkansas referred to by Senator Bumpers, it is understood that the permit application was abandoned after the State revised its hazardous waste regulations, effective September 1, 1981, to prohibit issuance of a permit for such a facility, if the proximity of a water supply to the active portion of a hazardous waste landfill constituted "an unacceptable risk to the public health or safety" (Arkansas Hazardous Waste Management Code § 5(b)(5)).

[76] The Act does not excessively burden interstate commerce. In Exxon Corp. v. Governor of Maryland, 437 U.S. 117 (1978), the Supreme Court concluded that a Maryland statute, which prohibited petroleum producers and refiners from operating retail services within the State, did not discriminate against interstate commerce merely because of the fact that there were no such producers and refiners within the State, and the burden fell solely on interstate companies. The Court held that neither the placing of a disparate burden on some interstate companies nor the shifting of some businesses from one interstate supplier to another established an impermissible burden on interstate commerce. Id. at 126-127. In response to appellants' claim that the statute would change the interstate market by "weakening" some firms, the Court rejected the "underlying notion that the Commerce Clause protects the particular structure or methods of operation in a retail market." Id. at 127. The rationale of that case negates any argument that the Act's burden on certain hazardous waste facilities discriminates against interstate commerce. With the single exception of facilities owned by the State for sole purpose of treating waste generated by the State or agencies or subdivisions thereof, the Act regulates evenhandedly and is not concerned with the source of the waste. The Act has a plausible or reasonable basis in a traditional state concern, protection of public health, and clearly passes the balancing test of Pike v. Bruce Church, Inc., 397 U.S. 137 (1970).
(continued...)

burden the North Carolina Act places on commerce must have been within the contemplation of Congress, i.e., diverse permitting results, and thus cannot be said to be opposed to or to frustrate the purpose of RCRA.

IV. State Laws Distinguishing Between Commercial And Noncommercial Facilities

It will be recalled that Ms. Smith testified that states in addition to North Carolina have enacted siting laws which distinguish between commercial and noncommercial facilities, citing as examples Arkansas, California, Idaho and Minnesota (finding 57).

The Arkansas Hazardous Waste Management Code defines a noncommercial hazardous waste facility as a hazardous waste management facility which is constructed and operated to store, treat and/or dispose of hazardous waste which has been generated by the owners or operators of said facility and at which storage, treatment or disposal is not undertaken for profit (§ 2(b)(10)). Section 5 is entitled "Siting Criteria" and § 5(c) prohibits issuance of a permit for a new commercial hazardous waste land fill if the active portions of such facility are located within one-half mile of any occupied dwelling, church, school, hospital or similarly occupied structure at the time the application is submitted unless the applicant can affirmatively demonstrate that a lesser margin will provide adequate margins of safety even under abnormal operating conditions.

76/ (...continued)
See Northwest Central Pipeline, supra, 109 S.Ct. at 1282.

The Idaho Hazardous Waste Management Act defines "commercial hazardous waste facility or site" as any hazardous waste facility whose primary business is the treatment, storage or disposal, for a fee or other consideration, of hazardous waste generated offsite by generators other than the owner or operator of the facility (Hazardous Waste Management Act § 39-4403(2)). Section 39-4423(1) prohibits the discharge, deposit, injection, dumping, spilling, leaking or placing of any restricted hazardous waste as defined in section 39-4403, into or on any land or water at a commercial hazardous waste facility or site. Section 39-4427 imposes a fee of $20 per ton or fraction thereof on all materials disposed of at a commercial hazardous waste facility after July 1, 1984.

Section 9200.7100, Subd. 7 of the Minnesota Permit Rules For Hazardous Waste Processing Facilities defines "commercial or waste processing facility" as a facility established and permitted to sell waste processing service to generators other than the owner and operator of the facility and located within an area in the board's inventory of preferred areas for hazardous waste processing facilities. A person intending to obtain a permit for a commercial waste processing facility must obtain clearance prior to applying for a permit (§ 9200.7300, Subpart I). Requirements for the siting of commercial stabilization and containment facilities include a provision stating that "[i]f the board determines and certifies that [such a] facility is needed and should be developed in the State, the board shall select a site or sites and specify the number, type, capacity, function, and use of any facilities to be

established . . . ." (Minn. Stat. Ann. § 115A.28, Subdivision 1 (1987)).

Additionally, siting criteria in the Virginia regulations, which apply only to commercial hazardous waste facilities (Virginia Hazardous Waste Facility Siting Criteria, Section 1.4), state that such facilities "should not be sited so that a community/noncommunity water system and supply of surface water would be jeopardized . . . ." (Id. Section 2.4, Subsection A2).

V. Whether Criteria In 40 CFR § 271.22 Are At Issue

The order of November 3, 1987, commencing this proceeding alleged, inter alia, that SB 114 was action by the State legislature striking down or limiting State authorities within the meaning of 40 CFR § 271.22(a)(1)(ii) and failure to issue permits within the purview of § 271.22(a)(2)(i) (52 Fed. Reg. 43906). In a Motion To Recommend And Specify Procedures, dated January 25, 1988, however, EPA omitted any reference to § 271.22 as an issue in the proceeding and the Order Establishing Issues (Attachment B) does not mention § 271.22. The State and allied parties, accordingly, argue that EPA has abandoned this issue and that any reliance on that section to withdraw North Carolina's program authority would be a violation of its due process right to notice of the charges against it (Reply Brief, dated March 12, 1990, at 6-8). As I ruled at the hearing, however, the Order Establishing Issues merely framed the matters upon which evidence would or could be offered and did not have the effect of eliminating legal issues within the purview of the regulation from the proceeding (Tr. I-

223). While that ruling concerned another issue, the same principle is applicable. The argument that consideration as a legal matter of issues under § 271.22 would violate the State's right to due process is without merit and is rejected.

On the merits, it is concluded that RCRA does not demand "strait-jacket" uniformity of results and, SB 114 being viewed as an additional siting requirement for HWTFs, the Act may not be regarded as an action of the State legislature striking down or limiting State authorities within the meaning of § 271.22(a)(1)(ii). Moreover, it is at least doubtful that there has been a failure to issue permits as specified in § 271.22(a)(2)(i), because a prerequisite to issuance of a RCRA permit to GSX was a modification of the LMAC's NPDES permit to reflect GSX's discharges (finding 9). It simply has not been shown that such a permit would have been issued. In any event, even if SB 114 were regarded both as a striking down of State authorities and a refusal to issue permits, a single instance of violation would not be an adequate basis upon which to withdraw North Carolina's program authorization. "Such a requirement would be draconian and has been rejected by the Agency and the Courts" (45 Fed. Reg. 33384, May 19, 1980), citing Save The Bay v. Administrator, 556 F.2d 1282 (5th Cir. 1977).

VI. Recommendation

North Carolina's hazardous waste management has not been shown to be inconsistent with the federal program or with programs applicable in other states and it is recommended that this proceeding be dismissed. [11/]

Dated this 11th day of April 1990.

Spencer T. Nissen
Administrative Law Judge

ATTACHMENT A - Senate Bill 114
ATTACHMENT B - Order Establishing Issues

[11/] Certification of the record as required by 40 CFR § 271.23(b)(7) will follow. Any extension of 20-day period for filing exceptions specified by § 271.23(b)(7) must be addressed to the Regional Administrator in San Francisco.

GENERAL ASSEMBLY OF NORTH CAROLINA
1987 SESSION
RATIFIED BILL

CHAPTER 437
SENATE BILL 114

AN ACT TO SPECIFY AN ADDITIONAL REQUIREMENT APPLICABLE TO THE PERMITTING OF ANY COMMERCIAL HAZARDOUS WASTE TREATMENT FACILITY FOR THE PURPOSE OF PROTECTING PUBLIC HEALTH.

The General Assembly of North Carolina enacts:

Section 1. Article 9 of Chapter 130A of the General Statutes is amended by adding a new section to read:

"**§ 130A-295.01. Additional requirement for commercial hazardous waste treatment facilities.**--(a) As used in this section:

(1) 'Commercial hazardous waste treatment facility' means any hazardous waste treatment facility which accepts hazardous waste from the general public or from another person for a fee, but does not include any facility owned or operated by a generator of hazardous waste solely for his own use, and does not include any facility owned by the State or by any agency or subdivision thereof solely for the treatment of hazardous waste generated by agencies or subdivisions of the State;

(2) 'New', when used in connection with 'facility', refers to a planned or proposed facility, or a facility which has not been placed in operation, but does not include facilities which have commenced operations as of the date this section became effective, including facilities operated under interim status;

(3) 'Modified', when used in connection with 'permit', means any change in any permit in force on or after the date this section becomes effective which would either expand the scope of permitted operations, or extend the expiration date of the permit, or otherwise constitute a major modification of the permit as defined in Title 40, Part 270.41 of the Code of Federal Regulations (1 July 1986); and

(4) '7Q10 conditions', when used in connection with 'surface water', refers to the minimum average flow for a period of seven consecutive days that has an average occurrence of once in 10 years as referenced in 15 NCAC 2B .0206(a)(3) as adopted February 1, 1976.

(b) No permit for any new commercial hazardous waste treatment facility shall be issued or become effective, and no permit for a commercial hazardous waste treatment facility shall be modified, until the applicant has satisfied the Department that such facility meets, in addition to all other applicable requirements, the following requirements:

(1) The facility shall not discharge directly a hazardous or toxic substance into a surface water that is upstream from a public drinking water supply intake in North Carolina, unless there is a dilution factor of 1000 or greater at the point of discharge into the surface water under 7Q10 conditions.

(2) The facility shall not discharge indirectly through a publicly owned treatment works (POTW) a hazardous or toxic substance into a surface water that is upstream from a public drinking water supply intake in North Carolina, unless there is a dilution factor of 1000 or greater, irrespective of any dilution occurring in a wastewater treatment plant, at the point of discharge into the surface water under 7Q10 conditions."

Sec. 2. The provisions of this act are severable. If the Administrator of the United States Environmental Protection Agency concludes; pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. \§ 6926; and Title 40, Part 271, Code of Federal Regulations §§ 271.22 and .23, or in accordance with other applicable law and regulations; that any provision of this act will result in the withdrawal of approval of the North Carolina hazardous waste program, such provision is void. The Secretary, his designee, or other State official shall, upon receipt of notice of a decision by the Administrator that any provision of this act will result in withdrawal of program approval, certify to the Secretary of State that such provision is void. In the event that any provision of this act is voided pursuant to this section, it shall be revived only upon a subsequent reversal by the Administrator of his decision based on his determination that such provision is not in conflict with Environmental Protection Agency requirements for State program approval, or upon a reversal of the Administrator's initial decision by administrative or judicial review. The voiding of any provision of this act shall not affect other provisions of the act which can be given effect without the voided provision.

Sec. 3. This act is effective upon ratification.

In the General Assembly read three times and ratified this the 22nd of June, 1987.

ROBERT B. JORDAN III

Robert B. Jordan III
President of the Senate

LISTON B. RAMSEY

Liston B. Ramsey
Speaker of the House of Representatives

ATTACHMENT B

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE ADMINISTRATOR

In the Matter of	)	
	)	
Proceedings to Determine	)	
Whether to Withdraw Approval	)	Docket No. RCRA-SHWPAW-IV-01-87
of North Carolina's	)	
Hazardous Waste Management	)	
Program	)	

ORDER ESTABLISHING ISSUES

1. Whether North Carolina GS 130A-295.01 (the Act) unreasonably restricts the free movement of hazardous waste across the State's borders for treatment, storage or disposal?

2. Whether there is any basis in protection of human health or the environment for the Act's distinction between commercial and noncommercial facilities (only the former being subject to the Act)?

3. Whether the Act operates as a prohibition on the treatment, storage or disposal of hazardous waste in the State by facilities subject to the Act?

4. Whether there is any basis in human health or the environment for the dilution provision which, inter alia, disregards treatment and dilution that may occur in a POTW, disregards treatment levels achieved by a facility subject to the Act and applies irrespective of the quality of the discharge?

5. Whether the Act imposes more stringent requirements which have any basis in the protection of human health or the environment as authorized by § 3009 (42 U.S.C. § 6929)?

6. Whether compliance with the Act will make operation of some or all new commercial treatment facilities in the State economically unfeasible?

7. Whether the dilution provision of the Act will apply to 85% of potential sites in the State for commercial treatment facilities?

8. Whether the Act will prohibit the facility proposed in the GSX draft permit from operating at Laurinburg and will prohibit that facility and others from locating at numerous other locations in the State?

9. Whether adequate capacity for the treatment of hazardous waste at aqueous treatment facilities currently exists in North Carolina?

Dated this 3rd day of May 1989.

Spencer T. Nissen
Administrative Law Judge

APPENDIX B

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D C 20460

JUN 1 1989 0 8 JUN 1989

THE ADMINISTRATOR

MEMORANDUM

SUBJECT: Redelegation of final decisionmaking and scheduling authority in RCRA-SHWPAW-IV-01-07

FROM: William K. Reilly
Administrator

TO: Daniel J. McGovern
Regional Administrator
Region 9

This is to delegate to you, pursuant to RCRA Section 3006(e), 42 U.S.C. § 6926(e), and 40 C.F.R. 271.23(b)(3)(iv) and 271.23(b)(8), final decisionmaking and scheduling authorities, without the need for concurrence of the Assistant Administrator for Solid Waste and Emergency Response, in RCRA-SHWPAW-IV-01-07. All information directed to the Administrator under 40 C.F.R. 271.23(b)(7) should be directed to you. The prior delegation, appearing in Delegations Manual chapter 8-7 and dated March 6, 1986, continues to be in force except in regard to this proceeding.

cc: Honorable Spencer T. Nissan
Greer Tidwell
Jonathan Z. Cannon
Docket for RCRA-SHWPAW-IV-01-07
Counsel of Record, RCRA-SHWPAW-IV-01-07

APPENDIX C

After issuance of the Administrative Law Judge's recommended decision, exceptions to the decision were filed by the petitioners[1/] and by the respondents[2/].

The petitioners take exception to Summary Findings 1 through 5 and to all four conclusions. Their exceptions are based on two broad arguments:

(A) that the Administrative Law Judge's failure to examine and determine the actual purpose of Senate Bill 114 opens the door to sham legislation, and

(B) that the Administrative Law Judge's interpretation and application of RCRA's consistency requirement permits states to justify protectionist legislation.

In presenting their first argument, the petitioners argue that the Administrative Law Judge should have taken into account other instances in which the North Carolina legislature is alleged to have blocked the siting of hazardous waste management facilities and statements by individual legislators "concerning their desire to stop GSX and prevent the importation of hazardous waste into North Carolina."

After reviewing the Findings of Fact made by the Administrative Law Judge and his explanation of the legal standard (based on Fourteenth Amendment cases) that he applied, I find that he appropriately focused on formal actions taken by legislative committees and on testimony before those committees rather than on statements of individual legislators. Furthermore, his Findings of Fact 16 through 28 demonstrate the complex evolution of Senate Bill 114 during the legislative process, and petitioners have failed to show, even by emphasizing aspects of the legislative history of Senate Bill 114 favorable to their views, that the stated purpose of the legislation as it was finally enacted could not have been its actual goal.

The petitioners also dispute the Administrative Law Judge's statement that a single instance of action by the General Assembly striking down or limiting the State's authorities within the meaning of Section 271.22(a)(1)(ii) or of failure by the State to issue permits within the meaning of Section 271.22(a)(2)(i) is not an adequate basis upon which to base withdrawal of the State's RCRA program authorization.

1/ Laidlaw Environmental Services, Inc., successor to GSX, and the Hazardous Waste Treatment Council.

2/ The State of North Carolina, the Environmental Policy Institute, the Conservation Council of North Carolina, Scotland County, Robeson County, and the City of Lumberton.

Assuming arguendo that a single instance of striking down or limiting authorities might under certain circumstances be sufficient to justify program withdrawal, the Administrative Law Judge is correct in finding that no such striking down or limiting of authorities has occurred here. The Administrative Law Judge is correct that a single instance of failing to issue a permit would not justify withdrawal of State program authorization. 45 Fed. Reg. 33384 (May 19, 1980).

In presenting their second argument, the petitioners reiterate that Senate Bill 114 lacks a basis in human health or environmental protection because it does not reduce the allowable concentration of chemicals in a facility's effluent or in the receiving stream. The petitioners and the Administrative Law Judge simply disagree on this issue. The Administrative Law Judge found that Senate Bill 114 would afford additional protection if permit or effluent limits were being violated, while the petitioners disagree that any significant design or operating failures might occur that would bring the one-thousand-to-one dilution requirement of Senate Bill 114 into play. In any event, this portion of the recommended decision is dictum.

The petitioners argue that the Administrative Law Judge erred in his interpretation of what constitutes a "sufficiently reasonable" basis under Section 271.4(a) for determining that Senate Bill 114 does not unreasonably restrict, impede or operate as a ban on the free movement of hazardous waste. However, I find that the Administrative Law Judge has interpreted Section 271.4(a) and related EPA policy statements correctly.

The petitioners also argue that the Administrative Law Judge's interpretation of the phrase "act as a prohibition" in Section 271.4(b) as meaning "an outright ban or refusal to accept hazardous waste" is an incorrect interpretation of that language, because the phrase "act as" indicates that "prohibitory legislation less severe than an outright or complete ban is a matter of concern to EPA."

However, the Administrative Law Judge has correctly based his interpretation on explanatory remarks by EPA in the Federal Register which indicate that the regulation applies to complete prohibitions. 45 Fed. Reg. 33395 (May 19, 1980).

For the reasons stated above, I deny all exceptions raised by the petitioners.

The respondents urge that I adopt the recommended decision, except for the Administrative Law Judge's statement that this proceeding is not subject to the Administrative Procedure Act. This exception involves a ruling concerning ex parte contacts which was issued by the Administrative Law Judge on November 30, 1989. In that ruling he denied North Carolina's motion for

dismissal, on the grounds, among others, that the Administrative Procedure Act, which authorizes dismissal as a sanction for ex parte contacts, was inapplicable.

After reviewing the respondents' arguments, I deny their exception on the basis that it has become moot. The respondents concede that this proceeding has actually been conducted in accordance with the Administrative Procedure Act; the Administrative Law Judge's decision not to dismiss this proceeding in November, 1989 was based on additional reasons which I find to have been a sufficient independent justification for his decision; and the respondents have now prevailed on the merits. Under these circumstances, revisiting the Administrative Law Judge's decision on this subsidiary issue would be pointless.