



September 3, 1986

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TO: The Vinyl Institute Health, Safety & Environment Committee

RE: VI Draft Comments on EPA TCLP Proposal

Enclosed is a working draft of comments developed by the VI TCLP Task Force chaired by Joe King. As noted, please review and comment by September 9th.

As Peter's letter indicates, we developed this time schedule to allow the Task Force sufficient time to meet again if it is necessary to do so.

Thanks for your cooperation.

Sincerely,

Meredith N. Scheck
Assistant Director

MNS/pmb
enclosure

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August 29, 1986

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BY FEDERAL EXPRESS

Ms. Meredith N. Scheck
The Vinyl Institute
Wayne Interchange Plaza II
155 Route 46 West
Wayne, New Jersey 07470

Re: Draft Comments on EPA TCLP Proposal

Dear Meredith:

Enclosed is a working draft of comments for submission to the Environmental Protection Agency (EPA) in response to its proposal to revise the toxicity characteristic under the Resource Conservation and Recovery Act (RCRA). The draft is a composite of materials sent to me by the TCLP Task Force chaired by Joe King. The Task Force met on August 6 to develop an outline and subsequently provided various portions of these comments to me. I understand that you will be circulating the draft to the entire Health, Safety and Environment Committee. Arguments on new issues as well as additional supporting data or viewpoints on issues already addressed are sought.

As previously discussed, we would appreciate receiving comments by September 9 so that we will have time to revise the draft, meet if necessary, and submit the final comments to EPA by September 26. This should also allow time to integrate these comments with those being filed on behalf of SPI.

Joe Ledvina requested that we address the impact of the proposed TCLP characteristic on wastewater treatment in surface impoundments. In particular, RCRA § 3004(g) might operate to prohibit the use of surface impoundments

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for wastewater that is identified as hazardous under the proposal. We have not been able to integrate this into the current draft but plan to do so. This matter deserves careful consideration and any additional input from the Committee would be most welcome. Finally, copies of draft or final comments prepared by member companies or other interested groups would be helpful in finalizing our comments.

I look forward to receiving comments on the enclosed draft. If you have any questions, please let me know.

Cordially yours,



Peter L. de la Cruz

Enclosure

cc:	Joseph King	(w/encs.)
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	Robert D. Luss, Esq.	"
	John T. Barr	"
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DRAFT

EPA RCRA Docket (S-212)
U.S. Environmental Protection
Agency (WH-562)
401 M Street, S. W.
Washington, D. C. 20460

Re: Hazardous Waste Identification and Toxicity
Characteristic Revisions; Docket No. F-86-TC-FFFFF

Dear Sir:

The Vinyl Institute, a division of The Society of the
Plastics Industry, Inc. (SPI), appreciates the opportunity to
comment on proposed rules issued by the Environmental Protec-
tion Agency (EPA or Agency) under the Resource Conservation and
Recovery Act (RCRA).^{*/} 51 Fed. Reg. 21,648 (June 13, 1986

^{*/} Members of the Vinyl Institute include Air Products
and Chemicals, The BFGoodrich Company, Borden Chemical,
CertainTeed, Dow Chemical U.S.A., Georgia Gulf, ICI Americas,
Occidental Chemical, PPG Industries, Vista Chemical, and th
Vinyl Council of Canada. Members of the Vinyl Institute

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The proposed rules would change the toxicity characteristic criteria for identifying wastes as hazardous under RCRA. As discussed below, finalization of the proposal in its present form would be unreasonable.

I. STATUTORY ISSUES

A. Legislative Framework

Through this rulemaking, EPA intends to reexamine the toxicity characteristic under RCRA and satisfy a Congressional directive in the Hazardous and Solid Waste -- Amendments of

account for approximately 82 percent of the domestic production of polyvinyl chloride.

SPI, the major national trade association of the plastics industry, is a corporation organized under the Not-for-Profit Corporation Law of the State of New York. Its 1,800 member companies and individuals and 49 operating units include those who supply raw materials, process or manufacture plastics or plastic products, and engineer or construct molds or similar accessory equipment for the plastics industry. The majority of

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1984. In particular, EPA is attempting to be responsive to Sections 3001(g) and (h) of RCRA. See 51 Fed. Reg. 21,648.

Under subsection (g), EPA is directed to:

examine the deficiencies of the extraction procedure toxicity characteristic as a predictor of the leaching potential of wastes and make changes in the extraction procedure toxicity characteristic, including changes in the leaching media, as are necessary to insure that it accurately predicts the leaching potential of wastes which pose a threat to human health and the environment when mismanaged.

Subsection (h) requires that EPA promulgate regulations identifying additional characteristics of hazardous wastes, including measures or indicators of toxicity, by November 9, 1986.

The legislative history indicates that these provisions were derived from the Senate bill and adopted by the Conference Committee. H.R. Rep. No. 98-198, 98th Cong., 2d Sess. 105-106 (1984) (conference report) and S.757. The intent underlying

SPI members are the processors and converters of plastic resins into end products which represent 75 percent of the dollar volume sales of plastics in this country.

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these provisions is best described in a report by the Senate Committee on Environment and Public Works. S. Rep. 98-284, 98th Cong., 1st Sess. (1983). This report makes it clear that Congress was not attempting to direct EPA to expand the EP toxicity test under Section 3001(h). Rather, EPA was being asked to establish regulatory thresholds for hazardous organic constituents by expanding the number of hazardous waste characteristics to "bring under control those wastes which pose a carcinogenic, teratogenic, mutagenic, reproductive or neurotoxic hazard." As Senator Chafee stated when discussing the provisions which would later become Section 3001(h):

EPA has developed criteria for identifying the characteristics of hazardous waste and for determining which wastes to list. Since the initial identification of characteristics and listing of specific hazardous wastes, EPA has not expanded the set of characteristics nor added significantly to the list of hazardous wastes. Even dioxin -- one of the most toxic substances known to man -- has not been added to the list. One section of the Hazardous Waste Identification Improvement Act requires EPA within two years to identify additional characteristics of hazardous waste and add specific waste to the list of hazardous wastes.

129 Cong. Rec. S.822 (daily edition of Feb. 1, 1983) (Statement of Senator Chafee).

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The Senate discussion on the deficiencies of the EP Toxicity Procedure are also instructive. In particular, the Senate was concerned with the adequacy of the EP Toxicity Procedure used by EPA as a determinant for evaluating the hazard of wastes containing metals. For example, the Senate Report states that EPA is required to revise the EP toxicity characteristic when necessary to "reflect more accurately the concentrations of toxic metals that will leach from wastes subject to more aggressive leaching media than those used in the present test." S. Rep. 98-284 at 35.

The Senate's comments on of the need to amend th EP toxicity test is interesting because it appears at the end of a long discussion on EPA procedures for delisting wastes. Because the Senate did not consider the EPA EP toxicity procedure to be very effective for "evaluating the mobility of organic toxicants," it concluded that "any [EPA] decision to delist wastes containing these [organic] toxicants should be based on their concentration in the waste . . . ," rather than on the negative results obtained by applying the extraction procedure to the waste in question. Id.

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The legislative history leads to two conclusions. First, Section 3001(h) directs EPA to develop additional characteristics of hazardous waste and is basically irrelevant to the current proceedings. As for the EP toxicity characteristics addressed in Section 3001(g), that provision was largely intended to support the Agency policy of not using the test to evaluate the leaching potential of organic contaminants as a predicate for delisting wastes until a suitable test was developed. In particular, the Senate discussion from which the adequacy of the EP toxicity test arose, focused on the leaching of toxic metals from wastes. Therefore, the 1984 RCRA amendments provide little if any support for the Agency's undertaking here and certainly do not require compliance with the time limits imposed by those sections.

B. The Mismanagement Concept

The hypothetical waste disposal scenario which the Agency uses here as a basis for its analysis is similar to that used in the January 1986 rulemaking to prohibit the direct placement of any bulk or any non-containerized liquid hazardous waste in landfills. 51 Fed. Reg. 1,602 (Jan. 14, 1986). The Agency's central concern could be addressed more simply and

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effectively by prohibiting the placement of dilute liquid wastes into Subtitle D landfills. A statutory ban on all liquid hazardous wastes in RCRA facilities is already in operation. It is our impression that no substantial amount of dilute liquids containing Appendix VIII substances are being placed in Subtitle D landfills.

We do not see any realistic scenario under which generators of dilute liquid streams would employ the "mismanagement" scenario depicted in the EPA proposal. Rather, generators of liquid waste streams would be regulated under the Clean Water Act through the permitting system at the National Pollutant Discharge Elimination System (NPDES) or under the pre-treatment rules applicable to facilities discharging to publicly owned treatment works (POTWs). An EPA study conducted in response to Section 3018(a) of the Hazardous and Solid Waste Amendments of 1984 indicates that the Clean Water Act's regulatory programs have made substantial reduction in the discharge of hazardous pollutants to POTWs (approximately 95 percent of the metals and 50 percent of the organics) and that this regulatory plan can successfully address this environmental issue without the imposition of additional regulation under RCRA. EPA Report to Congress on the Discharge of Hazardous Wastes to

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Publicly Owned Treatment Works at 2 (Feb. 1986) (EPA/530-SW-86-004) (hereinafter "EPA Report to Congress").

The fundamental objective of RCRA is to minimize the generation of hazardous waste and to assure that when hazardous waste is generated it is properly managed. RCRA §§ 1002 and 1003. Indeed, EPA's entire program is designed to identify those wastes which are potentially hazardous and to ensure that they are properly treated, stored, or disposed of. In the current proceeding, the Agency uses as an example of mismanagement the disposal in any Subtitle D sanitary landfill of dilute liquid wastes or solid wastes from which hazardous components might leach. This conclusion of mismanagement would equally apply to waste generated from individual homes, small generators, and others who have disposed of waste previously deemed "nonhazardous" in compliance with Federal and local law. The proposal would make such disposal illegal without the development of an alternative means of disposal. It is also probable that leachate or other emissions from disposal sites would be hazardous under RCRA. This would disrupt the current land disposal program and potentially make all of them subject to listing on the national priorities list (NPL) as a cleanup site under the Comprehensive Environmental Response, Compensation-

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tion, and Liability Act (CERCLA or Superfund). Given the statutory exclusion for hazardous waste generated by individual residences or small generators, it is likely that industry will bear the burden of this cleanup through direct administrative or judicial assessments or indirectly through increased taxation without regard to the actual contribution to the waste problem.

II. TIMING

In addition to its other concerns with these proposed rules, the Vinyl Institute objects to the relatively short time period EPA has allotted for the submitting of comments and for allowing only six months from promulgation to the effective date.

The Agency has solicited comments on a proposal which has set such an extremely low Toxicity Characteristic contaminant limit for vinyl chloride (VC), 50 parts per billion (ppb), that all PVC product resins, as well as wastes, must be evaluated under the proposed Toxicity Characteristic Leaching Procedure (TCLP); and now "wastes" are to include wastewaters.

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The magnitude of this effort for VC and PVC producers in investigating what is practically the universe of their operations is so great that there is simply not enough time prior to September 26 to obtain sufficient information to make informed comments. Additional time pressure is generated by the need for PVC producers to educate their customers since they may wish to make comments on those first-grade resins they use which, if discharged as wastes, will be Hazardous Wastes.

Comments, therefore, are being made based for the most part on spot samples sent to one or the other of the FEW commercial test facilities known to be able to perform analyses under the proposed TCLP. The outcome has been to overload these facilities, further aggravating the time constraint and providing limited data for cursory evaluations which fall far short of the comprehensive characterizations required.

Other than the time needed for a plant to begin to define the scope of applicability of the proposed regulations is that required to resolve such issues as representative sampling, reproducibility of lab results, correlation of results between different test facilities, and the inherent difficulties in the proposed TCLP.

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The Agency states that a guidance document may be published on proper sampling late in 1986. Meanwhile, the regulated community must resolve for itself in the limited time remaining the matter of representative sampling: A wastewater stream which contains VC only rarely and in a random time sequence; a large polymer chunk scraped from a reactor which in a landfill will leach out many times less VC than the quantity extracted after size reduction in the proposed TCLP.

Concerning reproducibility of test results and correlation between test facilities, the Agency admits that the precision of results from the TCLP are poor and that it is repeating its evaluations. If the Agency cannot even report the test precision in its proposal, it is obvious that both the Agency and the public need more time for this deficiency to be resolved. A company in Illinois has reported in the public hearing that it sent samples to three commercial test facilities and that these could not reproduce test results.

EPA has requested comments on the TCLP itself raising the probability that it may be revised in part. We note that the Science Advisory Board has already recommended simplifying the procedure. The effect of significant revision could be

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that the time and money already spent would have been wasted and no time would be left for one to determine his status under the new procedure in order to make informed comments.

Of even greater concern to Vinyl Institute members is that the new rules are to become effective only six months from the date of promulgation. It is only on that date, the date of promulgation, that the necessary comprehensive waste stream evaluation and definitive planning for compliance can begin.

In that relatively short time span, overall site profiles must be developed to determine which product, waste, and wastewater streams are Hazardous Wastes.

They will have to address all the questions raised previously about representative sampling, precision, and reproducibility of results, etc.; the economic choice of building the apparatus for testing in-house or contracting a commercial test facility will have to be investigated.

The many elements of compliance as a Generator will have to be made ready: Training of a far greater body of the work force; expansion of Contingency Plans; physical additions

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lished in time for review and comment by the regulated community before promulgation of final rules.

Nevertheless, even in this premature RIA, EPA has made an elementary error in excluding from the estimated costs of compliance the many facilities, probably numbering in the thousands, discharging wastewaters which are apparently intended to be regulated in this proposal.

We again stress that these wastewater streams are already adequately regulated under NPDES and Pretreatment Standards, or will be shortly under Pretreatment Standards already proposed, such as those for the Organic Chemicals and Plastics and Synthetic Fibers industries (OCPSF) limiting many of the same pollutants of concern here. Very little of this type waste finds its way into Subtitle D landfills primarily because of the lack of economic incentive.

However, if EPA proceeds to regulate dilute liquid wastes, it must correct the major deficiency of considering only the costs of compliance associated with landfilling and incinerating the "new" hazardous wastes by including those of the greatly increased RCRA universe of hazardous waste wastewaters.

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The vastly increased scope and complexity of this newly regulated community will result in large part from a key aspect of the proposed TCLP, that wherein the wastewater, of low solids content, is the extract for analysis for the Toxicity Characteristic pollutants. Many Small Generators, not now regulated, will become large, regulated Generators. In-plant waste streams will have to be managed as hazardous wastes even though they may be later treated in approved ways. Water supplied from outside a plant containing pollutants in compliance with other rules could become hazardous wastes here after use for once-through, non-contact cooling.

In the VC and PVC industries, the very low threshold limit for VC, 0.05 mg/l, practically guarantees that almost all wastewaters will become hazardous wastes; these industries are already very stringently regulated under OSHA, FDA, and NESHAPS regulations and will soon also be regulated by the OCPSF Pretreatment Standard already mentioned.

The recommended cost impact study must encompass the retrofitting, and clean-out in preparation for this, of many wastewater treating systems including surface impoundments. This, along with determining the many other cost aspects of

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preparing for, achieving and continuing in compliance, will require several months of effort by EPA, but must be undertaken for development of a credible RIA.

There is another cost impact that the Agency has overlooked, and this is probably an unforeseen consequence of its having set the extremely low regulatory limit of 0.05 mg/l for VC. This is the compliance costs for both PVC Producers and PVC Processors for management of dry resin first grade and off-grade saleable products when these are spilled and otherwise rendered unfit for sale and use in today's marketplace.

From the limited and unverified TCLP test results obtained in the relatively short time span of the comment period has emerged the realization that even these "pure" materials will come under the RCRA umbrella. Although we have no accurate estimate of the quantities of these wastes, we believe the costs of compliance will be significant and disproportionately high.

Such wastes are not landfilled in Subtitle D landfills and will now have to go to Subtitle C landfills at considerably greater costs. Retrofitting a landfill for such disposal will

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be equally costly. In addition, of course, will accrue the many other increments of cost for compliance with the Generator requirements: Training, inspection, storage, packaging, manifesting, financial liability coverage, etc.

Although the long-term future effects are not clear, PVC Producers cannot rule out the possibility that the market for their products may shrink when PVC Processors switch to other materials rather than be burdened with the costs and complexities of operating in the RCRA system.

The Agency should include in its final RIA the results of a comprehensive study of the costs for PVC Producers and PVC Processors to manage resin wastes under the proposed rule.

We believe that when the Agency completes the additional studies suggested, and required for a credible RIA, the results will be of such significance that it cannot avoid a complete re-evaluation of its position on the cost impact of the proposed regulations.

In this proposed rulemaking, EPA has adopted a concept of "mismanagement" of wastes which we believe is highly questionable and for which we can find no reference in the Statutes, specifically Section 3001(h).

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EPA has then used a version of its risk assessment procedure, proposed in 1984 but not yet made final, and added "worst case" assumptions for establishing regulatory pollutant concentration limits despite the prohibition in Executive Order 12498 against using worst case analysis as a basis for rule-making.

Finally, EPA has chosen as the object of risk a lon well water user ingesting, over 70 years, 2 liters per day of water from the same well perceived by EPA to be contaminat d from Subtitle D landfill leachate, infinitely, in this worst case analysis. Using this procedure rather than the usual study of hazard to a known, potentially-exposed population has resulted in EPA's proposing insupportably low toxicity characteristic threshold limits.

Even under its questionable definition of mismanagement, however, EPA has not shown a need for this rulemaking as required by Executive Orders 121291 and 121498. The benefits addressed in Section VII of the proposal are not reasonably based. EPA has not demonstrated the hazard of damage to human health posed by its scenario of mismanagement of the 52 c ndi-

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date characteristic pollutants. We maintain that some proof of harm at the regulatory thresholds must be shown for each substance.

Since there is no demonstrated health-based need for the proposed rules, there can be no health-based benefit. EPA should assess what health effects there may be from ground water contamination of the potentially-exposed population before deciding if and where its toxicity characteristic applies.

IV. GROUNDWATER MIGRATION SCENARIO

The Agency assembled a collection of worst cases and absolute worst cases into an hypothesized scenario to depict the results of mismanagement of the wastes under consideration. EPA fails to consider the probability that any one individual assumption may be correct, or that the entire series could actually occur. Despite this, the Agency combines this result with the "upper plausible limit" risk assessment or some other health datum to back calculate a threshold regulatory level for the candidate waste or constituent. This compound of conservatism is not accepted by the main stream of the scientific community and has been criticized frequently by EPA's own Science

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Advisory Board. A recent example is an SAB letter to the Administrator dated April 8, 1986 and designated as SAB-EHC-86-018, in which the Board again offered its assistance in improving the accuracy and credibility of the Agency's work product. It also again expressed its position that worst case analyses alone are not properly descriptive of the situation.

The SAB position is consistent with the instructions given to the Agency by Executive Order 12498, which directs the use of best estimates and requires that the proposed cure not only be a real cure for a real symptom, but also be better than the illness. The Agency has followed none of these instructions in this rulemaking.

The choice of disposal in a Subtitle D landfill for candidate-containing substances as the worst case mismanagement scenario is in error. Placing such substances in municipal landfills is legal and the public at large is directed to do so by Subtitle D of RCRA, as are all industrial generators of solid waste not captured by the hazardous waste provision of RCRA. To put them elsewhere would be a violation of both federal and local laws.

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The assumptions that certain specific leaching conditions will exist, that the leachate will enter a potable aquifer at an arbitrarily-determined strength, and exist undiminished in perpetuity is indefensible. Each of the steps (and the other conditions necessarily associated with these major named assumptions) has a very small chance of occurrence. All of them happening just as assumed has no reasonable probability of occurrence. Among other things, it is assumed that the Agency will be derelict under all of the applicable laws, will not detect the contamination of the aquifer or the sol source well, and will fail to provide either remedial action or alternative water supplies, and that the consumer will choose to drink this supply exclusively for an entire lifetime. There can be no rational expectation that such a series of events could occur.

It is our understanding that the Agency has abandoned this scenario for the now-reconsidered January 1986 Land Ban Proposal. We trust that this same conclusion will be reached here. We agree with the written reports we have seen that the Agency has concluded that mismanagement is the failure to apply the most appropriate management for a particular waste. There are many appropriate management scenarios provided under

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RCRA, including Subtitle D landfills. We urge the Agency to address the concept of case-by-case determination of adequate management, rather than a generalized hypothetical scenario of no reasonable probability.

The Agency apparently is unaware of the enormous amount of materials required to produce the postulated results. Just the concept of the infinite source (a source capable of producing a constant volume and concentration of leachate for at least 70 years) requires a waste source larger than it is possible to find in this nation.

Consider the scenario of a very large consumer of PVC. We do not believe that there is any single site facility which purchases as much as 100 million pounds per year. Of that, less than 1%, or 1 million pounds would be disposed of to the land. The current Plastic Pipe Institute/National Science Foundation voluntary standard for potable water pipe is 2 ppm. Generally, manufacturers of PVC supply resin of that residual or less to avoid analysis of the finished product. Therefore, there would be a maximum of 2 lb/yr available for disposal to ground at this large facility. That is inadequate to supply an infinite source, even if all of it went directly to a single aquifer, which it would not.

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Similarly, a large (10MM lb/hr) consumer of vinyl chloride-containing latex at the usual shipping residual of 5 ppm, would, if 1% were disposed of as waste, contribute a maximum of 0.5 lb/yr to the environment. That is not an infinite source, yet 5 ppm residual latex would be, under this proposal, a hazardous waste, and so would the washwater coming from the washout of the process equipment in which it was used.

A similar case can be made for the PVC plant which produced these products. Industry data shows that less than 2 lb. of wastewater is generated in the production of each pound of product, and that the combined wastewater stream to the water treatment system contains about 0.5 ppm VC, or a total of about 600 lb/yr from a world scale 300 MM lb/yr PVC plant. Agency data contained in Tables 4-5 and 4-7 of EPA Report to Congress (EPA/530-SW-86-004) state that an estimated 95% of this is removed in the wastewater treatment system and that no more than 5%, or 30 lb/yr is sent to the receiving stream. Although we have used a 95% figure for these calculations, actual removal rates at POTWs were 99.8% so the amount of vinyl chloride remaining after wastewater treatment is correspondingly less in the real world. See Table 4-2 of the EPA Report.

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Thirty pounds a year in a river is not an infinite source, nor does it pose a significant risk to the users of that stream, who far outnumber the sole user of the contaminated well of the Agency scenario. Yet, this proposal would deem that wastewater stream hazardous, and along with it, the net resin solids and the sludge from the waste streams in that plant.

Such streams are not, in fact, hazardous to either the environment or human health, because they are being disposed of properly, including the use of Subtitle D landfills where appropriate. Bringing them under the control of RCRA by redefining this altogether proper management program as mismanagement will neither be a wise application of Agency or societal resources nor will it measurably benefit the environment or human health. The Agency has presented no data to support such a proposal. Its own data, as contained in the recent report to Congress referenced above, strongly supports not listing these wastes as hazardous.

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The method by which the Agency arrived at the proposed regulatory level for vinyl chloride is inappropriate. The Agency produced a Recommended Maximum Concentration Level (a nonenforceable goal) for vinyl chloride of zero, based on the Agency policy of zero risk, a policy which both present and immediate past Administrators have stated repeatedly is unattainable, and, in fact, socially undesirable in the long run. See, for example, the article by W.D. Ruckelshaus entitled, "Risk, Science, and Democracy," which appeared in the spring 1985 issue of Issues In Science and Technology, and the comments made by Administrator Thomas at the National Conference on Risk Communication, January, 1986. The propriety of zero MCLs are now being litigated.

Nevertheless, the Agency did set a zero RMCL at 40 C.F.R. Part 141. See 40 Fed. Reg. 46,880. It then proposed a Maximum Concentration Limit of 1 ppb. 50 Fed. Reg. 46,903. This is an enforceable limit on public drinking water supplies, and was set "as close to the RMCL as feasible." This proposal then took that number, which is based on technology and includes a number of arbitrary safety factors adopted from a NAS report of several years ago, and multiplied it by an arbitrary groundwater dilution factor to arrive at a "health-

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based" allowable exposure of 14.4 ppb. The scientific justification for that conclusion is not presented. It then multiplied that number by a factor to make it quantifiable and enforceable, and arrived at the final proposed regulatory limit of 50 ppb. Nowhere are health considerations, science, or human experience factored into the procedure.

We, therefore, cannot support the use of MCLs in general, nor that for vinyl chloride, in particular, as a basis for a purportedly health-based rulemaking.

The fact is, that despite predictions by the Agency of up to 20 cancer cases per year among those persons residing within a 5-mile radius of VC/PVC producing facilities (Anderson, Risk Analysis, 3 277 (1983)) and serious attempts by the Agency and the Centers of Disease Control to locate such victims (see the attached Vinyl Institute document, "Community Health Effects of Vinyl Chloride," 18 July 1986, for further details and references), there is no evidence that any person in the general population has been harmed by exposure to vinyl chloride in the more than 50 years of industrial use.

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The "plausible upper limit risks" of the Agency no longer are plausible in the absence of some confirmation over a half century, and the use of such unsupportable assumptions in rulemaking cannot be defended on scientific grounds.

There is a statutory Reportable Quantity of 1 lb. for vinyl chloride under CERCLA. The Agency has not yet gotten around to the mandate under that 1980 statute to set consider d levels for the RQs of various substances not covered by the Spill Provisions of the Clean Water Act, so the statutory 1 lb. limits still stand.

The Agency did, however, produce a joint report in 1985 by the Cancer Assessment Group and the Office of Health and Environmental Assessment Group, EPA/600/D-85/040, in which it found vinyl chloride to be a weak carcinogen and recommended that the RQ be raised to 100 lbs. See also the Agency r port EC AO-CIN-R245, August 1983, for more background data. Th Agency has stated (50FR13456) that an RQ is not deemed a harmful quantity of a hazardous substance, but is the size of spill or release of which it wishes to be informed so that it might consider whether federal action might be required. Most of the RQ values are derived from local acute impact on the biota of

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receiving streams. The listing of wastes as hazardous automatically makes them subject to these CERCLA spill reporting limits.

Any vinyl chloride-contaminated wastewater which contains the regulatory threshold concentration of 50 ppb will, therefore, have to be reported to the National Response Center if a spill or nonpermitted release of greater than 2.37 million gallons occurs during any 24-hr. period. If PVC resin of 2 ppm residual monomer content is listed as a hazardous waste, then any spill of over 500,000 lb, or one thousand 50-lb. bags, or 20 25-thousand pound truckloads, or three jumbo railcars, are released to the environment and cannot be recovered. Similarly, a 5 ppm latex spill must be reported at only 24,000 gallons, 8 truckloads, or 470 50-gallon drums.

We do not expect to be required to report many waste releases of this magnitude. It is worthy of note, however, that it does require such a quantity of these streams before the Agency even wishes to be notified by a release under CERCLA. Of course, if the Agency proposal to raise the RQ to 100 lbs. is adopted, the relevant figures become 237 million gallons of wastewater, 50 million lbs. of resin, and 2.4

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and changes in plants for containment, temporary storage, labeling, or signs; arranging for financial liability coverage; etc.

At least a preliminary engineering study for some waste management will have to be made for a decision on whether to ship a waste off-site after the effective date or to accept the many requirements of becoming a Treating, Storage, or Disposal Facility operator.

Finally, Part A Permit applications must be filed and capital programs prepared for those plant additions and changes required for compliance with the final rules.

III. COST CONSIDERATIONS AND BENEFITS

In Section VII of this notice, the Agency admits that its analysis does not directly provide an estimate of the impact of the proposed rules, but that the final Regulatory Impact Analysis (RIA) which will accompany promulgation of the regulations will analyze benefits and costs based on them. We find this delay to be in direct opposition to the intent of the RIA process and maintain that a completed RIA should be pub-

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million gallons of latex. When looked at from this perspective it is difficult to consider the proposed regulatory levels as serious representations of significant health concerns.

Vinyl chloride is a very strictly regulated substance. Every facet of its manufacture, use, and disposal already is regulated on a federal level, with many states and municipalities having additional or more strict rules of their own. Aside from the general photochemical pollutant rules and other such nonspecific regulations, vinyl chloride is regulated by the following specific standards:

- OSHA - Occupational Exposure Standard 29CFR1910.1017. Limits occupational exposure to 1 ppm TLV regardless of the use of respirators. Requires very close control on emissions and waste streams to achieve this limit.
- EPA - NESHAPS 40 C.F.R. § 61.60 et seq. Work practice, administrative, and engineering controls on manufacture of VC and PVC. Point sources, fugitives, and wastewater streams all are regulated.

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CERCLA 40FR302.4. Interim statutory reportable quantity of 1 lb.

SDWA 40CFR141. RMCL of zero, proposed MCL of 1 ppb.

CWA. Priority pollutant under Sec. 307(a), which calls for special considerations under permitting actions.

RCRA. Hazardous waste in Appendix VIII, and several wastes from the production process are listed wastes.

FDA - The Food and Drug Administration has proposed rules at 51FR4173 which will limit residual VC in food-contact applications to the 5-10 ppb range.

The only reason the Agency has given for including vinyl chloride in this list of candidates is that it had data available that allowed it to employ the (now abandoned) land ban groundwater migration scenario to calculate a regulatory threshold. It did not show any current health problems nor did it claim any health or environmental benefit from this proposal.

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The only claim of societal benefit of any type is from reduction of cleanup costs of contaminated groundwater should such contamination occur and should it be cleaned up. It did not suggest that there would be any health benefits from that cleanup, nor any environmental improvement.

In view of the complete lack of any showing of current or future health or environmental problem, and no claim of future health benefits, as well as in view of the total absence of scientific justification for, or epidemiological support of the postulated health risks from environmental exposure to vinyl chloride, we believe that the present rules and standards are adequate to provide ample protection from potential releases of or exposure to vinyl chloride.

VI. SURFACE IMPOUNDMENTS AND WASTEWATER

EPA has not adequately considered the regulatory impact of the TCLP on surface impoundments, especially wastewater treatment impoundments. No wastewater in the PVC/VCM industry contains less than the TCLP threshold of 0.050 mg/l vinyl chloride. As a result, every wastewater or stormwater impoundment in the industry will become subject to Subtitle C. The

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scenario is similar for refineries, and facilities producing organic chemicals, pesticides, and pharmaceuticals that use or produce compounds on the TCLP list.

The regulatory impact of TCLP on surface impoundments is not addressed in the preamble. EPA must estimate the number of impoundments affected by this rule and the cost of retrofit. At a cost of \$1.0MM per impoundment (which we believe to be low), U.S. industry could spend billions of dollars cleaning out and retrofitting or replacing impoundments that have a miniscule impact on the environment.

As EPA is aware, 40 C.F.R. § 261.4(a)(2) exempts wastewater discharges subject to Section 402 of the Clean Water Act, the so-called NPDES exemption. This exemption will allow discharges of wastewater exceeding the TCLP to enter the environment. Although we have no precise numbers on volume, this likely amounts to billions of gallons a day. Much of this volume is discharged into waters used for drinking.

Ironically, the proposed TCLP will require facilities with surface impoundments to expend huge resources eliminating leaks yet, the volume of water entering the environment from

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leaking surface impoundments is orders of magnitude less than from surface discharges. There is no logic to this. EPA must provide language that exempts surface impoundments from Subtitle C in all but worst case situations. The Vinyl Institute has three suggestions on how this could be accomplished.

First, since groundwater contamination from surface impoundments is a long-term phenomena, allow the regulated community to use an annual average to determine if a wastewater exceeds a TCLP threshold. This will also mitigate the wide analytical variability in TCLP results observed by EPA.

Second, revise the regulation such that the contents of a surface impoundment is what determines whether Subtitle C applies rather than what is entering the impoundment. This is logical since any leakage from the impoundment will be essentially the same as the average concentration in the impoundment. Unless this is allowed, EPA will be faced with the embarrassing situation of requiring expensive leak prevention measures to control a few gallons per day of leakage while allowing what doesn't leak to be discharged to the environment under the NPDES exemption.

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Third, revise the regulations so that the "aggressive biological treatment facility" retrofit exemption (HSWA, Section 3005(j)(3)) can be used for surface impoundments. HSWA currently requires that owners of surface impoundments wanting to apply for the exemption must apply to the administrator by November 8, 1986. The TCLP regulations affecting surface impoundments will not be promulgated by that date. Section 3005(j)6A allows facilities time to upgrade their surface impoundments but does not provide for the "aggressive biological treatment facility" exemption. Certainly this was an oversight by Congress and a review of the legislative record would make it clear that biological systems becoming subject to Subtitle C after November 8, 1986 should be allowed to use this exemption. We suggest the affected industry be allowed a year after promulgation of a new regulation to notify the Administrator of its intent to use the "aggressive biological treatment facility" exemption.

We also believe it was Congress' intent that facilities which qualify for the "aggressive biological treatment facility" exemption to be exempt from all of Subtitle C, including permitting requirements. EPA should make that intent explicit in its regulatory revisions.

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VII. CONCLUSIONS AND RECOMMENDATIONS

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