

Subject Matter Code: E-01c01 \$100M Threshold

Comment ID: CTR-034-003

Comment Author: SCAP

Document Type: Trade Org./Assoc.

State of Origin: CA

Represented Org:

Document Date: 09/25/97

Subject Matter Code: E-01c01 \$100M Threshold

References: Letter CTR-034 incorporates by reference letter CTR-035

Attachments? N

CROSS REFERENCES

Comment: LEGAL ISSUES - Executive Order 12866, Unfunded Mandates Reform Act, Regulatory Flexibility Act

* SCAP disagrees with EPA's assertion that the CTR is not a significant regulatory action under Executive Order 12866. We believe that the potential costs of complying with NPDES permit limits based on the CTR criteria alone could far exceed the \$100 million threshold. The CTR can also be considered a significant rule because it will "materially affect" one or more sectors of the economy, it will adversely affect local governments, and it is significantly different from other federal regulations previously promulgated in California.

Response to: CTR-034-003

See response to CTR-021-005c.

Comment ID: CTR-035-044a

Comment Author: Tri-TAC/CASA

Document Type: Trade Org./Assoc.

State of Origin: CA

Represented Org:

Document Date: 09/25/97

Subject Matter Code: E-01c01 \$100M Threshold

References:

Attachments? N

CROSS REFERENCES E-01d01

J

Comment: pp. 42188-42189 - Potential Costs Do Not Meet the \$100 Million Threshold Under E.O. 12866 (also see discussion above) As noted on p. 42188, one component of the definition of a "significant regulatory action" is that the rule may have an annual effect on the economy of \$100 million or more. EPA states on p.42189 that "the annualized potential costs that direct and indirect dischargers may incur as a result of State implementation of permit limits based on water quality standards using today's proposed criteria are estimated to be between \$15 million and \$87 million." We believe that this range significantly underestimates the potential costs that may be realized from the implementation of this rule. This belief is based on the numerous assumptions used by EPA that would have served to underestimate

potential costs, including assumptions about regulatory flexibility that are clearly contradicted in the Preamble to the rule itself. These issues are further enumerated in Attachment 2, which contains an analysis prepared by the environmental economics firm, M. Cubed. Furthermore, we strongly believe that EPA has a duty to look at a full range of potential costs that may be incurred, and not just to look at the costs under optimistic assumptions. This duty is especially acute in light of the uncertainties of how the CTR will be implemented by the State.

We examined the potential costs for the POTW sector to determine the reasonableness of EPA's cost estimates. Our preliminary analysis indicates that for 23 major POTWs the annualized costs could reach \$400 million>(*3) This estimate includes the cost to construct and operate end-of-pipe treatment processes where these would be necessary to achieve projected effluent limits. Unlike the EPA cost estimates, we have assumed that regulatory relief options may not be available, and that, based on the pollutants causing compliance problems, pollution prevention and treatment plant optimization might not be sufficient to reliably achieve compliance. Thus, we feel that this estimate reflects a more accurate depiction of the potential POTW "high-end" compliance costs that could result from the draft CTR. Based on this analysis, we believe that EPA should re-analyze the potential costs for POTWs to meet water quality-based effluent limits based on the criteria in the CTR.

As noted on p. ES-2 of the Economic Analysis (U.S. EPA, 1997a), EPA estimated only the costs to point sources, and did not estimate the potential costs for compliance for nonpoint source dischargers, despite the fact that the majority of water bodies in California are impaired due to nonpoint source discharges (SWRCB, 1996). In addition, EPA failed to estimate the costs of compliance for wet weather dischargers, such as municipal and industrial stormwater dischargers. These omissions also lead us to believe that the potential total costs of the rule are far greater than \$100 million. EPA must correct these deficiencies and redo the Economic Analysis.

(*3) Backup information for these cost estimates is available upon request.

Response to: CTR-035-044a

See response to CTR-021-005c.

Comment ID: CTR-035-056b
Comment Author: Tri-TAC/CASA
Document Type: Trade Org./Assoc.
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: E-01c01 \$100M Threshold
References:
Attachments? N
CROSS REFERENCES E-01c02
E-01p

Comment: Introduction

On behalf of CASA and Tri-TAC, M.Cubed reviewed the U.S. Environmental Protection Agency 's

(USEPA) Economic Analysis (Analysis), as well as the report's underlying benefit and cost data and analyses. M.Cubed's overall reaction is that policy makers and the regulated community can place little confidence in either the benefit or cost analyses -- the uncertainties and broad assumptions contained in these analyses largely undermines their findings. Based on the information provided by USEPA, M.Cubed's judgement is that the proposed California Toxics Rule (Rule) will result in multi-million dollar annual costs -- and have substantial impacts on individual publicly-owned treatment works (POTWS) and dischargers -- and may result in no noticeable benefits to public health or the environment. A critique of specific weaknesses in the cost and benefit analyses is provided below.

Weaknesses in Overall Report Findings

The Analysis' overall findings exhibit a number of flaws, as follows:

USEPA's estimates indicate that Rule costs outweigh benefits, both on an annualized and present value basis. USEPA's claim that comparison "...of both annualized benefits and costs and discounted benefits and costs indicates that the monetized benefits of the CTR are of the same general magnitude as the costs" is simply not true (U.S. EPA, 1997a, page 9-2). For example, using USEPA's comparison of a twenty-year phase-in of benefits at a 3 percent discount rate against a ten-year phase-in of costs at a 7 percent discount rate, or benefits of between approximately \$20 to \$600 million against costs of about \$180 million to \$1 billion (setting aside the significant weaknesses in the analysis; differences in the probabilities of low or high outcomes; and questions over the appropriate discount rate to apply)(*2) indicates a low cost scenario which is nine times higher than the estimated benefits, and a high cost scenario which is almost twice as high as benefits.(*3)

Executive Order 12866, which requires the economic review, defines "significant regulatory action" as one that is likely to "adversely affect ... a sector of the economy." Yet, although the USEPA finds that two sectors will incur the majority of the regulatory costs POTWs and chemical/petroleum products -- it provides no analysis of whether or not these costs are "significant" to these sectors. Likewise, USEPA does not examine the potential costs or their implications to small businesses (e.g., health care providers; automobile repair shops), small communities, or non-significant industrial users (SIUs) in general (i.e., industries that are regulated by POTWs through local ordinances, rather than under federal rules)

USEPA's conclusion that the use of different risk levels would not significantly influence compliance costs is not supported by its data. Based on USEPA's own data, use of a 10E-5 risk level for carcinogens would induce a 25 percent cost savings relative to a 10E-6 risk level under the low cost scenario, with a 3 percent change in pollutant loadings.(*4)

(*2) Noticeable benefits seem unlikely to emerge in the near term, if at all, due to the persistence of existing contaminants in the environment, while costs will be incur-red over one to two decades. Use of a lower discount rate for benefits would reflect the greater value future generations may place on environmental amenities, an assumption which is open to debate.

(*3) The large differences between benefits and costs is mirrored by the wide range in estimated pollution reduction. Under USEPA's low scenario, only.63 million toxic pounds- equivalent are expected to be reduced under the rule, compared to a high scenario reduction of 7 million pounds equivalent. That is, reductions under the high scenario are eleven times higher than under the low scenario.

(*4) Under the high cost scenario cost reductions are less than 1 percent, with a 7 percent change in pollutant loadings.

Response to: CTR-035-056b

See response to CTR-021-005c.

Comment ID: CTR-045-013
Comment Author: Sausalito-Marín Sanitary Dist.
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: E-01c01 \$100M Threshold
References:
Attachments? Y
CROSS REFERENCES

Comment: The proposed regulation is a significant regulatory action because it may well impose costs that are greater than \$100 million per year on the regulated community, the majority of which are local public agencies. Regardless of the dollar amount, it is likely to adversely affect in a material way the economy, the environment, or local governments.

Response to: CTR-045-013

See response to CTR-021-005c.

Comment ID: CTR-066-017
Comment Author: Delta Diablo Sanitation Dist.
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: E-01c01 \$100M Threshold
References:
Attachments? N
CROSS REFERENCES

Comment: The areas with which we find concerns and the requested changes include the following:

* The proposed CTR is a significant regulatory action because it will impose costs that are greater than \$100 million per year on the regulated community, the majority of which are local public agencies. Regardless of the dollar amount, it is likely to adversely affect in a material way the economy, the environment, or local governments.

Response to: CTR-066-017

See response to CTR-021-005c.

Comment ID: CTR-082-011
Comment Author: City of Burbank
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: E-01c01 \$100M Threshold
References:
Attachments? N
CROSS REFERENCES

Comment: The subject rule has a significant impact on our facility discharge and the citizens of the City. We therefore present the following comments for your consideration to re-open the comment period for this rule in order to facilitate a more complete review by public and in particular by those in the POTW community:

* It should be noted that proposed regulation is a significant regulatory action, because it may well impose costs that are greater than \$100,000,000 per year on the regulated community. Regardless of the dollar amount, it is likely to adversely affect in a material way the economic environment a local government.

Response to: CTR-082-011

See response to CTR-021-005c.

Comment ID: CTR-084-002a
Comment Author: City of Redding
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: E-01c01 \$100M Threshold
References:
Attachments? N
CROSS REFERENCES S

Comment: ISSUES OF CONCERN

The Unfunded Mandates Act of 1995, 62 FR 42191. The City of Redding disagrees with the conclusion that the proposed rule does not result in expenditures by state or local governments in aggregate of \$100 million or more in any one year. The strict water quality criteria in the proposed rule would directly cause the state to adopt more stringent standards for dischargers, which would then require the local dischargers to implement exorbitant and costly measures against our users.

Regarding unfunded mandates, the City of Redding believes that the state and local governments would have no alternative in implementing this federal rule than to enforce exorbitant and costly measures

against our users. Therefore, the proposed rule would directly cause significant burden and costs to state and local governments.

Response to: CTR-084-002a

See response to CTR-021-005c.

Comment ID: CTR-096-003a
Comment Author: City of Modesto
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: E-01c01 \$100M Threshold
References:
Attachments? N
CROSS REFERENCES J-05

Comment: Thank you for the opportunity to comment on the proposed California Toxics Rule. The City's comments are related to five main concepts:

3. The cost implications of these numerical standards are estimated to exceed \$100 million to the City of Modesto alone, thereby triggering the President's Executive Order 12866 requiring a more detailed and comprehensive cost-benefit assessment of these proposed standards.

Specifically, the City submits the following comments:

E. Under the proposed rule, Best Management Practices (BMPS) are recommended for compliance with the California Toxic Rule. BMPs may include a variety of processes. Each of these processes may have an associated construction and operation cost. For the City of Modesto, due to the design of the wastewater and stormwater collection systems, it may cost between \$25 million to \$50 million to construct acceptable BMPS. Existing BMPs may not reduce the pollutant level below that listed in the proposed CRT. Therefore, it is our opinion that construction costs presented in the California Toxic Rule are significantly under estimated. Constructed treatment facilities for wastewater and storm water, beyond BMPS, could exceed \$1 00 million for Modesto alone. In addition, annual operation and maintenance costs for BMPs and treatment facilities exceed \$1,000,000.

In summary, the proposed regulation is significant because it may well impose costs that are greater than \$100 million per year on the regulated community, the majority of which are local public agencies. Regardless of the dollar amount, it is likely to adversely affect, in a material way, the economy, the environment, and local governments.

Thank you in advance for consideration of my comments on the CTR.

Response to: CTR-096-003a

See response to CTR-021-005c.



Subject Matter Code: E-01c02 Bnfts do not Balance Cost

Comment ID: CTR-005-005

Comment Author: Novato Sanitary District

Document Type: Sewer Authority

State of Origin: CA

Represented Org:

Document Date: 09/23/97

Subject Matter Code: E-01c02 Bnfts do not Balance Cost

References:

Attachments? Y

CROSS REFERENCES

Comment: 4. The economic analysis is seriously flawed. The major flaws include: (1) failing to do an appropriate sampling of dischargers having little or no dilution; (2) assuming in the high-end cost scenario that a 25% reduction could be achieved through source control and an additional 25% achieved through treatment plant optimization without capital improvements; (3) constraining estimates of potential costs through key assumptions, including the assumption that regulatory relief from the rule would be granted if costs were in excess of certain thresholds; and (4) exaggerating estimates of potential benefits by assuming an end (i.e., achievement of the proposed water quality criteria) that will not result from the rule. The result of these flaws is that potential costs are greatly understated and potential benefits are greatly overstated.

The District's analysis demonstrates that actual costs may be an order of magnitude greater than EPA's \$500/lb threshold and the benefits may be nil. A further consequence of the flawed economic analysis is the conclusion that the CTR is not a major rule (i.e., one which will result in excess of \$100 million per year expenditure) subject to Presidential Executive order 12866 and the Unfunded Mandates Reform Act or a rule that affects small entities protected under the Regulatory Reform Act. For example, the District serves the City of Novato which has a population under 50,000 and would be greatly impacted by the proposed rule.

Response to: CTR-005-005

See responses to CTR-005-004, CTR-054-013a, CTR-021-005c, CTR-040-029a, and CTR-042-007a.

The standards established in the CTR apply to certain California waterbodies. EPA currently only applies water quality based effluent limits to point sources, and thus the estimate of post-regulation cost reflects only the potential impact of controls on point sources. EPA's benefits analysis is based on an assumption that other controls may also be required of other sources in the future (e.g., under state of law for non-point sources). As controls on other sources are implemented (e.g., remediation of contaminated sediments; best management practices to control storm water discharges, EPA expects that concentrations in fish tissue will decline further and that the standards established by the CTR to protect human health can be achieved.

EPA also believes that the risk reducing impact of the regulation on point sources may not be fully illustrated by EPA's analysis which is based on only a small sample of point source dischargers. Baseline risk levels are based on actual fish tissue concentrations, post-regulation risk levels are estimated by examining the potential for reducing loadings at a sample of facilities. Pollutants responsible for much of the baseline health risk at specific sites, such as popular fishing areas in San

Francisco Bay, may be found in point source effluents, however, the facilities discharging these pollutants may not be included in the sample and, thus, EPA's analysis may underestimate the risk reduction impact on point sources.

Comment ID: CTR-029-004a
Comment Author: Center for Marine Conservation
Document Type: Environmental Group
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: E-01c02 Bnfts do not Balance Cost
References:
Attachments? N
CROSS REFERENCES E-02e

Comment: The Center for Marine Conservation (CMC) is a nationwide, nonprofit advocacy group dedicated to the conservation and enhancement of coastal and ocean life and resources. CMC submits these comments on behalf of its 16,000 members in California and over 120,000 members nationwide.

CMC applauds EPA's efforts to bring California into compliance with the Clean Water Act 303(c)(2)(B). Implementing numeric criteria that will protect the beneficial uses of California's waters is of great importance to the health of coastal and marine ecosystems, and so to CMC and its members. The reliance in many areas of the state on narrative criteria threatens the health of most of the state's waters, thereby impacting both human health and the health of the state's economy that relies on clean water.

While CMC strongly supports the swift adoption of an Enclosed Bays and Estuaries Plan and an Inland Surface Waters Plan that contain numeric criteria for toxic pollutants, CMC also is concerned that many of the specific criteria contained in the proposed rule are weaker than those contained in published guidance. CMC also believes that the proposed rule can better protect certain subpopulations from harm caused by consumption of contaminated fish and shellfish. Finally, CMC is concerned that the economic analysis of the proposed rule over-emphasizes costs and under-reports the many benefits of improving water quality throughout the state. These three points are reviewed below.

The Proposed Rule's Economic Analysis Over-Emphasizes Costs and Under reports the Benefits of Improving Water Quality Throughout the State

By EPA's own admission, the proposed rule's economic analysis over-reports costs and under-reports benefits. Specifically, the proposed rule states that "cost estimates for both scenarios, but especially for the high-end scenario, may be overstated because the analysis tended to use conservative assumptions."(*8) Conversely, "numerous categories of potential or likely benefits have been omitted" from the analysis, and these omitted benefits "are likely to be significant contributors" to an "appreciable underestimation" of the overall benefits of the rule.(*9) Categories left out of the benefits analysis include improvements in water-related, non-fishing recreation, improvements in land recreation, and improvements in human health resulting from reducing non-cancer risk.(*10)

CMC believes it is possible to quantify many of these omitted benefits to obtain a more accurate picture of the importance of this rule. For example, a recent Santa Monica Bay Restoration Project Study found that people swimming close to storm drains face a 50% increase in their risk of contracting a variety of

non-cancer ills such as gastroenteritis and ear and other infections. At a minimum, EPA's analysis could capture the benefits of improved water quality in terms of avoided sick days and avoided medical costs for such users.

CMC also believes that the economics analysis should consider other categories of benefits not mentioned at all in the proposed rule. For example, Governor Wilson's March 1997 planning document, California's Ocean Resources: An Agenda for the Future, finds that industries that depend on healthy coastal and ocean waters contribute \$17.3 billion to the state's economy each year and support 370,000 jobs. The majority of this total, \$10 billion, is from tourism, which is not mentioned in the proposed rule but which could benefit greatly from improved water quality. Such omitted benefits should be examined in order to have a more balanced economic analysis.

The adequacy of the proposed rule's economic analysis is important to the long-term implementation of the rule. As reported by EPA, "[t]he allegation that the State did not sufficiently consider economics when adopting Water quality objectives ... was an important issue in the litigation" that resulted in the rescission of the Enclosed Bays and Estuaries Plan and the Inland Surface Waters Plan>(*11) Moreover, an accurate description of the benefits of the proposed rule is critical to obtaining funding and public support for swift implementation of the numeric criteria. CMC thus requests that the benefits analysis be updated where possible to parallel the acknowledged "conservative" approach used in estimating the costs of the proposed rule.

(*8) Id. at 42189.

(*9) Id. at 42190.

(*10) Id.

(*11) Id. at 42165.

Response to: CTR-029-004a

The benefits of water quality improvements are highly site specific and difficult to monetize due to limitations in benefits methodology and accurate data on society's values for these improvements. For example, there are currently few means of linking consumption of toxic contaminants by humans with cases of systemic effects (as opposed to cancer effects, for which dose-response curves have been estimated). As another example, the contingent valuation (CV) is the only method for estimating passive use values, and CV surveys require substantial resources to conduct. As a result, there is limited data and information with which to estimate the benefits of the proposed rule. Since these values are not known, a parallel conservative approach is not possible. EPA presented the information on the limitations of the analysis (e.g., costs may be overstated and benefits may be understated) to assist decision makers in evaluating the results.

Illnesses contracted from swimming, such as those evaluated in the study of storm water drains in Santa Monica Bay, typically result from exposure to pathogens that will not be regulated under the CTR. Noncancer effects from the toxic pollutants that will be reduced by the rule are difficult to quantify because of a lack of information on the link between concentrations in the environment and potential cases of systemic effects.

EPA's analysis does not cover all benefit categories as the commenter notes, however, the evaluation of

all categories of benefits in a constructive manner is beyond the scope of this analysis, thus EPA has done the best possible analysis given the time and budget constraints. EPA believes that had all the benefit categories been fully evaluated, the monetized benefits for this rule would have increased significantly. However, secondary benefits (e.g., tourism) or economic impacts embody the successive rounds of spending in an economy that result from the primary benefits of a regulation. These secondary benefits (or impacts) are estimated based on the analysis of data on interindustry linkages within a region. Although these impacts may be of relevance to policy makers, the inclusion of secondary benefits may be inappropriate. This is because under conditions of reasonably full employment, the resources placed into support services (or diverted from complying entities) would be diverted from (or redirected toward) other productive purposes (i.e., net jobs would not be created or lost for otherwise unemployed individuals but, rather, workers would be drawn to or away from other jobs). Thus, these secondary impacts represent a transfer or redistribution of resources rather than changes in real economic activity.

Comment ID: CTR-032-008b

Comment Author: Las Gallinas Val. Sanitary Dist

Document Type: Sewer Authority

State of Origin: CA

Represented Org:

Document Date: 09/25/97

Subject Matter Code: E-01c02 Bnfts do not Balance Cost

References: Letter CTR-032 incorporates by reference letter CTR-035

Attachments? N

CROSS REFERENCES E-01u

Comment: Economic Analysis

The District supports CASA/Tri-TAC's conclusions that the Economic Analysis has significant technical weaknesses, is based on a large number of assumptions and minimal empirical data, and that it almost certainly understates costs and overestimates benefits. There is a critical need for a sound economic analysis. We also agree with their recommendation that EPA and the SWRCB undertake a collaborative process with interested members of the public to revise the Economic Analysis based on guidelines in the Economic Considerations Task Force Report.

Response to: CTR-032-008b

See responses to CTR-056-018 and CTR-092-017.

Comment ID: CTR-035-043

Comment Author: Tri-TAC/CASA

Document Type: Trade Org./Assoc.

State of Origin: CA

Represented Org:

Document Date: 09/25/97

Subject Matter Code: E-01c02 Bnfts do not Balance Cost

References:

Attachments? N

CROSS REFERENCES

Comment: III. Economic Analysis A. General Comments p. 9-2 (U.S. EPA, 1997a) - EPA Finds that Benefits Are of Same General Magnitude as Costs

Whether the monetized benefits and costs are compared on an annualized basis, or on a total, discounted basis, we disagree with EPA's conclusion that the benefits are of the same magnitude as the costs. When looked at in terms of a twenty-year phase-in of benefits at a 3 percent discount rate and a ten-year phase-in of costs at a 7 percent discount rate, in the low cost scenario, the costs are nine times higher than the benefits; in the high cost scenario, the costs are nearly twice as high as the benefits. Thus, we think that EPA should disclose in its conclusions and in the summary contained in the Preamble to the CTR that the costs appear to outweigh the benefits. Thus, as discussed above, we believe EPA has to demonstrate that the benefits outweigh the costs, as required under E.O. 12866.

Response to: CTR-035-043

See responses to CTR-021-005c, CTR-032-004, CTR-004-003, CTR-040-039, and CTR-021-006b.

Comment ID: CTR-035-056a

Comment Author: Tri-TAC/CASA

Document Type: Trade Org./Assoc.

State of Origin: CA

Represented Org:

Document Date: 09/25/97

Subject Matter Code: E-01c02 Bnfts do not Balance Cost

References:

Attachments? N

CROSS REFERENCES E-01c01

E-01p

Comment: Introduction

On behalf of CASA and Tri-TAC, M.Cubed reviewed the U.S. Environmental Protection Agency's (USEPA) Economic Analysis (Analysis), as well as the report's underlying benefit and cost data and analyses. M.Cubed's overall reaction is that policy makers and the regulated community can place little confidence in either the benefit or cost analyses -- the uncertainties and broad assumptions contained in these analyses largely undermines their findings. Based on the information provided by USEPA, M.Cubed's judgement is that the proposed California Toxics Rule (Rule) will result in multi-million dollar annual costs -- and have substantial impacts on individual publicly-owned treatment works (POTWS) and dischargers -- and may result in no noticeable benefits to public health or the environment. A critique of specific weaknesses in the cost and benefit analyses is provided below.

Weaknesses in Overall Report Findings

The Analysis' overall findings exhibit a number of flaws, as follows:

USEPA's estimates indicate that Rule costs outweigh benefits, both on an annualized and present value basis. USEPA's claim that comparison "...of both annualized benefits and costs and discounted benefits and costs indicates that the monetized benefits of the CTR are of the same general magnitude as the

costs" is simply not true (U.S. EPA, 1997a, page 9-2). For example, using USEPA's comparison of a twenty-year phase-in of benefits at a 3 percent discount rate against a ten-year phase-in of costs at a 7 percent discount rate, or benefits of between approximately \$20 to \$600 million against costs of about \$180 million to \$1 billion (setting aside the significant weaknesses in the analysis; differences in the probabilities of low or high outcomes; and questions over the appropriate discount rate to apply)(*2) indicates a low cost scenario which is nine times higher than the estimated benefits, and a high cost scenario which is almost twice as high as benefits.(*3)

Executive Order 12866, which requires the economic review, defines "significant regulatory action" as one that is likely to "adversely affect ... a sector of the economy." Yet, although the USEPA finds that two sectors will incur the majority of the regulatory costs - POTWs and chemical/petroleum products -- it provides no analysis of whether or not these costs are "significant" to these sectors. Likewise, USEPA does not examine the potential costs or their implications to small businesses (e.g., health care providers; automobile repair shops), small communities, or non-significant industrial users (SIUs) in general (i.e., industries that are regulated by POTWs through local ordinances, rather than under federal rules)

USEPA's conclusion that the use of different risk levels would not significantly influence compliance costs is not supported by its data. Based on USEPA's own data, use of a 10E-5 risk level for carcinogens would induce a 25 percent cost savings relative to a 10E-6 risk level under the low cost scenario, with a 3 percent change in pollutant loadings.(*4)

(*2) Noticeable benefits seem unlikely to emerge in the near term, if at all, due to the persistence of existing contaminants in the environment, while costs will be incurred over one to two decades. Use of a lower discount rate for benefits would reflect the greater value future generations may place on environmental amenities, an assumption which is open to debate.

(*3) The large differences between benefits and costs is mirrored by the wide range in estimated pollution reduction. Under USEPA's low scenario, only .63 million toxic pounds- equivalent are expected to be reduced under the rule, compared to a high scenario reduction of 7 million pounds equivalent. That is, reductions under the high scenario are eleven times higher than under the low scenario.

(*4) Under the high cost scenario cost reductions are less than 1 percent, with a 7 percent change in pollutant loadings.

Response to: CTR-035-056a

EPA disagrees with the commenter's claim that costs outweigh benefits. In the Economic Analysis of the final CTR, EPA estimates that benefits may range from \$6.9 million to \$74.7 million per year and costs may range from \$33.5 million to \$61.0 million per year. EPA believes that benefits are underestimated due to EPA's inability to monetize all categories of benefits. See also responses to CTR-056-018, CTR-029-004b, and CTR-035-057.

Regarding the issue of whether the CTR imposes significant costs on the chemical/petroleum product and POTW industries, see the response to CTR-042-007a. Based on 40 CFR.131.11, EPA is supposed to base current criteria on sound science and the criteria must contain sufficient parameters to protect the designated uses. From the outset of the national water quality standards program, EPA has explained that while economic factors may be considered in designating uses, scientific and technical factors must form the basis for the criteria to meet those uses. However, in the spirit of EO 12866, EPA has evaluated the cost impact of the CTR on the regulated community.

EPA disagrees with the commenter that the use of different risk levels significantly influences compliance costs. Under EPA's revised low scenario, there is a 3% difference in costs and under the high scenario, there is a 10% difference in costs between the alternative 10E-5 risk level scenario and the CTR-based 10E-6 risk level scenario. Cost increments should be compared to benefits increments, not loading reductions, for a more realistic evaluation of the impact of risk levels. EPA believes that monetized benefits might be commensurate with the cost increase resulting from the lower risk level and EPA believes that costs may be overstated in the high scenario.

See also response to CTR-021-005c.

Comment ID: CTR-035-064
Comment Author: Tri-TAC/CASA
Document Type: Trade Org./Assoc.
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: E-01c02 Bnfts do not Balance Cost
References:
Attachments? N
CROSS REFERENCES

Comment: Weakness in cost analysis The report cost estimates exhibit a number of significant weaknesses, as follows:

* Although USEPA claims that its estimates most likely overstate potential costs, the Analysis is based on a large number of assumptions that could act to understate rule related expenditures. Table One identifies some of these assumptions.

Table One Other Major Technical Assumptions Which Could Significantly Impact the Cost Analysis

Assumption / Potential Impact on Analysis

"If all monitoring data reported for a facility were reported as below analytical detection levels, even if the reported detection limit was above EPA-approved analytical detection levels, it was assumed that no reasonable potential existed to exceed CTR-based WQBELS." (U.S. EPA, 1997b, page 2-13)

RWQCB's permitting policies could undermine this assumption, thereby inducing greater impacts than assumed in the analysis (e.g., lindane in the City of Los Angeles).

The low-cost scenario assumes "no cost" after costs exceed \$200 per toxic pounds equivalent; high-cost threshold is assumed to be \$500 per toxic pounds.

If relief not given, costs would be substantially higher. Relief is estimated to cost \$200,000 per facility,

despite a potential range of \$20,000-\$1,000,000 per pollutant. Since "the facility ultimately must achieve the CTR based WQBEL" (U.S.EPA, 1997b, page 2-31) under this method costs should properly be extended to the future (e.g, discounted). Relief provision isn't balanced with benefit reductions.

USEPA claims that "minor dischargers are not expected to incur significant impacts as a result of State implementation of CTR water quality criteria." (US, EPA, 1997b, page ES-1).

This statement appears to be based on a sample of three minor dischargers, an insufficient sample to reflect the entire population of these dischargers.

Between 10 to 30 percent of indirect dischargers could be affected by pretreatment requirements.

This percentage is based on a Great Lakes study, with no reason to believe similar patterns exist in California, Although pre-treatment costs are very industry-specific, USEPA's data is solely based on two California cases: Compliance period may not allow for optimal use of pretreatment; optimization; or end-of-pipe treatments.

Assumes that costs are incremental (e.g., that rule compliance would result in distinct investment from past or future behavior).

Could require the need to reorganize capital or operating expenditures, resulting in higher costs. The costs of existing unmet standards should be considered.

"...assumed that all sludges generated would be nonhazardous..that sludge would be disposed of in municipal landfills..."

"...potential costs associated with storing and transporting sludge were not considered." (U.S. EPA, 1997b, page 2-35)

Average per-facility process "optimization" costs were assumed to be \$100,000, and to be fully effective in obtaining targeted reductions.

This is an optimistic assumption.

Depreciation and the cost of capital where not included in the O&M costs. Financing assumed to be available.

Some (small) POTWs may have difficulty obtaining lowcost financing, particularly as a result of

Proposition 218.

"...detailed treatment and manufacturing process information was not available in the NPDES permit files, ...the assessment of feasibility was based primarily upon best professional judgement using general knowledge of industrial and municipal operations." (U.S.EPA, 1997b, page 2-30)

Use of generalized knowledge may act to under- or over-estimate file costs to specific POTWs and dischargers.

Technical assumptions in the case studies (e.g., treatment of process waters; optimization) merit engineering review.

Examination of case-specific costs could result in different estimates.

Response to: CTR-035-064

See also responses to CTR-032-004, CTR-040-024, CTR-040-029a, CTR-040-036, CTR-059-018, and CTR-060-019.

EPA acknowledges that as permit limits are established below analytical detection levels, ambient water quality background data also may be below analytical detection levels, which may make analysis of use attainability more difficult. However, in accordance with the procedures recommended in Water Quality Standards Handbook, Second Edition (U.S. EPA 1994), analysis of use attainability encompasses evaluating physical and biological indicators as well as the ability to meet water quality criteria.

The commenter's statement that, under EPA's analysis, no reasonable potential is assigned to pollutants with projected effluent limits below detection levels is inaccurate. In EPA's high scenario, pollutants with projected CTR-based limits below detection levels are assigned reasonable potential and analyzed for potential compliance costs if they have an existing NPDES permit limit. The fact that a Regional Board assigns a permit limit to a pollutant reported below detection level indicates that the Board may require further controls to ensure compliance. In the Economic Analysis, EPA estimates that facilities would implement pollution prevention or waste minimization programs in order to achieve compliance with limits below method detection levels.

For the City of Los Angeles POTW, EPA determined reasonable potential to exceed water quality criteria for lindane because a (1991) permit limit exists and discharge data show reasonable potential to exceed CTR criteria. EPA did not estimate compliance costs, however, because the existing permit limit is as stringent as the projected CTR-based permit limit.

Comment ID: CTR-038-004d

Comment Author: Sonoma County Water Agency

Document Type: Sewer Authority

State of Origin: CA

Represented Org:

Document Date: 09/25/97
Subject Matter Code: E-01c02 Bnfts do not Balance Cost

References:

Attachments? Y

CROSS REFERENCES E-01g08

E-01h

E-01m

Comment: 4. The economic analysis is seriously flawed. The major flaws include: (1) failing to do an appropriate sampling of dischargers having little or no dilution; (2) assuming in the high-end cost scenario that a 25% reduction could be achieved through source control and an additional 25% achieved through treatment plant optimization without capital improvements; (3) constraining estimates of potential costs through key assumptions, including the assumption that regulatory relief from the rule would be granted if costs were in excess of certain thresholds; and (4) exaggerating estimates of potential benefits by assuming an end (i.e., achievement of the proposed water quality criteria) that will not result from the rule. The result of these flaws is that potential costs are greatly understated and potential benefits are greatly overstated. The District's analysis demonstrates that actual costs may be an order of magnitude greater than EPA's \$500/lb threshold and that the benefits are very small.

Response to: CTR-038-004d

See responses to CTR-054-013a, CTR-032-004, CTR-021-008, and CTR-040-029a.

Comment ID: CTR-040-008a

Comment Author: County of Sacramento Water Div

Document Type: Storm Water Auth.

State of Origin: CA

Represented Org:

Document Date: 09/25/97

Subject Matter Code: E-01c02 Bnfts do not Balance Cost

References: Letter CTR-040 incorporates by reference letter CTR-027

Attachments? Y

CROSS REFERENCES E-01m

E-02c

Comment: MAJOR CONCERNS

We do, however, have fundamental concerns with the Rule as it is presently proposed and its supporting economic analysis. We believe the Rule can be modified in a manner that will be responsive to our concerns while at the same time being consistent with applicable Federal law and regulations. Our major concerns are presented here and are followed by our recommended modifications.

II. Concern: The economic analysis upon which the Rule is based is seriously flawed.

* Estimates of potential costs are severely constrained due to certain assumptions including the assumption that regulatory relief from the Rule will be granted if costs are in excess of certain thresholds.

* Estimates of potential benefits are exaggerated by assuming, that the proposed water quality criteria

will actually be achieved in receiving water bodies. This will not result from the implementation of the Rule because the Rule is only addressing permitted discharges to the receiving water bodies.

* The result of these flaws is that potential costs are greatly understated and potential benefits are greatly overstated.

Response to: CTR-040-008a

See responses to CTR-054-013a, CTR-032-004, and CTR-056-018.

Comment ID: CTR-040-042

Comment Author: County of Sacramento Water Div

Document Type: Storm Water Auth.

State of Origin: CA

Represented Org:

Document Date: 09/25/97

Subject Matter Code: E-01c02 Bnfts do not Balance Cost

References: Letter CTR-040 incorporates by reference letter CTR-027

Attachments? Y

CROSS REFERENCES

Comment: EPA improperly lumps all criteria together in estimating costs and benefits. The result is that the pollutant reductions that form the basis for most of the costs (chromium, mercury, silver and toluene) are not generally the same pollutants that form the basis for most of the benefits (DDT, PCBs, mercury and dioxin). The cost-benefit analysis should be done on a pollutant-by-pollutant basis and it should be done on the basis of the pollutants that will be reduced as a result of the CTR.

Response to: CTR-040-042

For a discussion of the estimation of benefits and costs for individual pollutants see response to CTR-044-033.

To calculate potential human health risk reduction benefits, EPA first calculated baseline risk levels using actual contaminant concentrations found in fish tissue. EPA then multiplied the baseline risk levels by the estimated reduction in loadings expected to result from the implementation of point source controls and by the relative contribution of point source loadings to total loadings. For DDT, EPA estimated a 68.8% reduction in point source loadings under the high end cost estimate and a 0% reduction in point source loadings under the low end cost estimate. EPA's estimate of human health benefits reflects these estimated reductions. For example, potential cancer-related benefits to recreational anglers range from \$0 to \$4.2 million for freshwater resources and total \$0 for San Francisco Bay. In addition, the risk reducing impact of the regulation on point sources may not be fully illustrated by EPA's analysis which reflects only a sample of point source dischargers. That is, although baseline risk levels are based on actual fish tissue concentrations, post-regulation risk levels are estimated by examining the potential for reducing loadings at a sample of facilities. Pollutants responsible for much of the baseline health risk at specific sites, such as popular fishing areas in San Francisco Bay, may be found in point source effluents, however, the facilities discharging these pollutants may not be included in the sample.

Comment ID: CTR-041-038
Comment Author: Sacramento Reg Cnty Sanit Dist
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: E-01c02 Bnfts do not Balance Cost
References:
Attachments? N
CROSS REFERENCES

Comment: EPA improperly lumps all criteria together in estimating costs and benefits. The result is that the pollutant reductions that form the basis for most of the costs (chromium, mercury, silver and toluene) are not generally the same pollutants that form the basis for most of the benefits (DDT, PCBs, mercury and dioxin). The cost-benefit analysis should be done on a pollutant-by-pollutant basis and it should be done on the basis of the pollutants that will be reduced as a result of the CTR.

Response to: CTR-041-038

See responses to CTR-040-042 and CTR-044-033.

Comment ID: CTR-043-004e
Comment Author: City of Vacaville
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: E-01c02 Bnfts do not Balance Cost
References:
Attachments? Y
CROSS REFERENCES E-01g
E-01h
E-01m
E-02c

Comment: 4. EPA's Economic Analysis is seriously flawed. The major flaws include:

- (1) failing to do an appropriate sampling of small dischargers having little or no dilution;
- (2) assuming in the high-end cost scenario that a 25% reduction could be achieved through source control and an additional 25% achieved through treatment plant optimization without capital improvements;
- (3) constraining estimates of potential costs through key assumptions, including the assumption that regulatory relief from the rule would be granted if costs were in excess of certain thresholds; and
- (4) exaggerating estimates of potential benefits by assuming an end (i.e., achievement of the proposed

water quality criteria) that will not result from the rule.

The result of these flaws is that potential costs are greatly understated and potential benefits are greatly overstated. Moreover, the flawed economic analysis has led to the erroneous conclusion that the CTR is not a "significant regulatory action" or major rule subject to Presidential Executive Order 12866 and the Unfunded Mandates Reform Act or a rule that affects small entities protected under the Regulatory Flexibility Act.

Response to: CTR-043-004e

See responses to CTR-054-013a, CTR-021-005c, CTR-032-004, CTR-021-008, CTR-040-029a, CTR-056-018, and CTR-059-018.

Comment ID: CTR-044-005e
Comment Author: City of Woodland
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: E-01c02 Bnfts do not Balance Cost
References:
Attachments? Y
CROSS REFERENCES E-01g08
E-01h01
E-01m
E-02c
R
S

Comment: We have reviewed the proposed CTR and offer the following comments:

4. EPA's Economic Analysis is seriously flawed. The major flaws include:

(1) failing to do an appropriate sampling of small dischargers having little or no dilution; (2) assuming in the high-end cost scenario that a 25% reduction could be achieved through source control and an additional 25% achieved through treatment plant optimization without capital improvements; (3) constraining estimates of potential costs through key assumptions, including the assumption that regulatory relief from the rule would be granted if costs were in excess of certain thresholds; and (4) exaggerating estimates of potential benefits by assuming an end (i.e., achievement of the proposed water quality criteria) that will not result from the rule. Additional concerns with the economic analysis are presented in Exhibit F. The result of these flaws is that potential costs are greatly understated and potential benefits are greatly overstated. Moreover, the flawed economic analysis has led to the erroneous conclusion that the CTR is not a "significant regulatory action" or major rule subject to Presidential Executive Order 12866 and the Unfunded Mandates Reform Act or a rule that affects small entities protected under the Regulatory Flexibility Act. The City, for example, is a small community having a population of under 50,000 and would be greatly impacted by the proposed rule.

Response to: CTR-044-005e

See responses to CTR-054-013a, CTR-021-005c, CTR-032-004, CTR-021-008, and CTR-040-029a.

Comment ID: CTR-044-033
Comment Author: City of Woodland
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: E-01c02 Bnfts do not Balance Cost
References:
Attachments? N

CROSS REFERENCES

Comment: EPA improperly lumps all criteria together in estimating costs and benefits. The result is that the pollutant reductions that form the basis for most of the costs (chromium, mercury, silver and toluene) are not generally the same pollutants that form the basis for most of the benefits (DDT, PCBs, mercury and dioxin). The cost-benefit analysis should be done on a pollutant-by-pollutant basis and it should be done on the basis of the pollutants that will be reduced as a result of the CTR.

Response to: CTR-044-033

See response to CTR-054-013a.

Although a small subset of toxic pollutants are responsible for cancer risk reduction benefits, EPA anticipates ecosystem-wide benefits (e.g., noncancer risk reductions, ecologic benefits) from controlling a range of toxic pollutants. EPA did estimate human health benefits on a pollutant-specific basis. For other benefit categories, EPA estimated potential benefits based on toxic-weighted loading reductions to account for the different toxicities of the pollutants.

EPA recognizes the persistence of some of the substances addressed by the CTR (e.g., DDT and PCBs) and the impact of this persistence on the realization of benefits. In the EA (Chapter 9), EPA accounted for this lag by assuming 10- and 20-year phase-in periods for benefits in its comparison of present value benefits and costs.

In addition, EPA believes that point source controls can factor into pollutant reduction scenarios, although the cost-effectiveness of point and nonpoint source controls are likely to be highly site specific. Potential "hidden" loads (contaminant concentrations which are not currently measured because they are below detection levels) from point sources may also be occurring and may increase the potential benefits of point source controls. In addition, point source loadings reductions will reduce future sediment contamination and, thereby, reduce the need for costly site-specific sediment remediation in the future. Therefore, the CTR can be viewed as both reducing current environmental risks (yielding benefits) by reducing current loadings, and reducing future environmental cleanup costs.

Comment ID: CTR-054-037
Comment Author: Bay Area Dischargers Associati
Document Type: Sewer Authority
State of Origin: CA

Represented Org:
Document Date: 09/25/97
Subject Matter Code: E-01c02 Bnfts do not Balance Cost
References:
Attachments? N
CROSS REFERENCES

Comment: EPA improperly lumps all criteria together in estimating costs and benefits. The result is that the pollutant reductions that form the basis for most of the costs (chromium, mercury, silver and toluene) are not generally the same pollutants that form the basis for most of the benefits (DDT, PCBs, mercury and dioxin). The cost-benefit analysis should be done on a pollutant-by-pollutant basis and it should be done on the basis of the pollutants that will be reduced as a result of the CTR.

Response to: CTR-054-037

See responses to CTR-040-042 and CTR-044-033.

Comment ID: CTRH-001-037a
Comment Author: Robert Reid
Document Type: Public Hearing
State of Origin: CA
Represented Org: CASA
Document Date: 09/17/97
Subject Matter Code: E-01c02 Bnfts do not Balance Cost
References:
Attachments? N
CROSS REFERENCES E-01q03
E-01h02

Comment: Second, the interaction between the CTR and the state's implementation policy is particularly important given our second concern, which is namely that the EPA's economic evaluation underestimates the costs and overestimates the benefits of implementing this rule.

Our concern about the cost estimates is based on the fact that the cost analysis appears to undervalue the magnitude of difficulty dischargers will have complying with permits issued based on this rule.

We are also concerned that the cost estimates for various compliance activities such as source control and treatment process optimization made in the case studies are overly optimistic and not reflective of the true actions that will need to be taken to insure compliance.

Overall, we are concerned that the expenditures that may be necessary for many POTWS to comply with the CTR will be large, these costs may not be matched by commensurate benefits, and that EPA has not analyzed whether point source controls are in fact a cost-effective way to achieve water quality standards.

Our preliminary analysis for just five agencies in the Bay Area to comply with the proposed standard for copper alone could amount to more than \$60 million per year -- 60 million. This number would be far higher if calculated for every pollutant listed in the CTR for the entire POTW industry in California.

Since this estimate would undoubtedly exceed the high end of the range contained in EPA's analysis, we believe it is necessary for EPA to redo the economic analysis to fully comply with its legal responsibilities.

In addition, revised economic analysis is necessary to provide a sound basis for the State to use in its analysis of the economic impacts of the implementation policy.

Response to: CTRH-001-037a

See responses to CTR-041-018, CTR-035-057, CTR-056-018, CTR-004-003, and CTR-040-039.

Comment ID: CTRH-002-016a

Comment Author: Lisa Ohlund

Document Type: Public Hearing

State of Origin: CA

Represented Org: Alliance of So. CA POTWs

Document Date: 09/18/97

Subject Matter Code: E-01c02 Bnfts do not Balance Cost

References:

Attachments? N

CROSS REFERENCES E-01h

Comment: And finally, I'd like to comment on the analysis of the economic impact of the CTR. We believe that the analysis does not portray a reasonable picture of what the potential costs and benefits may result from the promulgation of this CTR. In our opinion, the cost analysis contains many flawed assumptions that result in severe underestimation of the total potential costs, and we're particularly concerned about the use of process optimization and how it was relied upon.

Likewise, the benefits, while admittedly difficult to estimate, appear tenuous at best. The bottom line is that we are concerned that this analysis does not properly reveal that the CTR can lead to requirements for large expenditures by POTWs in Southern California with questionable benefits to the environment. We recommend that EPA carefully redo its economic analysis to portray a more accurate picture of the potential costs and benefits.

Thank you again for this opportunity. We look forward to submitting our comments in writing.

Response to: CTRH-002-016a

See responses CTR-054-013a, CTR-035-057, CTR-056-018, and CTR-004-003.
