

ALASKA LEGISLATURE COMMITTEE FILES 1993-1994 8672

8013 HOUSE RESOURCES

cancer. While I would not wish what my family or my mother suffered on anyone, raising the level from 10^{-5} to 10^{-6} is not the answer. The energy resources and cost is better spent fighting the real causes of cancer which include smoking and a sedentary life style. A risk of 1 in 100,000 is very small when compared to the chances of 80% of all life on the planet being eliminated by a comet/asteroid smashing into the earth. The odds of that happening as reported by Economist magazine is 1 in 30,000.

An increase to risk levels of 1 in 1,000,000 would cost millions of extra dollars with virtually no gain. A level of 1 in 100,000 is more reasonable and an acceptable health risk.

MIXING ZONES: AFA supports the concept and practice of mixing zones which allow for the natural assimilative capacity of the surrounding water to efficiently dilute a waste-water discharge to levels below any that could be harmful. In some cases it is very probable waste water being discharged could be cleaner than that into which it is being released. AFA supports the continued use of mixing zones in both fresh and marine waters.

TREATMENT WORKS: AFA supports and wishes to emphasize the importance of the proposed "treatment works" definition. We urge and support the continued exemption of discharges into treatment works from having to meet water quality standards. It is not realistic to expect water quality standards to be met inside properly authorized treatment facilities such as sediment settling ponds.

NATURAL BACKGROUND LEVELS: Nature can create situations where the existing concentrations of a substance are higher in the receiving water than the concentration in the proposed discharge. For this reason, AFA supports the consideration of natural background levels through the development of site specific water quality criteria. It is only logical the discharge being released can be equal to the natural level without increasing the concentration of the substance overall. In fact, some site concentrations exceeding the natural background level may be discharged while still fully protecting all uses of the water.

Thank you for this opportunity to present comments before the Committee. We trust DEC will take the prudent course and adopt the proposed rules in their present form.



Cordova District Fishermen United

P.O. Box 939
Cordova, Alaska 99574
(907) 424-3447 FAX (907) 424-3430

November 12, 1993

Mr. Dave Sturdevant, Project Coordinator
Alaska Department of Environmental Conservation
410 Willoughby Avenue, Suite 105
Juneau, Alaska 99801-1795

Dear Mr. Sturdevant:

I wish to express CDFU's objections to the latest proposed revisions to the state's water quality regulations. It has been a year since we last commented on the first round of proposed changes, and frankly, it looks like *deja vu* all over again. Nothing seems to have changed in terms of the issues surrounding the water quality debate, so I will take this opportunity to reiterate our position on ADEC's most recent proposal.

The seafood industry is Alaska's largest private sector employer and second-largest income producer. At present, Alaska has an enviable marketing edge for promoting its seafood products: pure, uncontaminated water. CDFU is particularly concerned that reducing our current water quality standards, as currently proposed by ADEC, will erode this marketing advantage and affect the public's perception regarding the purity of Alaskan seafood. Consumers are becoming more sophisticated and concerned about the wholesomeness of what they eat and where it comes from. In an era where Alaskan wild salmon products are facing increased competition from farmed salmon, we cannot afford to lose this marketing advantage. For us the bottom line is simple, clean water sells fish.

To meet this end, CDFU maintains that:

1. The acceptable cancer risk level should be reestablished at 1 in 1 million. The state's current risk level of 1 in 100,000 was based on the assumption that the average Alaskan might eat only five pounds of contaminated fish per year. Unfortunately, this assumption does not take into account that residents of coastal communities and subsistence users eat a great deal of fish, between 50 and 700 pounds per person per year. Basing the cancer risk level on a five-pound fish consumption rate ignores the cumulative effects of carcinogens and the fact that many reproductive, immune and neurological diseases can result from concentrations lower than the levels which produce cancer.

2. ADEC should preserve the current standard which prohibits mixing zones for carcinogenic compounds harmful to humans and aquatic life. Mixing zones should also be prohibited for toxins which accumulate and/or persist in the environment.

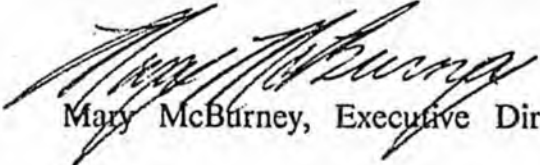
3. Impounded water bodies used as "treatment works" should not be exempt from water quality standards. These sorts of impoundments serve as holding ponds for all sorts of chemical "soups." To exempt them from water quality regulation is to deny that they exist and pose potential harm to human health and the environment. There need to be provisions that guarantee that "treatment works" will not adversely affect humans, fish or wildlife.

4. The proposal to allow the discharging of wastes up to "natural background levels" is, at best, premature. Most waterbodies in the state exceed water quality standards for short periods of time throughout the year, particularly during spring breakup and the rainy season. Currently there are no guidelines for determining natural background conditions for waterbodies and defining situations where such conditions may be used. Before ADEC implements regulations regarding natural background conditions, draft guidelines should be written and submitted to the public for review and approval. These guidelines should specifically address when natural conditions should be used, criteria for how they will be defined and determined, and acceptable safety considerations to protect human health and fish and wildlife resources.

CDFU recognizes that development and utilization of Alaska's resources is the key to our state's economic well being. However, the proposed changes to the state's water quality regulations will require the commercial fishing industry to sacrifice the economic benefits it derives from clean water to benefit the forest products and mining industries. We don't believe that this is an acceptable tradeoff. Degrading the state's water quality standards does nothing to support and foster Alaska's seafood industry and will only be counterproductive to the long-term economic welfare of our state.

We encourage you to not only consider, but to adopt our recommendations regarding the state's water quality standards.

Sincerely,
CORDOVA DISTRICT FISHERMEN UNITED


Mary McBurney, Executive Director

cc: John Sandor, Commissioner, ADEC
Rep. Bill Williams, Chair, House Resources Committee
Rep. Harley Olberg
Senator Georgianna Lincoln



TANANA CHIEFS CONFERENCE, INC.

122 FIRST AVENUE
FAIRBANKS, ALASKA 99701-4897
PHONE (907) 452-8251 FAX (907) 451-8936

November 9, 1993

Rep. Bill Williams
House Resources Committee
352 Front Street
Ketchikan, Ak. 99901

RE: Analysis and Comments of the Proposed Revisions by ADEC
to the Alaska Water Quality Standards 18 AAC 70

Dear Mr. Williams:

Enclosed you will find our analysis of the proposed revisions to the Alaska Water Quality Standards. It appears that the individuals who are in charge of protecting our resources are comfortable allowing more pollution for the economic gain of large industries. These individuals will not admit this openly, but today's public is more informed and more concerned, and we can see what the real motives are. Please take these comments into consideration when making decisions on this issue. Our resources and future depend on it.

Sincerely,

Paul Headlee
Water Resources Specialist



TANANA CHIEFS CONFERENCE, INC.

122 FIRST AVENUE
FAIRBANKS, ALASKA 99701 4897
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NOVEMBER 3, 1993

John A. Sandor, Commissioner
Department of Environmental Conservation
410 Willoughby Avenue, Suite 105
Juneau, AK 99801-1795

RE: ANALYSIS AND COMMENTS OF THE PROPOSED REVISIONS BY ADEC
TO THE WATER QUALITY STANDARDS 18 AAC 70

Dear Mr. Sandor:

Tanana Chief's Conference, Inc. (TCC) is a tribal consortium of the 43 villages of Interior Alaska. TCC is a non-profit organization that works toward meeting the health and social service challenges for more than 10,000 members spread across a region of 235,000 square miles. Among the many challenges faced by TCC, is the need to maintain active involvement and influence in the development of environmental regulations and how they impact our member villages. Therefore, TCC is providing the following comments regarding the proposed revisions to the Alaska Water Quality Standards.

SECTION .022 HUMAN HEALTH CRITERIA

The ADEC is proposing to adopt the standard of 1 in 100,000 risk of contracting cancer from ingestion of freshwater, fish, shellfish, and other aquatic products. The "Target Population" has not yet been defined. If the "Target Population" includes all Alaskans then the 1 in 100,000 risk level is not in line with the unique lifestyles of Alaska residents.

The Regulatory Issue Paper on the Human Health Criteria, enclosed in the Public Review Packet of the Proposed Revisions to the Water Quality Standards August 1993, states that the cancer risk of 1 in 100,000 is a hypothesis that represents average situations. The term "average situations" is not defined, nor is there any guidance of what amounts can be consumed and at what carcinogenic level.

Clearly, a subsistence lifestyle is not an average situation. Many of the residents of the Interior region consume 200-500 pounds of fish per year. ADF&G Subsistence Division data support this. These levels are up to 100 times what the proposed risk level is based on (5 pounds of fish/person/year). In reality the risk level for these individuals would be dramatically increased. How do high consumption rates figure into the risk level model/formula? Under conditions of chronic exposure (consuming contaminated fish for 3-12 months of the year) are the risk levels greater for more sensitive individuals such as pregnant women and the fetus as compared to non-pregnant women and adult males? These concerns are real, and they need to be addressed.

Two-thirds of the United States have adopted a cancer risk level of 1 in 1,000,000 while the remainder have chosen the 1 in 100,000 level. Washington, Oregon, and Idaho, are states that have similar large scale industries as in Alaska and have all chosen the 1 in 1,000,000 risk level of protection for their people.

Due to the unique lifestyles of Alaska residents, both rural and urban, the State of Alaska should adopt the 1 in 1,000,000 risk level. Once again, our concerns are very real and no Alaskan should have to be exposed to a higher risk of cancer for the economic gain of any individual or group.

SECTION .032 MIXING ZONES

(a) The department "will" should be changed to "may" in this section. Unless this change is made in the first sentence of the Standard, the impression is given that the permit for a mixing zone will in fact be granted.

(a)(3) "waterbody as a whole" is not defined.

(b) Toxic compounds should not be allowed to accumulate in toxic amounts within a mixing zone or within the zone of initial dilution (ZID). Due to the migratory nature of anadromous fish, seasonal movements of resident fish, and downstream drift of juvenile fish, allowing the effluent

to pollute the receiving water to a toxic level is unacceptable, dangerous, and should be prohibited.

(f)(1) Mixing zones in lakes should not even be considered due to their relatively low flush rates. Water movements in lakes are of major importance to the biota, productivity, and nutrient cycles within. Wind generated water movements such as Langmuir circulations and internal seiches could greatly increase the potential for exceeding the 10% surface area allocated for the mixing zone. Also, density differences between the discharge and the receiving water must be considered.

(f)(3)(B)(ii) If the actual concurrent upstream flow data cannot be determined, then the 2-year, 3-day summer low flow (3Q2) method should be used for non-glacial streams/rivers, and the 2-year, 7-day flow method used for glacial stream/rivers. The reason being is that not all streams and rivers experience their lowest flow during mid-summer.

(f)(3)(D) This should also read that no mixing zone will be approved in an "index stream" or "index section" of a stream or river that is monitored by ADF&G to determine escapement and escapement goals, or any other management applications.

GENERAL COMMENTS:

1. Until the wording in Section 9607(a) Liability, of the Comprehensive Environmental Response, and Compensation and Liability Act (CERCLA), is changed to a disposition in which the "polluter pays," relaxing the WQS is not acceptable. In the cases of several Alaska Native lands, the landowner is being held liable when the landowner is not the polluter. Many of these sites are the result of mismanagement of hazardous substances by Federal and State agencies.

2. It appears that the revisions proposed by ADEC are not consistent with any antidegradation policy as required by 40 CFR 131.6. ADEC seems to feel that it is acceptable to allow clean waters to be polluted down to "background levels." This would appear to be feasible because the initial clean waters would end up being no worse off than similar acceptable (but polluted) waters. This is a temptation that must be avoided. Otherwise agencies find themselves

ADEC
NOVEMBER 3, 1993
PAGE 4

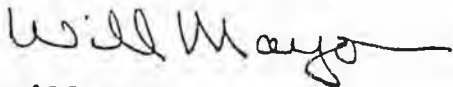
battling to clean up downstream waters, only to have them polluted once again by upstream flow.

The above comments are in addition to verbal testimony provided September 28, 1993 here in Fairbanks. We urge you to take these comments seriously and incorporate them into the new Water Quality Standards. Clean water is the foundation for the natural resources that our member Villages depend on. Water quality should not be compromised.

Thank you for the opportunity to provide input on these consequential revisions.

Sincerely,

TANANA CHIEF'S CONFERENCE, INC.



Will Mayo
President



TANANA CHIEFS CONFERENCE, INC.

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Also enclosed are two letters that I have received from Kias Peter, Traditional Chief of Arctic Village. These two letters are written "from the heart" and are directed at the foundation of the resources, WATER. Please take Kias Peter's and many other villager's concerns into consideration. Thank you.

Sincerely,

Paul Headlee

Paul Headlee
Water Resources Specialist

Sept, 4, 1993
Traditional Chief Kias T. Peter Sr.
P.O. Box 22032
Arctic Village, Ak. 99722

Paul Headlee,
Tanana Chief Conf. Inc.

I was kind of Very happy to Recieve
your Letter. About our (Land) (Game)
Timber's & Water. I been working in
North Slope for 18 Year's. with a
Constriction. while I work up there.
I see the River water are change. in +
three - year's. And last winter.
the Caribou up there are die out.

Paul, Where American to. And where +
Trying to Left. Like in early day.
And this is the way. we want.
So if our food. change, we be all die out
And many of our poor Little kids.

When ever I come to Fairbanks, again
I be look for you. I Really want. to
talk with you. about this, it is important

Cincerely.

Kias T. Peter Sr.

P.S. I am working on Native Survival. so I could safe.
~~at least~~ people life. yes I be glad to talk to you.
When I see you. at your office

(1)

Oct 16th 1993
Kiss T. Peter Sr.
P.O. Box 82032
Arctic Village, Ak.
99722

Paul Headline,
Tanaqua Chief Con. Inc.
122 Frist Ave,
Fairbanks, Ak. 99701-4897

my helper Paul. I'm not good writer,
But I sure like to say something about this
since last two days. I told to my people in
Village. There is about 60 people say NO.
about this (water) (mixing zones) & cancer.
This water ~~this~~ if its all dream, or dead.
What's what's ~~can~~ this Alaska people will do.
we all die out. out Village; will have to charter
the Air ^{+ plane} to FBKS & Anchorage, we dont have that
kind of money as you know Alaska native dont
have no money in bank, we dont want even say
something about this mixing zones, ~~and~~ Lets.
all help ^{LEACH} weather and work on it, and say NO NO
I remember about 1935 to 1945 ~~they~~ ^{we} dont even know it
There is Fairbanks, we dont get no help from ~~the state~~
Any white people, we just left off the Land.
Today they found out the ^{last} good ^{+ things} Timber w/o it
many others. So they try to kill us all.
Paul Last thank about next 40 to 50 years.

(2)

I Really want to talk to you.

Okay, I will be in Fairbanks, Nov. 18th 93.

Get come over to talk you, sometime when-

you get together, why don't you tell me to come.

And the meeting Right in Tanana chief conference.

building. So be very happy to say about are

land, about are game fish birds timber +

+ water, all the other good things that we have +

+ in ALASKA. Lets work together and fight it out

~~the~~ never give-up, ~~myself~~ I got Retired

from Labor Union, there in Fairbanks, and I +

+ also. Retired from ALASKA ARMY WATERS, AT GUARD.

So I think, I got power to say something, PAUL

lets all say one day of a time, and work.

I be very happy to be one of them.

Paul. please answer soon. good luck.

Very close friend Kias T. PETERS.

Kias T. Peters Jr.



November 15, 1993

Chair of House Resources
Representative Bill Williams
352 Front Street
Ketchikan, AK 99901

Dear Chairman Williams:

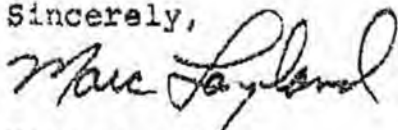
Please accept my position as a businessman that actions being taken and proposed by DEC on State Water Quality Standards is acceptable.

I care very much about clean air and water, but expect the scientific community to provide rational guidelines that will balance the environmental concerns, human health and economic factors without needlessly sacrificing local jobs.

Please adopt standards that will allow us to live, work and play in this state safely. Please do not take the position of the radical few who do not care who or what businesses will be displaced.

I support the DEC proposal and request no further extreme criteria be used.

Sincerely,



Marc Langland
President

ML:ef



ALASKA CLEAN WATER ALLIANCE

10-28-93

Commissioner John Sandor
Alaska Department of Environmental Conservation
410 Willoughby Ave
Juneau, Alaska 99801

Re: Comments to ADEC's Proposed WQS Revisions

General Comments

The WQS proposals proposed by ADEC in this triennial review continue to be problematic for the following reason; they were originally conceived as a method by which the administration could lessen the regulatory burden on a select group of industrial polluters. This intent is documented in charts from an April '92 ADEC/pulp mill meeting. They describe in detail the necessary changes in the Alaska Water Quality Standards so that the mills might approach compliance with their draft NPDES permits. This agenda was also confirmed in statements by the WQM staff regarding the proposed revisions during an informational hearing in Haines in July '92 regarding the permitting needs of the mining and pulp mill industries. ADEC was clearly attempting to solve local problems for industries with major changes in the state wide regulations for water quality instead of leaving the legal, not to mention financial responsibility, of pursuing site-specific criteria applications for particular projects to the applicants desiring the regulatory relief. Fighting these battles for polluting industries was improper for the state agency entrusted with the mandate of protecting and conserving our environment. Over the course of the last eighteen months, this policy has cost a staggering amount of money, and the confidence and respect of Alaskans statewide.

Unfortunately, the overwhelmingly poor public reception for the original proposed revisions and the negative evaluation by the EPA have not as yet been able to alter the department's course. The evidence for this in the current set of proposals is incontestable. For example; if the ADEC was interested, as they allege, in providing treatment works exemptions that would allow villages to continue to use lagoons for sewage disposal, there would be no need to adopt language that would permit large scale hard rock mines to use existing water bodies of the State (and U.S.) as unlined tailings disposal ponds exempted from WQS. ADEC is intentionally relaxing the Mixing Zone (MZ) regulations to allow for the release of carcinogens. The applicant's responsibility to prove that a carcinogenic compound isn't able to bioaccumulate or persist in the environment has now shifted to the State and/or public, for a scientific and legal demonstration that some loosely defined "significantly adverse level" of damage has indeed occurred. Another problem in the implementation of any MZ regulations is the continued lack of acute toxicity criteria in State regulation, despite repeated demands by the EPA for the State to adopt the Clean Water Act (CWA) toxics free language that does not allow "toxics in toxic amounts". According to the EPA, we may at this time be the only state in the country that still has no acute toxicity regulation. It is

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obvious that any MZ for the pulp mills would have an acutely toxic Zone of Initial Dilution (ZID), and yet our regulators have no regulatory direction on how to determine the extent and effects of such an acutely toxic volume. This situation is made even more difficult because industries are permitted to self-monitor their effluent and mixing zones. A March 1993 GAO study (GAO/RCED-93-21) spoke to the tremendous abuse in the federal self-monitoring program. It detailed the possibilities and incentives for a company to be dishonest, as well as the prosecutions and convictions of a significant number of "independent laboratories" for falsifying data and results. Our regulations need to be as definitive as possible; since regardless of the good intentions of some of the WQM team, the ever shrinking ADEC staff has neither the funding nor the expertise to achieve an adequate level of control and protection.

For many months the WQM staff maintained the position that the proposed WQS would not weaken the quality of water in Alaska. At the recent round of workshops the staff admitted that the legal potential for increasing toxic discharges would now exist. After six public hearings, at which according to the S.E. Regional Director a very "...rational, focused and sophisticated..." public spoke out in nearly unanimous opposition to the standards revisions, a DEC official finally admitted that regulations are being relaxed.

Perhaps the most serious omission from these standards is the continued absence of a legitimate antidegradation policy as required by the CWA. Under 40 CFR 131.6, it states:

Minimum requirements for water quality standards submission.

The following elements must be included in each State's water quality standards *submitted* to EPA for review:

...(d) An antidegradation policy *consistent* with 131.12. (emphasis added)

The policy of 131.12 expressly states that there must be intergovernmental coordination and public participation coincident with the State's continuing planning process to assure that a lowering of water quality does not impair the existing uses. In addition, the federal policy demands that the State achieve the highest statutory and regulatory requirements and best management practices for point and non-point source control. Furthermore, 131.12 requires the State to provide a mechanism for the establishment of Outstanding National Resource Waters (ONRW) that would insure the highest levels of water quality protection. This ONRW classification is not only intended to protect the most pristine waters, but offers special protection for waters of "ecological significance" where the water body may already be compromised to some degree as measured by the traditional parameters of water quality.

Despite the fact that 40 CFR 131.6 has **required** the State to include 40 CFR 131.12 for the **submission** of every standards package for over ten years, Alaska has repeatedly failed to comply. This omission has occurred despite the clear knowledge of this requirement by both the EPA and the ADEC staff. The inclusion of this policy is critical because it provides the sideboards for the other regulations - many of which are

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designed to provide for specific exemptions from the intent of the CWA - to maintain or improve the waters of the U.S. The responsibility for this omission has been passed freely between the State and Federal governments. We are being told again that a subsequent phase of the triennial review will contain the required language. Regardless of the "phasing" concept that ADEC has initiated for these revisions, the State is required to include this policy with every standards submission. Indeed, several of the currently proposed changes in the WQS would be in direct conflict with 40 CFR131.12. For this reason alone this set of proposals will need to be significantly modified, and should therefore be returned to the WQM staff for the preparation of a new draft.

While it is understood that this is a draft document, the typographical errors, procedural omissions, and inconsistencies between the current regulations, the issue papers and the proposed regulations make this document unusable as the document of public disclosure for regulatory modification as required by the Administrative Procedures Act. For example: under Toxic Substances, the existing regulations require the testing of the most sensitive species when doing bioassays for chronic toxicity. In several places in the new proposals, this wording was dropped and replaced with a sensitive species. This is significant because a sensitive species may be *far less sensitive* than the most sensitive species. When I asked the WQM staff at the workshop in Anchorage why this change had been made, I was told that they were unaware of the modification in the testing language! I then asked why the "harvesting of mollusks" marine use had been separated from the rest of the Toxic Substances section, which removes it from the protective "toxics free narrative", and again was answered with a look of bewilderment. If the WQM staff cannot identify and support the changes and modifications from past language, how can the public be expected to make informed comment?

Another example of the confusion in this document is in the Treatment Works section. In the issue paper, it states that "All such facilities should be required to meet water quality criteria at designated points of compliance within the treatment facility waterbody or *immediately* adjacent surface or groundwaters". (emphasis added). However, in the regulation, the word *immediately* has been dropped, and the points of compliance phrase has been moved from within the treatment facility to some area outside of the facility to be specified in a permit! Again, the WQM staff was unaware at the time of the workshops and hearings of how this discrepancy arose, and had a difficult time discussing the implications of the change.

The WQS Advisory Group could have played a significant role in preventing many of these problems. But the group's participation was limited to internal debate and posturing, instead of functioning in a truly "advisory" capacity to address specific language as the proposals progressed. The final draft package itself was never reviewed by the WQSAG prior to its forwarding up the chain of command for departmental signatures, in contrast to the intent of several of the objectives from the groups charter. The confusing treatment works language that attempts to separate the waters of the State from waters of the U.S., hinges on the definition of navigable waters and the legitimacy of "water body to treatment works conversion". Both this TW language (which is currently under legal challenge) and the controversial cancer risk level language were never presented to the group at all -- but were still being written by

4.

WQM staff after the final WQSAG meeting.

Most of the technical deficiencies in these proposals have been overshadowed in the recent round of hearings and workshops by the public's outrage over the Human Health Criteria section and the cancer risk level choice of 1 in 100,000. WQM staff admitted at the October 25th House Resources Committee hearing that this "safety factor" does not consider the cumulative or synergistic effects of each pollutant. As you remember, I was unable to persuade the department last winter to keep the cancer risk level factor discussion with the rest of the human health risk equation. The cancer risk level, which has no basis in hard science, is part of the human health equation because many carcinogens appear to have no threshold dose. In other words, one exposure of an almost imperceptible amount of a compound like one of the 200 or so members of the dioxin-furan family can cause cancer. Dioxin, by virtue of its similarity in structure to the steroid hormones, has been found to have direct cell membrane and cytoplasmic receptor pathways that transfer the compound to the DNA. Once there, its ability to cause serious malfunctions in the cell's activity is enormous. The amount and frequency of that effect is dependent upon the individual's genetic predisposition, diet, exposure to other pollutants that may stimulate synergistic interactions, and physical status at the time of exposure.

Because of the enormous mathematical uncertainty of determining the effect of exposure on any person, in addition to the tremendous variability of effects that have been recorded from animal testing to date, the federal government has advised that effluent concentrations be reduced by a factor of a million in an attempt to protect the vast majority of people in our society. Alaskans are confronted with a disproportionate amount of risk because of the percentage of our population that consumes hundreds of times the amount of potentially contaminated fish. Even worse, Alaskans eat mammals and waterfowl that have further concentrated the toxins from the marine plants and lower consumers. We should therefore have an even higher safety factor than most other states. Instead, we are being told to accept the lowest standard applied nationally, a standard considered inadequate by 36 other states in our country, many of whom have the same industrial and municipal needs of Alaskan communities. It is tragic that we are involved in such a hotly contested debate over an order of magnitude of safety - as if the number was scientifically relevant in the first place - when in reality, no one can say what is safe, or what is an "acceptable level of risk" for another person. Obviously, if you or a loved one were the recipient of this anonymous dose of poison, then the risk was too great. The fact is that cancer is running rampant throughout our society, and the medical and scientific experts are at a loss to explain its increase in recent years. What we do know is that there is a growing body of evidence indicating that the rise in ubiquitous pollution in our air, water, and food, is linked to many of the cancers, auto-immune diseases, and reproductive and neurological disorders that are rapidly increasing in our population. For this reason we should be making every effort to completely eliminate the release of carcinogens and mutagens from our industrial discharges, consistent with the intent of the CWA.

Deputy Commissioner Treadwell spoke at the recent House Resources Committee hearing about the need for common sense in addressing these issues. I couldn't agree

more. He implied that there was something illegitimate about the public having a "political agenda". Certainly the public has an agenda - as does the administration! But to characterize the public as misinformed is not only wrong, it is an insulting disservice to the many Alaskans who have spent tremendous time and energy educating themselves over the past fifteen months, and making their feelings known to the administration over the last six weeks. Some are concerned with their families health. Others see their nonpolluting, sustainable industries being threatened for the benefit of short term highly polluting industries. All are people whose gut level common sense has told them that increasing the amount of toxic pollutants in our environment is a mistake. It would be a tragic abuse of power to ignore their advice.

Specific Comments to the WQS Re-revisions

70.010 General

- 1. (b) The antidegradation requirement is (e) not (d).
- 2. (c) Treatment Works (TW)

The State and Federal government appear to have very different ideas on what defines a water body as belonging to the U.S. or the State. Federal interpretation is extremely broad and includes all waters, even groundwaters, that eventually flow into a navigable water as waters of the U.S.

Sections (c) 1, 2, and 3, are very confusing and involve the state in a current legal challenge regarding the right of a discharger to "convert" a water body into a treatment facility. It would be foolish to allow the State via these regulations to permit discharges that have already been successfully challenged by the EPA, and that are currently being discussed for a national rule making. Regardless of the outcome of this issue on a federal level, Alaska should not allow a wetland or water body to be converted into a TW by placing a dam or other structure in such a way as to form an impoundment reservoir.

TW should be exempted from WQS **only** when the facility is totally man-made and constructed in a way that prevents **any** seepage into surface or groundwaters. Exemptions should only be considered on a site-specific basis, perhaps for publicly owned and/or operated sewage treatment systems. TW should not be permitted if they present a significant potential for adverse effects to either wildlife or public health.

- 3. (d) the issue paper states that WQS should be met **immediately** adjacent to the TW, but the regulation states WQS should be met at **points of compliance** further specified. This implies a mixing zone would occur beyond a TW. The regulations and issue papers must be consistent!

- 4. (e) is the ADEC's partial acknowledgment of the CWA Antidegradation policy; see comments above.

6.

70.020(b)I(B)I, (b)II(B)I Fecal Coliform

5. The EPA has stated that they will not authorize the state to change to a standard that is 7 years out of date. The state should be changing all of the criteria to the new enterococci standard simultaneously.

70.020 (b)I, (b)II, (b)I(A)I, (b)II(B)I, (b)II(C) Sediment

6. Suspended solids are considered to be a conventional pollutant by the EPA and it has been established by the courts that a combination of turbidity, settleable solids, and color are not an adequate surrogate for a suspended solids criteria in marine waters. The WQM staff's assurance that a suspended solids criteria may be reintroduced later is unacceptable. This change in the sediments regulation is an attempt to subvert the adjudicatory decision from December '92 regarding the State's lack of an adequate test for suspended solids. Instead of adopting the proper test, the State has chosen to change the definition of sediment so that a test of suspended solids will no longer be necessary.

70.020(b)I(A)i, (b)I(A)III, (C), (b)II(A)I, (C), (D) Toxic Substances

7. The new wording that switches the criterion for a substance from the Drinking Water to EPA standards or vice-versa is confusing. The state should retain the language "whichever concentration is less" to provide the most protection in the clearest manner.

8. Under the current regulations, toxicity testing must be done on the most sensitive species, this has been dropped without explanation, and is now written as a sensitive species.

9. It is stated that the State can choose "alternate methods and species as approved by the department" without requiring EPA approval. This is unacceptable. The NOEC testing procedure should not be substituted for the LC50 until standardized testing methods have been clearly defined.

10. No toxics should be allowed in any concentrations in shoreline or bottom sediments, because they would be trapped there and accumulate over time.

11. The EPA has repeatedly asked the state to adopt acute toxicity criteria for aquatic life -- this is the appropriate time and place in the regulations for this to occur. We are currently reviewing a permit for the Kelchikan pulp mill in an area that has had many instances of acute toxicity. Without an acute toxicity regulation, how can ADEC monitor, regulate or enforce compliance with the NPDES permit?

12. (b) II (D) retains only the EPA Water Quality Criteria. If there is no standard listed for a particular pollutant, how will that pollutant be regulated? (Marine water does get ingested, or could be desalinated, etc...)

7.

13. (b) II (D) why isn't the "free from toxics" language above included? Why aren't all of the marine uses together?

70.020(b)I(A)I, (b)I(A)III, (b)I(B)I, (b)I(C)(b)II(A)I, (b)II(B)II, (b)II(C) Color

14. There is inadequate guidance for determining the natural color of a given water body within this regulation.

70.020 (b)II(A)II Color

15. Flesh discoloration of seafood (especially shellfish) is known to occur at color levels of 5-15 CU. Replacing the numeric color standard for marine seafood processing with a narrative standard when there are known uses of preparing and packaging in marine waters is not protective of an existing use. The recent ADEC advisory to fish processors in Silver Bay because of color (and sludge) is a perfect illustration of why this relaxation of the color standard would be a mistake.

70.020(b)I(A)III, (C), (b)II(A)I, (C), Petroleum Hydrocarbons

16. The testing method proposed is inadequate because the procedure includes a settling period with no resuspension -- a toxic fraction of particulate hydrocarbons would be totally missed by this procedure.

17. Removal of the sample from an area below or away from a sheen would obviously reduce the amount of hydrocarbons that would show up in the test!

18. The LC50 test should not be dropped as an acute test without being replaced by another test. Chronic testing should be performed as well.

70.022 Human Health Risk Level

19. The constitutions of the U.S. and the state of Alaska guarantee equal protection under the law for every individual; this would preclude a state from determining that any person should suffer an increased risk of cancer for the economic (or any other) benefit of another person or group. An anonymous and involuntary human health risk for a carcinogenic pollutant that is dependent upon fish consumption, location, etc... is unconstitutional. (See comments in General section for further discussion).

20. The risk level as applied here fails to recognize that each carcinogen released by a discharger has additive and potentially synergistic effects, and that there are significant immune, reproductive, and neurological problems that have been identified at toxin concentrations far below those that have been implicated in carcinogenesis.

70.023 Chronic Toxicity

21. All toxicity testing should be conducted by methods and species approved by EPA; again, the most sensitive species phrase has been dropped.

70.025 Site-specific Criteria

22. (a) there is no definition for "reasonably demonstrates" in the definitions section of the regulations. The term "reasoned determination" was defined at the March 4-5 WQSAG meeting as: "Reasoned determination" means a written expression of a position or conclusion accompanied by supporting documentation. Supporting documentation shall be based on careful, balanced and critical review of available relevant information bearing on the subject of the determination and shall include all references consulted during preparation of the supporting documentation. The reasoned determination shall reflect the preponderance of scientific and technical information on the subject of the determination. This definition was considered acceptable by the WQSAG at that time. Since it was never brought back to the group for further consideration and therefore not rejected, it should be proposed at this time.

23. (a)(3) What is the rationale for having this statement in the regulations? EPA would consider a change in criterion a rule change and as such it would require EPA approval. Administrative criterion changes without public input and EPA approval are not appropriate.

24. (b) a "natural conditions" regulation should not be implemented until there is sufficient written technical guidance to provide the applicant and the technical staff with the information necessary to decide if the "natural conditions" should be used and how they should be determined. With so little data and dwindling ADEC resources, a change in criteria to "natural conditions" should only be allowed to reflect the most stringent natural condition, and not allow the department to, "in its discretion, determine a natural condition for one or more seasonal or *shorter time periods*" ... (emphasis added). ADEC does not have the personnel, time or money to do justice to this proposal.

25. This definition does not preclude the possibility that a discharger could release a larger volume of water at a "natural level of pollution" (e.g. because the water had been pumped from groundwater and then polluted) into a stream which would then increase the overall volume of higher polluted water which might have downstream effects not previously experienced.

26. (d) the term "waterbody as a whole" is undefined, and could allow for gross misapplications of this regulation. EPA's definition of this term describes effects that are not permitted in the whole water body, whereas ADEC is interpreting this to mean as long as something isn't happening in the whole water body, it's acceptable. This clearly needs to be resolved in a regulatory definition.

70.032 Mixing Zones (MZ)

The MZ language should be rewritten to state that a MZ for a limited group of pollutants under specific conditions would be the exception and not the rule. Regardless of the department's stated intentions to limit MZ in practice, the proposed language would allow every discharger to refer to other permitted MZ

9.

as precedents to substantiate the granting of their own MZ. The difficulties of realistic modeling and monitoring would permit multiple MZ to destroy a waterbody, and therefore violate the designated uses guaranteed the public under state and federal law.

27. (a) the department "will, upon application ..." should be changed to "may, upon application". The current wording of (a) places the burden on the public and the state to determine that a MZ is not appropriate, and can only be demonstrated after a facility has been operating for some extended period of time. The State needs the power to deny a MZ before the damage occurs. The failure of the current MZ regulations (which are far stronger than the proposed revisions language) is evident in the record of repeated permit violations of the now defunct Greens Creek Mine, the Red Dog Mine, and the Ballast Water Treatment Plant at Port Valdez. The pulp mills in S.E. Alaska have been operating without legal mixing zones, and have been responsible for multiple fish and bird kills over the past thirty years. As recently as this past August, the commercial fleet in Silver Bay was advised to not process their catch with water from Silver Bay because of the threat of tainting by the floating sludge and color present in the water at a distance of eight to ten miles from the pulp mill at Sawmill Cove. As mentioned above, the NPDES draft pulp mill permits which were going to address the potential of pulp mill MZ, were a major catalyst for this attempt at standards modification by ADEC in the first place.

28. (a)1(A) "significantly adverse levels" is totally dependent upon the definition of the term "waterbody as a whole", would only be determinable after the fact, and would place an impossible burden of proof on the public. It does not address the effect that a mixing zone might have on a subpopulation of a species, and assumes that we know how many members of a biotic community are expendable before irreparable damage is done to the overall population. The idea that toxic substances should be allowed to bioaccumulate, concentrate or persist in the environment at all is incongruous with the Clean Water Act and the concept of anti-degradation.

29. (a)1(C) should include a phrase regarding consumption of aquatic resources in addition to water supply and contact recreation.

30. Somewhere in Section (a) there should be a statement that addresses threatened and/or endangered species.

31. (a)3) "waterbody as a whole" is not defined.

32. (b) are these acute toxic compounds in acutely toxic amounts or chronic? Acute toxicity is in violation of the CWA, and we have no State acute toxicity regulations.

33. (c) "waterbody as a whole" is not defined.

34. (d) "reasonably demonstrates" is not defined, ADEC should require the best available technology, not methods found to be economically feasible.

10.

35. (e) what is meant by "or would unreasonably preclude"...

36. (f)(3)(A) what is meant by "a public health hazard is reasonably expected to occur"? Does this protect for all designated uses or does there have to be current human use? There should be a buffer zone between any mixing zone and an area where there could be a potential public health hazard.

37. (f)(3)(C) "irreparable" is inadequately defined. Are we talking about this season or geologic time? The difficulty of arriving at a workable definition for terms like these are the proof that MZ were never intended to be used on a regular basis, as would be allowed by the opening language.

Definitions

38. There is no definition for acute toxicity.

39. There is no definition for "waterbody as a whole".

40. There is no definition for "unreasonably precludes".

41. There is no definition for the time frame of "irreparable".

The above statements and all oral testimony submitted during the public hearings constitute the public comment for the Alaska Clean Water Alliance, prepared by Gershon Cohen, ACWA WQS Project Coordinator, WQSAG Conservation Representative.

cc: Governor Hickel
Senate and House Resource Committees
Attorney General Charles Cole

Alaska State Legislature

Senate Majority Leader
Chair, Judiciary Committee
Vice Chair, Community &
Regional Affairs



Member, State Affairs Committee
Committee on Committees
Western States Legislative Forestry Task Force
Legislative Council

Senator Robin L. Taylor

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November 12, 1993

Commissioner John Sandor
Dept. of Environmental Conservation
410 Willoughby Ave., Suite 105
Juneau, AK. 99801-1795


Dear Commissioner Sandor:

After closely following the public debate on your department's proposed revisions to the state water quality standards, I urge the formal adoption of the standards without further revision or delay.

As you know, I supported the standards as originally drafted more than a year ago. I also understand the decision to revise the original proposal in light of public comment. The revised proposal, developed with oversight from a citizens advisory group, is a common sense approach and needs no further revision.

Most of the comment against the proposed standards appears to have been generated by the public's natural concern over increased cancer risk. From the testimony I heard, most of those supporting more stringent risk levels thought the human health risk level of 1 in 100,000 applied to the general population. Somehow, despite workshops and public hearings, some members of the public fail to understand that the 1 in 100,000 risk level would only apply to people who consumed specific amounts of contaminated water or fish over a lifetime!

(more)

District A:

Hyder • Ketchikan • Kupreanof • Meyers Chuck • Petersburg • Saxman • Sitka • Wrangell

Senator Taylor

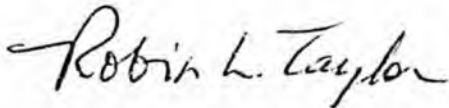
11/12/93

Page Two

To put it another way, if a group of 100,000 people ate and drank contaminated fish and water over a lifetime, the expected number of cancer cases in that group would increase by **one**.

The water quality standards as revised are both reasonable and responsible. They will serve to protect the public health without placing an undue burden on our economy.

Sincerely



Robin L. Taylor

RLT/ja

cc: David Sturdevant, ADEC
Rep. Bill Williams

ALEUTIANS WEST

COASTAL RESOURCE SERVICE AREA

November 12, 1993

Mr. Dave Sturdevant/WQM
Department of Environmental Conservation
410 Willoughby Ave., Suite 105
Juneau, AK 99801-1795

Dear Mr. Sturdevant:

Subject: Proposed Water Quality Standards Revisions

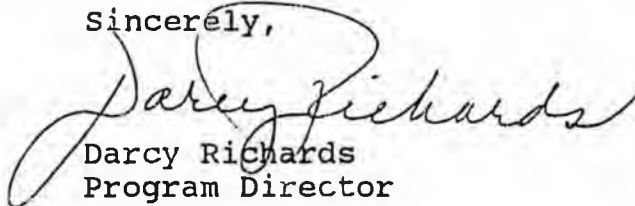
I made public testimony on, September 29, 1993, at the public hearing in Anchorage on the proposed water quality standards revisions and have previously informally submitted a copy of my testimony to you.

On behalf of the Aleutians West CRSA Board of Directors, I would like to formally submit a written transcript of that testimony, with minor editing changes, into the record.

Please keep the AWCRSA informed of the status of the revisions and any further opportunity for public comment on this important issue.

Thank you for the opportunity to comment.

Sincerely,



Darcy Richards
Program Director

Attachment:

cc with attachment:

- ✓ Rep. Bill Williams, House Resources Committee
- Charles Findley, EPA, Region X
- AWCRSA Board of Directors

ALEUTIANS WEST

COASTAL RESOURCE SERVICE AREA

Public testimony presented September 29, 1993 in Anchorage
Proposed Water Quality Standards Revisions

My name is Darcy Richards. I am the program director for the Aleutians West Coastal Resource Service Area, P. O. Box 220170, Anchorage 99522. The AWCRSA is the coastal district for the western Aleutians. The CRSA has been concerned for several years about the water quality problems in marine waters in Unalaska. DEC has recognized, to a certain extent, those problems by listing all five inner Unalaska bay water bodies on the impaired list for non attainment of water quality standards.

I would like to comments on some of the proposed revisions.

Site Specific Criteria

It is not clear for what reasons or purpose an applicant could apply for establishment by the Department of site specific criteria. Would existing permit holders or new applicants be able to apply for site specific criteria establishment in waters that are already declared impaired for non- attainment of water quality standards?

This appears to be an avenue to circumvent the reclassification of waterbodies process which requires a high level of documentation.

It was stated last evening that this is a departure from the EPA aquatic life criteria in favor of an Alaska criteria. It was further stated that DEC does not have the funds to establish an Alaska criteria or determine sensitive species or habitats. DEC is asking the public to discard one established defined set of criteria for an undefined set of Alaskan criteria which it does not have the ability to establish.

It is proposed that "natural conditions" be those before human contact. It is unclear as to how "natural conditions" will be discerned.

A further clarifying statement that "sufficient and available" information will be used to determine natural conditions raises some questions as well. It is our experience that there is a significant lack of information about natural conditions in the Aleutians, even in a major population and processing center such as Unalaska. If such sufficient information is not available would the DEC deny the permit or issue in the absence of available information? It has been our experience that discharge permits are issued

Aleutians West CRSA
Public Hearing Testimony - 9/29/93
1993 Proposed Revisions to Water Quality Standards

without sufficient background information to discern the potential adverse impacts to the receiving waters and biota. The most recent NPDES permit was issued to an Unalaska seafood processor without the State or EPA requiring pre-discharge background information to be gathered. Now all data from that waterbody, by default, includes the discharge in the ambient condition. This situation is certain to arise again under these proposed site specific provisions. A case in point is found under proposed 18 AAC 70.025 (b) which states: "If a natural condition varies with time, the natural condition will be determined as the prevailing highest quality natural condition measured during an annual, seasonal, or shorter time period prior to discharge or operation OR the actual natural condition measured concurrent with discharge or operation." We do not believe measurement of natural conditions should be less than the annual cycle. A short time period measure is arbitrary and indefensible. It would open the door for industry to use short time periods to justify degradation. Without extensive species and habitat information, it is very difficult to determine whether the biota can be sustained at the "short time period level" for a longer time period. The clause which states "or the actual natural condition measured concurrent with discharge or operation" is in conflict with the presumption that natural conditions means before human contact and is therefore meaningless.

We foresee major problems with discerning "natural conditions" and political solutions applied to these problems. The Department and EPA do not have the good track record in the Aleutians of insisting that applicants gather the needed data prior to discharge. In fact, they have taken the wait and see approach. They issue the permits and wait to see what impacts arise. This is contrary to the AWCRSA enforceable policies which call for reasonable assurance that the proposed discharge will meet water quality criteria for the receiving waters. The burden of proof is on the applicant to demonstrate their proposed activity will meet state standards, instead the state and federal government allow them to demonstrate after the fact with sorry consequences. This gamble with the environment has contributed to five impaired water bodies in Unalaska.

Further clarification is needed on how the natural condition before human contact will be determined. Will historical information be included? Will anecdotal information by long term residents be considered acceptable as historical data? In the absence of pre-human contact information, does the Department anticipating using extrapolation from other waterbodies? We do not favor this approach, as

extrapolation is too speculative and defeats the site specific definition.

It is not clear that there is a need for a site specific criteria to be established for all the uses in deference to the interest of one use. It will be a time consuming and expensive endeavor to determine appropriate criteria for each use. If all criteria for all the uses must be changed, how does this differ from reclassification of a waterbody?

Sediment/Settleable Solids

While the desire to clear up ambiguous terminology is commendable, we find it disconcerting that the present standard would be dropped, until a technical advisory group is formed, sometime in the future to deal with this issue, particularly, in light of ADF&G contention that TSS is meaningful for marine waters.

Toxic Substances

We would like clarification as to whether seafood processing waste which may contribute to low dissolved oxygen levels in the receiving waters is considered a toxic or deleterious organic substance?

Mixing Zones

Provisions should include prohibition of mixing zones in marine waters which have been declared impaired for non attainment of existing water quality standards.

Provisions should include consideration of cumulative impact, to which a single mixing zone may be a contributor.

Packet of information

The packet of information did not present who made what comments. We consider this to be pertinent information for the public to have. We suggest in future information packets this information be included.

In our opinion, these proposed changes would weaken the state water quality standards, which is very disconcerting to us while we are trying to resolve water quality problems in our district. The changes proposed by the Department would exacerbate those problems.

Thank you for the opportunity to comment.

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October 17, 1993

Commissioner John A. Sandor
Alaska Department of Environmental Conservation
P.O. Box 0
Juneau, Alaska 99802-1800

RE: Proposed Revisions to Water Quality Standards

Dear Commissioner Sandor,

Please take the time to personally read these comments as I want to do more than make specific recommendations for change; I want to enlighten you about how you need not view your pending decisions as making a choice between economic development and protecting the environment. With creative considerations you can promote both agendas. First, some prodding for creative considerations, then onto specific recommendations.

Are you aware that many prominent corporations and economists now realize that addressing environmental concerns at the front end of the extraction and manufacturing cycle is almost always cheaper and easier than solving back-end environmental problems? Instead of setting aside contingency funds for liability lawsuits, companies in the cases of toxic or carcinogenic pollutants, many companies have discovered it is most effective to eliminate, reduce, or ameliorate the pollutant ahead of time. Here is how Michael Silverstein, an economist who writes regularly for the The Wall Street Journal and In Business Magazine puts the environmental - economic connection:

"The best and brightest in the American marketplace soon enough realized that what others were lamenting as a "forced" regulation-induced, dietlike change advanced a larger market agenda and their own best interests. They came to identify environmental economics as just plain old good economics; environmental engineering as superior engineering; and environmental management as quality management. With these realizations came an end to compliance thinking aimed at simply keeping government off their backs and making peripheral public relations point. It was the beginning of a true commitment to getting ahead of the regulatory wave for purely economic purposes."

Mr. Sandor, if you just expand your vision, you'll see that Alaska doesn't need to cast clean water regulation as a choice between good economics and environmental protection. Alaska can get on the awareness curve of competitive, efficient, market savvy companies. For example, the dioxin standards of the State of California was supposed to be the death knell for the pulp industry there. Instead the pulp and paper industry found renewed market interest because they

reduced dioxin run-offs into waterways by 80% in recent years and have embraced new de-inking technology for recycling. (Silverstein, 1993 The Environmental Economic Revolution)

Not only does it make sense from the marketplace for industries such as pulp and mining to get on with front loading pollution abatement, but it also makes sense from the economic perspective of compatibility with the fishing and tourism industries. The perception that Alaska sets the lowest possible water quality standards is a grave threat to the fishing and tourism industries. My earlier general comments (enclosed) focused on the economic relationship between water quality and seafood marketing.

What you are up against is resistance to change by Alaska's pulp and mining industries. But change is not necessarily bad when viewed in the broader context of environmental economics. In fact, many expanding companies have found change to be positive when what was once waste, becomes a new by-product; when what was once viewed as forced compliance now makes the company more energy efficient. To quote Mr. Silverstein once more:

"This [environmental economic revolution] occurred largely because government elites in Germany, and Japan and business elites in the United States, finally began to appreciate the growing correlation between what produced contemporary wealth (efficiency) and what destroyed wealth (pollution). Pollution is laziness. Pollution is underdeveloped management." Change - pollution reduction and environmental protection - can be positive, particularly for Alaska (Odd, that I'm pleading this case to the Commissioner of Environmental Conservation). In fact, from my way of thinking, Alaska with its strong seafood and tourism industry has the most to gain economically from prudent changes in water quality standards.

Now onto the specific changes, I recommend. These are *in addition* to those changes outlined in my Sept. 30 th letter.

Human Health Risk Level

Thirty-six states, including most of the Pacific Northwest, have chosen a higher level of protection for its citizens. Alaska should adopt the level of protection that most leading companies have worked with. . .10 to the minus 7. This level will ensure the health of residents who eat a lot of fish, as well as the fisheries resource itself.

Mixing Zones

As with many of the proposed revisions the burden of proof for pollution is put on the public instead of the industry. The one case where it should be clearly shifted is mixing zones. At a minimum, the language should reflect that mixing zones are an exception and not the rule. Furthermore, allowing mixing zones in ADF&G index streams is totally unacceptable. These streams are essential to assess the health of wildstocks and for managing the salmon fisheries.

Color

The numeric standard for color should not be deleted. Just this summer, your department issued a warning to fishermen not to use the waters of Silver Bay and Eastern Channel near Sitka to process their fish because of the high color values. This is an example of why the numeric standard is important to retain.

Toxic Substances

Chronic tests for toxicity should be mandatory. . .thereby leveling the playing field for all industries using or producing toxic substances. Acute toxicity tests should also be mandatory

because without these tests, an industry could legally pump out toxic material which could be diluted enough to meet chronic toxicity test, yet could still kill fish and other aquatic life before the pollutants are diluted.

In closing, I hope you give these comments creative consideration. I would appreciate knowing if you ever read these comments.

Sincerely,

A handwritten signature in cursive script, appearing to read "Kathryn Troll".

Kathryn Troll
Executive Director

c. c. Chairman Bill Williams and House Resources Committee
c.c. Chairman Mike Miller and Senate Resources Committee

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September 30, 1992

Commissioner John A. Sandor
Alaska Department of Environmental Conservation
P.O. Box O
Juneau, Alaska 99802-1800

Dear Commissioner Sandor,

On behalf of Southeast Alaska Seiners Association, I am submitting general and specific comments on DEC's proposed revisions of the State Water Quality Standards. Based on the technical comments submitted by United Fishermen of Alaska (UFA) and ADF&G Habitat Division, it clear that DEC is proposing to make water quality standards less stringent in most instances. Hence, my general comments will focus on the impacts caused by this systematic weakening of the state regulations.

General Comments

The feature report of Consumer Reports detailing the presence of dioxins and PCBs in fish, confirmed for the entire Alaska seafood industry the critical importance of having clean fish from pristine waters. Part and parcel to ASMI's efforts to diffuse the negative impact was Alaska strong water quality standards. Like many industries dealing with informed, concientous consumers the Alaska seafood industry recognizes the economics of perception and consumer confidence. ASMI even includes this statement in their press packets:

"According to National Oceanic and Atmospheric Administration (NOAA) research, Alaska has the world's most pristine waters. Analysis of strategic sample sites conducted by NOAA, such as the 1984-85 "National Benthic Surveillance Project: West Coast," shows Alaska's fishing grounds to be located in waters free from heavy pollutants."

Instead of holding onto this special marketing advantage at a time when Alaska's salmon industry faces stiff competition, DEC is proposing just the opposite. While changing the regulations to allow more dioxin, arsenic and other heavy metals and to expand mixing zones may not result in immediate pollution of our pristine waters, it is clearly moving in the opposite direction. With the prospects of world class mines throughout Southeast Alaska, with Ketchikan Pulp Company already on EPA's list of ten worst industrial sites (also covered in the press), and with the dominating presence of Alaska as an oil state, the likelihood of DEC's revisions undermining consumer confidence in Alaska seafood is indeed very real.

As noted by the enclosed newspaper clipping, Governor Hickel once understood this fundamental economic relationship between water quality and seafood marketing. This relationship is of critical importance to the state's largest employer, the seafood industry. I hope through a

earnest consideration of the comments provided by UFA that the Hickel Administration will once again realize and protect this economic relationship.

I know that resource development is a high priority of the Hickel administration. Therefore, the challenge is to find reasonable ways to promote resource development without degradation to the environment or loss to another resource industry. This challenge appears to have alluded DEC. To assist you in your quest for regaining the economic relationship discussed above and to enlighten you as to how address this challenge, I will highlight specific recommendations of UFA.

Specific Comments

1. UFA recommends first and most importantly that DEC adopt the following narrative statement relating to toxic discharges in the general section of the water quality standards 18 AAC 70.010:

"There shall be no discharge of toxic materials in toxic amounts. For point source discharges, this shall be interpreted as no discharges in excess of the numeric criteria for acute toxicity testing of whole effluent as measured at the end of the discharge pipe, and no discharges in excess of the numeric criteria for chronic toxicity testing of whole effluent outside the boundaries of the mixing zone."

This statement would clearly indicate the state's intent to maintain its high water quality standards in narrative language. As such, this statement has positive marketing value for Alaska seafood.

2. To assure that one resource industry isn't promoted at the expense of another resource industry, UFA strongly recommends:

"The state should develop a "Clean Water Task Force" with representatives from all interests to approach the challenge of maintaining high water quality while allowing discharge of nonconventional and toxic pollutants. Key elements of success for the "Clean Water Task Force" are obtaining an objective moderator and a dispute resolution format."

3. To eliminate too much discretion by the department and to promote treatment at realistic cost levels for industry, UFA proposes this language change for:

(a)(3) " A mixing zone will be granted only after the applicant has shown to the department's satisfaction that the wastes or substances that may exceed the water quality criteria will be treated using [methods found by the Department to be most effective and feasible] all technological and managerial methods available for pollution reduction and removal that are economically achievable, and [at the discretion of the department] discharged in a manner that maximizes initial dispersion and dilution."

4. Recognizing that spawning areas serve as the economic nursery for the salmon industry, UFA is adamant that DEC accept this language:

(e)(3)(iv) mixing zones are prohibited in anadromous and resident game fish spawning areas. (period!)

5. To exercise this regulatory authority in a responsible manner that balances environmental,

economic and social concerns, UFA strongly recommends that a new subsection be added as follows:

"(i) mixing zones are not authorized in anadromous and resident game waters, and other water with resident fish species of local cultral or social significance without the express concurrence of the Alaska Department of Fish and Game;"

ADF&G has the statutory responsibility for protecting aquatic life and its habitat. This would only allow ADF&G to properly excercise its authority.

6. With a strong technical back up, UFA recommends:

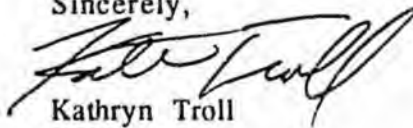
"for marine waters adopting a dioxin standard of 0.00006 ppq for human health based on the risk level of one in a million, a fish consumption rate of 65 g/day, a bioconcentration factor of 210,000 and a cancer potency factor of 86,750."

DEC must bear in mind that they are proposing a statewide health risk; it will not just be applied to the two pulp mills in Ketchikan and Sitka. As indicated above a market scare from dioxin-contaminated fish could have ripple effects statewide, much like the botulism scare in 1981 which resulted in depressed fish markets and prices for several years. A market scare from dioxin would be more difficult to respond to than a market scare from botulism, as dioxin is rightly perceived as a "polluted environment" while botulism is perceived as "processing error". A polluted environment is far more difficult to rectify. This marketing concern is not concoted as a defense for a stronger standard; it is very real as evidenced by the Consumer Reports articles which have made it tougher to convinve non-seafood eaters to turn to seafood as a protein choice over chicken or pork. This legitimate marketing concern is only excerbated by DEC's clear intention ot adopt a dioxin criterion less stringent than the standard recommended by EPA.

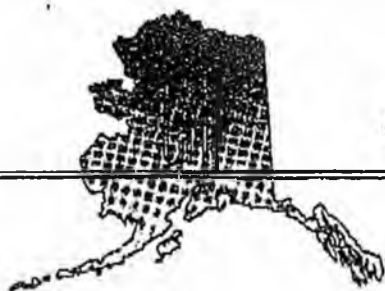
7. The definition of water should not be changed to allow unlined tailings ponds to be exempt from water quality standards. When there is technology readily available which can mitigate and prevent environmental degradation it should be used. Lining tailings pond is standard practice in many other states; states who don't even have valuable fisheries to protect. Unlined tailings ponds and other waste water treatment facilities containing levels of toxic waste in excess of water quality standards could contaminate ground and surface waters, including fish spawning areas. As such, UFA encourages the state to leave the definition of water as is.

There is nothing wrong with the state assuming responsibility for discharge of its pollutants into its waters; only the state must do it in a manner that is clearly responsible to the environment and other resource industries. Along with assuming this responsibility the state must make a policy and fiscal commitment to monitor, regulate and enforce its standards. To do anything less is a diservice to Alaska.

Sincerely,



Kathryn Troll
Executive Director



Council of Alaska Producers

P.O. Box 22653 Juneau, Alaska 99802

November 10, 1993

The Honorable John Sandor
Alaska Department of Environmental Conservation
410 Willoughby Avenue, Suite 105
Juneau, Alaska 99801-1795

Re: Proposed Revisions to Alaska's Water Quality Standards

Dear Commissioner Sandor:

Thank you for this opportunity to comment on the proposed revisions to Alaska's water quality standards. The proposed revisions reflect considerable progress on a number of critically important technical issues. However, the procedural and administrative processes by which the standards are enforced need to be addressed as well.

The current proposals retain much of the vague and undefined terminology which made the 1979 standards unworkable. The Council of Alaska Producers strongly supported the Advisory Group which was formed to assist in the development of workable standards. Thus, we are disappointed that so many suggestions from the Advisory Group and from public comments on workability were not incorporated into the revisions.

Our specific comments on the revisions are set forth below, along with suggestions for further improvement.

SPECIFIC COMMENTS ON
PROPOSED REVISIONS TO WATER QUALITY STANDARDS

18 AAC 70.010. GENERAL.

§§ (c) and (d) (The "constructed treatment works" sections)

We support the inclusion of the "constructed treatment works" provision. The provision clarifies the current regulations and guarantees that Alaska's water quality standards will not prevent essential wastewater treatment. However:

- Under (d), water quality standards must be met in surface waters adjacent to the treatment works and in groundwater at specified points of compliance, but the regulation does not

provide any guidance as to where such points of compliance should actually be set. At the public workshop, DEC officials indicated variously that monitoring wells should be as close as possible to the facility, a few hundred feet downstream, or within a few hundred yards. The regulation should specify that points of compliance will be fixed a sufficient distance from the facility to allow for the installation and effective operation of any necessary seepage interception wells or structures.

- Subsection (d) requires that treatment works be as small as practicable. Practicability is not defined, and is a somewhat ambiguous concept. We suggest the following substitute language:

A treatment works must be as small as is technologically and economically feasible.

§ (e) (The anti-degradation section)

This section is filled with the sort of vague and undefined language that makes some of the proposed standards unworkable as written. For example:

- The requirement that an applicant or petitioner must make showings "to the department's satisfaction" is completely unworkable. The "department's satisfaction" is nowhere defined. Currently, such language results in unending discussion and repeated requests for more information. Guidelines must be provided so that an applicant or petitioner can anticipate what needs to be in a petition or application. We suggest that an applicant be required to show "by substantial evidence" instead of "to the department's satisfaction." Substantial evidence has an established legal definition.
- Subsection (e)(3) requires that wastes be treated using "the methods found by the department to be most effective." How is DEC going to make such findings? DEC is not in the engineering or research and development business. Past experience suggests that DEC will not provide guidance, but will instead question an applicant's proposal in an endless cycle of reports and requests for more information. It is better simply to hold dischargers to performance standards, letting companies and municipalities hire expert engineers to figure out the best methods of satisfying the standards. Such an approach puts the burden on dischargers, reducing demands on agency resources. It also allows greater flexibility to adopt new methods as these become available.

- The clarity of subsection (f) should be improved. The language of this section currently requires treatment and control of the discharge "to ensure that the quality of the receiving water meets the standards set by this chapter." We suggest that this be changed as follows:

...to ensure that the quality of the receiving water satisfies the requirements of this chapter.

The change is necessary to avoid confusion. Without the change, a reader might easily conclude that treatment and control is required if the receiving water does not meet the numeric criteria set in this chapter. Such a reading would undermine the provisions of the chapter allowing site-specific standards which replace numeric criteria.

18 AAC 70.020(b)I(A)(i) et al. SETTLEABLE SOLIDS.

We strongly support the changes to this section. By making it clear that the "no measurable increase" requirement applies to settleable solids as measured by the Imhoff cone method, DEC has greatly improved the regulation. The old reference to "sediments" was unclear and led some observers to believe that the standards required slow and expensive laboratory measurement of TSS (Total Suspended Solids).

18 AAC 70.022. HUMAN HEALTH CRITERIA.

We strongly support the choice of a risk level of 10^{-5} over the 10^{-6} level advocated by some parties. EPA has established a range of acceptable risk levels, from 10^{-4} to 10^{-6} . In its own newly-proposed model for toxic pollution control in the Great Lakes region, which many are hailing as a likely national model for water pollution control, EPA has tentatively settled on 10^{-5} as the appropriate risk level. Furthermore, EPA recognizes that 10^{-4} might be an appropriate alternative level and has invited public comment as to whether it should apply 10^{-4} in the Great Lakes model.

The 10^{-4} risk level provides adequate protection under many Alaskan circumstances. The 10^{-6} level is substantially overprotective. In a world where we have a one in three chance of developing cancer from all sources, adding a one-in-a-million chance of developing cancer from a particular source represents a 0.0003 percent increase in total risk. The 10^{-5} level is more than adequate to protect human health under circumstances prevailing in Alaska.

Furthermore, Alaskans will not actually be exposed to this level of risk. The pathways model used to reach this risk

Comments on Proposed Water Quality Standards

Page 4

target incorporates numerous conservative assumptions, some of which are too conservative for Alaskan conditions. For example:

- Exposed population: The chosen level of risk will exist only for people who are exposed to the pollution for an average 70-year lifetime. Yet Alaska has a young, small, and mobile population and only a very few sources of pollution. Thus few if any people will be exposed to water pollution continuously for 70 years.
- Fish consumption: The chosen level of risk, as applied to marine water quality, will exist only for people who eat at least five pounds per year (for life) of contaminated fish. Although Alaskans certainly eat more fish than the national average, this number is nonetheless too high. The model assumes that all fish eaten are contaminated. In Alaska, there is no evidence at all of fish contamination. Since pollution sources are few and fish (especially salmon, Alaska's most popular food fish) very mobile, the number of Alaskans actually eating this much contaminated fish is likely to be vanishingly small.
- Water consumption: In fresh water, the chosen level of risk will exist only for those who consume two liters of contaminated water per day. This is in addition to the five pounds of contaminated fish and again must take place continuously for 70 years. However, current figures suggest that 1.4 liters per day is a better nationwide average for drinking water consumption, and in the cooler temperatures predominant in Alaska the figure may be even lower due to reduced frequency and duration of perspiration. Moreover, few if any Alaskans are likely to spend 70 years drinking water from the same contaminated source.

18 AAC 70.025. SITE SPECIFIC CRITERIA.

Although the idea behind this section is an important addition to Alaska's water quality standards, the proposed standard is flawed. The flaws impose a series of possibly insurmountable impediments to the use of site-specific criteria.

§ (a) (The general site-specific criteria section)

We support the inclusion (in this subsection and elsewhere) of language specifying that decisions will be made on the basis of available evidence. This requirement will be very helpful in cutting short the extended process of studies and reports which has often delayed the permitting process in the past.

This section, however, should be reworded as follows:

Comments on Proposed Water Quality Standards

Page 5

(a) The department shall [WILL, IN ITS DISCRETION] administratively approve in its permits, certifications, or other approvals under (b) of this section, or establish in regulation under (c) of this section, site-specific water quality criteria that modify the water quality criteria set out in 18 AAC 70.020(b) if available evidence reasonably demonstrates to the department that:

(1) for reasons specific to a certain site, a criterion is more stringent or less stringent than necessary to protect the corresponding use class;

or

(2) [A CRITERION WOULD REQUIRE THAT THE RECEIVING WATER AT A CERTAIN SITE BE OF HIGHER QUALITY THAN NATURAL CONDITIONS; OR

(3)] a criterion would be better expressed in terms different from those used in 18 AAC 70.020(b).

These changes are necessary for the following reasons:

- As written, the section gives DEC discretion to approve site-specific criteria under certain circumstances, but allows DEC to deny a request for site-specific criteria for any (or no) reason. If the standards are intended to govern DEC's discretion, it makes more sense to apply the standards directly to DEC's decision. However, DEC retains the power to refuse to modify the criteria if the standards are not met.
- We propose to delete subsection (2) because it conflicts with subsection (b). Under subsection (b), if an applicant demonstrates that the natural conditions of a water body are lower than the regulatory criteria, the natural conditions "constitute" the criteria. There is no need for DEC to approve site-specific criteria or modify the regulatory criteria when these have already been modified by operation of subsection (b).
- The intent of subsection (3) is unclear, particularly in light of how the phrase "available evidence reasonably demonstrates" in the text leading up to the subsections might be construed. The decision to establish site-specific criteria should not be arbitrary. Instead, it should be based on substantial evidence. Historically, "available evidence" has been accepted to set discharge limits in municipal discharge permits based de facto on site-specific criteria but almost never for non-municipal discharges. For instance, due to site-specific criteria, the recent Mendenhall Draft NPDES permit is silent as to BMPs, arsenic numbers, and the mixing zone, all of which a non-municipal discharge permit would have to address.

§ (b) (The natural background conditions section)

It is very important to consider natural background when setting effluent limits. We strongly support a system for doing so. However:

- Natural conditions are defined as the conditions existing "before any human-caused influence." This definition is unworkable. In a water body subject to numerous influences, how is it possible to tell how much of a particular pollutant is the result of human influence? For example, how do you attribute some sediment to natural erosion and some to up-stream construction projects? At the workshop, DEC officials indicated that the applicant would have to make an estimate and then convince DEC of the accuracy of that estimate. Without guidance, or even a definition of "human-caused influence," this could be an impossible task. Moreover, the impossibility of a reasoned answer to this question ensures repeated and protracted litigation.
- This subsection provides that if natural conditions "are demonstrated" to be of lower quality than the established water quality criteria, the natural conditions "constitute" the applicable water quality criterion. We support this provision wholeheartedly. However, stating that DEC will approve natural background conditions as criteria "at its discretion" undermines this provision. Similarly, the last sentence discussing "approval of a natural condition" undermines the effect of the provision as a whole. If natural background conditions "constitute" the applicable criteria, DEC is not in a position to "approve" the criteria. It seems likely that the intent is merely for DEC to pass judgement on the applicant's characterization of natural conditions. In order to reflect this intent, the last sentence should be deleted and the first two sentences should be reworded as follows:

If it is demonstrated by substantial evidence that the natural conditions in a waterbody are [DEMONSTRATED TO BE] of lower quality than the water quality criteria for the use classes in 18 AAC 70.020(b), the natural conditions constitute the water quality criteria. Upon application, or on its own motion, the department [WILL, IN ITS DISCRETION] shall accept a demonstrated [APPROVE A] natural condition as a site-specific water quality criterion.

- It is unclear what purpose the public notice and comment period serves. Environmental groups will use this opportunity

to thwart development by contesting necessary applications, and yet the only question which should be at issue is a purely scientific one: Are natural conditions of lower quality than the regulatory criteria? Since this is not a question of policy or rule-making, public participation is not essential or desirable. Public notice and comment requirements are well established for rule-makings and permit decisions under Alaska's Administrative Procedure Act and the ACMP review process regulations. The specific notice and comment provision in this subsection is surplus and should be deleted.

§ (c) (The site-specific-criteria-by-regulation section)

See above comments on "discretion", "available evidence", and "reasonably demonstrates to the department" wordings.

§ (d) (The burden of proof section)

This section puts the burden on the applicant to provide "all information the department deems necessary" to modify an existing criterion. There are a number of problems with this:

- Despite language in the other sections which suggests that the department should be limited to available information where such is sufficient, this section would allow DEC to "deem" that more study is required, irrespective of whether information already available is sufficient from a science viewpoint. Accordingly, the process could become protracted and expensive.
- If an applicant provides information amounting to substantial evidence that a natural background condition is of lesser quality than the regulatory criteria, that should satisfy DEC, unless DEC can show that the information is flawed.
- An applicant should never bear the burden of proof unless the standard of proof is explicitly spelled out in regulation. Whenever an applicant bears a burden of proof, the information required should be listed in the regulations or a definable, reviewable legal standard like "substantial evidence" must be used.

18 AAC 70.032. MIXING ZONES.

We strongly support the mixing zone proposal. If mixing zones were not allowed, all Alaskans would suffer a diminished quality of life due to additional costs of operating domestic and industrial treatment facilities and the resultant loss of economic activity and jobs, because mixing zones often are required for operations to be economical while satisfying water quality standards.

The mixing zone provisions suffer, however, from many of the flaws discussed in the comments on site-specific criteria. Specifically:

§ (a)

- The proposal allows mixing zones only in DEC's discretion. The regulation already imposes limits on the circumstances under which a mixing zone is allowed, so DEC does not need seemingly unlimited discretion to reject an application for a mixing zone. Thus the main part of (a) should be rewritten as follows:

In applying the water quality criteria set out in this chapter, the department shall [WILL], upon application [AND IN ITS DISCRETION] prescribe in its permits or certifications a volume for dilution of an effluent or substance within a receiving water unless available evidence reasonably demonstrates that....

[an alternative formulation:

In applying the water quality criteria set out in this chapter, the department shall [WILL], upon application [AND IN ITS DISCRETION] prescribe in its permits or certifications a volume for dilution of an effluent or substance within a receiving water unless substantial [AVAILABLE] evidence available at the time the permitting or certification decision is made [REASONABLY] demonstrates that....]

- Once again, the vague formula of "available evidence reasonably demonstrates" is used. This should be replaced by "there is substantial available evidence that." If the intent of this section is to bind DEC to using available evidence (which we support) then this should be made explicit, as a limiting clause in subsection (g).
- In subsection (a)(1)(B), "biota" should be defined to mean commonly used indicator species. Otherwise, evaluation or testing of all biota might be required. This would be an impossibly large and expensive undertaking.
- In subsections (a)(1), (a)(2), and (a)(4), the word "could" must be replaced with "would" or a similar phrase connoting more than a mere possibility or speculation.

§ (b)

The second sentence of this subsection should read:

A discharge may not result in levels of a toxic substance that would [COULD] cause a toxic effect in the water column, sediments, or biota outside the boundaries of the mixing zone.

Again, the change is to ensure that the language connotes more than mere speculation.

§ (d)

This whole subsection is unworkably vague. It is essential to replace vague and undefined language with concrete terms which make clear the respective rights and duties of DEC and dischargers. Thus it should be rewritten as follows:

A mixing zone [MUST BE AS SMALL AS PRACTICABLE AND] will be granted only after the applicant has provided to the department substantial evidence showing that [REASONABLY DEMONSTRATES THAT] a waste or substance that might exceed the water quality criteria will be treated to remove, reduce, and disperse pollutants, using the [METHODS FOUND TO BE] most effective and technologically feasible methods, consistent with the highest applicable statutory and regulatory treatment requirements.

These changes are needed because:

- The "small as practicable" requirement is vague and redundant, since subsection (f) provides detailed limits on the sizes of mixing zones.
- The phrase "methods found to be most effective and technologically and economically feasible, consistent with the highest statutory and regulatory treatment requirements" is too vague. It is not clear who does the finding, and it is important to ensure that only "applicable" statutory and regulatory treatment requirements can bar feasible treatment methods. Otherwise, the bare existence of an inapplicable standard (applied in some other context) could require expensive and unnecessary treatment.
- This regulation places the burden of producing evidence on the applicant. Accordingly, if the information required is not or cannot be listed in the regulations, a definable, reviewable legal standard like "substantial evidence" must be used.

§ (e)

"Available evidence reasonably demonstrates" should be replaced with "the department has substantial evidence demonstrating that". DEC should not be able endlessly to demand new studies. DEC should not be able to refuse an application unless DEC has (without demanding more studies) legally sufficient evidence to support its position.

§ (f)

The mixing zone size limitations in this subsection make more sense than the "as small as practicable" language. However:

- The "reasonably demonstrates" language should be replaced with a substantial evidence requirement, which has a set legal meaning.
- Subsection (f)(3)(D) should be reworded. The Advisory Group comments pointed out that resident game fish are often broadcast spawners and thus have no redds. Yet the proposed standards prohibit mixing zones in resident game fish spawning redds. The phrase "area of" is also rather vague. It might or might not encompass an area where spawning once occurred or occurs intermittently. "Area" is an overly broad description of the spawning grounds which might legitimately need protection. After all, the whole of "Southeast Alaska" might be viewed by some as "an area where anadromous fish spawn." We propose that the prohibition be limited to the following:

- 1) Areas where anadromous fish spawning redds exist annually or two out of four years as determined by ADF&G from available information;
- 2) In areas of significant resident game fish spawning, based on substantial evidence.

18 AAC 70.110. DEFINITIONS

§ (1)

The proposed definition of "adverse levels" should be changed as follows.

(1) "Adverse levels" means that conditions within a mixing zone are not adequate to ensure survival, growth, and reproduction of [ALL] representative organisms that are commercially available and normally used for indicator species in the region.

that [MIGHT OTHERWISE ATTEMPT TO] reside within the mixing zone.

Such a change is necessary, or a never-ending process of controversial monitoring studies and litigation likely will result, because:

- There is no way reliably to predict what organisms might attempt to reside in a site selected for a mixing zone.
- Natural variation in reproduction in most organisms is such that impacts will be very hard to detect.

GENERAL COMMENTS

A key definition is missing. This definition would define how to determine statistically "specific natural conditions", how to evaluate numeric criteria, and how to determine compliance with water quality standards. Without a definition or prescription of a statistical method, the numerical standards are almost meaningless. If the standard is 1 mg/l, and 1000 tests of water quality indicate 0.9 mg/l and one indicates 1.1 mg/l, a violation potentially has occurred. Using accepted statistical analysis, however, there should not be a violation. Every sample and every analysis is affected by statistical variability, because laboratory techniques, sampling techniques, and background or "natural" conditions all have some statistical variation.

We suggest that standards, background, and criteria be statistically defined. We should be looking for trends, rather than specific numbers in single samples. The following procedures should apply:

- A statistically significant number of samples is necessary to define averages, background concentrations, or compliance with a numeric standard.
- A trend may be defined as a long-term (more than 5 sample intervals) change (increase or decrease) from a sample set mean that will result in a regression developed trend-line that will exceed 2 standard deviations above the baseline or background mean for the sample set.
- Single sample compliance may be defined as a sample that, for the data set, is 2 standard deviations above the defined numeric standard or mean background concentration as applicable.

Using such procedures, a compliance test, trend analysis, or comparison with a statistically defined background condition is

Comments on Proposed Water Quality Standards

Page 12

possible. Currently, one test in a thousand one percent over the numeric standard or over the "background" can be construed as non-compliance. If compliance is not based on valid statistical methods, then statistics guarantee that any discharge will on occasion be out of compliance, because of the variations in sampling and analysis.

Also, such procedures may be the only way many municipal dischargers in Alaska can comply with the new National Toxics Rule arsenic standard.

CONCLUSION

The proposed standards incorporate many conceptual improvements, including the revised suspended solids definition, the mixing zones and treatment works, and the possibility of establishing site-specific criteria or natural background conditions in place of the state-wide numeric criteria. Many of these improvements, however, are set out in vague or undefined language, leaving too much to disputed interpretations or to DEC's discretion. This could result in endless study and monitoring, as well as expensive and delaying litigation. We therefore request that you consider our suggestions for tightening up the language to make these new proposals into a workable system of water quality regulation.

Sincerely,

David Stone, President
Council of Alaska Producers

cc: Mr. Joe Fisher, Alaska Gold Co.
Mr. Ralph Hargrave, Cominco Alaska Inc.
Mr. Bruce Bouley, Cominco Alaska Exploration
Mr. Ken Pohle, Fairbanks Gold, Inc.
Mr. Gerald Booth, CIRI Energy & Minerals
Mr. Tom Albanese, Greens Creek Mining Company
Mr. John Lukens, INCO
Mr. Robert Walish, Cambior
Mr. Steve Borell, AMA



ALASKA MINERS ASSOCIATION, INC.

501 West Northern Lights Boulevard, Suite 203, Anchorage, Alaska 99503 fax: (907) 278-7997 telephone: (907) 276-0347

*Rep. Wm.
Williams*

November 13, 1993

Mr. Dave Sturdevant
Department of Environmental Conservation
410 Willoughby Avenue, Suite 105
Juneau, AK 99801-1795

Re: Comments on Proposed State Water Quality Standards

Dear Mr. Sturdevant,

Thank you for the opportunity to comment on these proposed water quality standards. The members of the Alaska Miners Association are personally and directly impacted by changes to the water quality standards. Logical and workable regulations will make the difference between their ability to provide for their families and being forced out of business. We ask that the Department of Environmental Conservation, and each staff member individually, keep this fact in mind when finalizing these regulations. Our members are not third party observers but rather are hard working Alaskans that depend on reasonable regulations to survive.

GENERAL COMMENTS

We feel that many of the changes that have been made to the current draft regulations are beneficial and that these move in the right direction. Of particular importance are the use of the term settleable solids, the selection of 10 to the minus 5th, the addition of a definition for treatment works and addition of the explanatory phrase "unless available evidence reasonably demonstrates" regarding mixing zones. Major improvements have also been made in clarifying the relationship between mixing zones and the waterbody as a whole.

There are however many other areas where the regulations require significant modification. The need now is to correct these areas and change the numerous places in the draft regulations where uncertainty and ambiguity still exist.

A goal should be to remove all possible opportunity for legal challenge by third parties that seek to stop development by harassment of the DEC permitting process. Also, the final regulations should be in terms that will allow understanding by a simple reading so that the requirements are clear for both industry and the DEC. Miners and DEC field staff should not have to consult with DEC management but should be able to follow the clear wording of the regulations without ambiguity or uncertainty.



ALASKA MINERS ASSOCIATION, INC.

2

SPECIFIC COMMENTS

The following specific changes and comments should be incorporated into the final regulations. Items [in brackets] are to be removed and items underlined are to be added to the regulations referenced.

1. 17 AAC 70.010.(d) The final sentence in this paragraph should be changed to read -

"A treatment works must be [as small as practicable] sized to effectively treat the effluent being treated."

The phrase "as small as practicable" is an albatross that will not die! It is subjective and is not definable or measurable and works against effective and efficient treatment with a margin of safety. However, because it has been in use for many years it continues to be used. It appears that pride of authorship within the DEC staff is so great that they are not willing correct this very serious problem.

The real purpose of the regulation and real concern is that a treatment system function properly and that it makes the modifications to the waste stream that are needed to insure that the effluent limits are met. The location where these limits must be met is at the discharge point from a treatment works.

2. 17 AAC 70.010.(e)(3) This sentence should be dropped in total. It only adds uncertainty and confusion to the topic. The real goal, as discussed above, is that the treatment works function properly and that it insures that the effluent limits are met. To require "...using the methods found by the Department to be most effective" can work at cross purposes to the goal.

If for example the "most effective" method of removing a particular constituent is to construct a very large shallow treatment area covering tens of acres, that method could be required rather than a smaller more compact facility. This sentence also assumes that DEC is all knowledgeable. Anyone could challenge the Department in court that some new and better method is "most effective". Leaving the sentence in the regulations is an invitation for future third party suits and the ensuing hassles for industry and DEC.

3. 17 AAC 70.010.(f) This paragraph should be changed to read -
"...to ensure that the quality of the discharge [receiving] water meets the standards..."

The regulations are to control discharges. They cannot control the stream, lake or river in its natural setting - that is a given.

4. 18 AAC 70.020 We support the changes proposed to fecal coliform bacteria.



5. 18 AAC 70.020(b)I and II We support the change from sediment to settleable solids. This change is absolutely essential for many mining operations, other businesses and municipalities, but especially for those in the Interior of Alaska. If this change is not made we will continue in the legal morass of the past several years. Without this change, the sampling and testing costs for all Interior Alaska businesses will be greatly increased by one or more orders of magnitude.

6.A. 18 AAC 70.020(b)I(A)(iii) and (C) for fresh water uses, and (b)II(A)(i) and (C) for marine water uses. Change the second sentence to read -

"Individual substances shall not exceed criteria [, established at the department's discretion,] equivalent to the ...".

If the conditions can be met DEC should not have the discretion to deny a permit! It is time that DEC set the standards in a way that will provide certainty for all permittees, including mining. If the limits can be met the permit should be issued. DEC does not need this discretion. EPA does not require this discretion. It should be removed from the regulations.

6.B. Also in the reference given in the above item: The third sentence reads "There shall be no concentrations of toxic substances in water or in shoreline or bottom sediments that cause.. " This section must be changed to give some specifics or be changed to provide some explanation of what "no" means. As now written it is an invitation for challenge and litigation by those that wish to stop development.

7. 18 AAC 70.020(b), Notes 8 and 9. This material should be returned to the previously requirements. As now written the lab cost per sample will increase from the current cost of \$65 each (Test 418.1) to \$367 each for the three tests listed. This is unreasonable. This requirement will be especially burdensome for the municipalities and there is no demonstratable benefit from the change. Either keep the old method or do the test for benzene only in that it is the component that is the first to be detected (method 602).

8. 18 AAC 70.022. Human Health Criteria. We support this designation of risk level. This risk level is extremely important for all industries, municipalities and the future of all business in the State of Alaska. This section should however be expanded to describe what it means in layman terms with examples comparing this risk level to the other human health and safety criteria that we face in our daily lives. This will assist DEC in communicating this topic which can be easily mis-construed by those wishing to stop development mislead and scare the public.



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4

9. 18 AAC 70.025(a) Site Specific Criteria. The use of the phrase "in its discretion" is absolutely essential in this location. Where the standard requirements are not applicable and the permittee can scientifically justify this fact, the DEC must have the discretion to apply site specific criteria.

10. 18 AAC 70.025(b) This section should be changed to read -
"(b) If the natural conditions of a waterbody before affects of permitted discharges are demonstrated to be of lower water quality criteria..."

We believe that this change clarifies the intent of the section. This addition is necessary to define the point in time that is to be used as a basis of comparison. If this addition is not made the point of comparison could be construed to mean some time before white settlers arrived in the state. Using the addition shown there should be no opportunity for such a mis-interpretation.

11. 18 AAC 70.025(b) The second sentence in this section should be changed to read -
"Upon application, or on its own motion, the department will[, in its discretion,] approve a natural condition as a site-specific water quality criterion."

The phrase "in its discretion" is not appropriate in this location. If the facts and science show that the natural conditions of a waterbody fall in the range that would qualify under this section, then there should be no discretion for DEC. The facts should stand and not be open to discretion.

12. 18 AAC 70.025(b) The third sentence in this section should be either removed in total or at the very minimum changed to read -
"The department will issue public notice of a proposed approval under this subsection, and provide opportunity for a 30 day period for public comment."

13. 18 AAC 70.025(b) In the next to the last sentence of this section the use of the phrase "in its discretion" is appropriate.

14. 18 AAC 70.032(a) The phrase "...unless available evidence reasonably demonstrates..." is very important and adds an extremely crucial qualifier to the statement.

15. 18 AAC 70.032(a)(1)(A) The use of the phrase "...significantly adverse levels;" is very important and also adds an extremely crucial qualifier to the statement.

16. 18 AAC 70.032(a)(1)(B) This item should be changed to read -
"(B) be expected to cause carcinogenic, mutagenic, or teratogenic effects on [biota] commonly used indicator species or human health;"



ALASKA MINERS ASSOCIATION, INC.

5

The use of the single term "biota" without further qualifiers will guarantee legal challenge by those that wish to stop and harass development. One cannot guarantee there will be no effects on biota unless you test all biota. Someone will always be able to find a previously unknown sub-species that has not been tested and DEC will be found not following its regulations. The phrase "commonly used indicator species" removes this line of challenge and accomplishes the need.

17. 18 AAC 70.032(a)(2) This item should be changed to read -
"(2) there could be an adverse impact on anadromous or resident fish or shellfish spawning or rearing as specified in (f)(3)(C) below, or a barrier formed to migratory species;"

This addition is needed to clarify exactly what is considered to be an adverse impact and what criteria is being followed. Without this addition the reader must dig much harder to understand the meaning and will still be uncertain of the meaning, leaving an opening for a third party suit that would attempt to change the meaning into something else.

18. 18 AAC 70.032(b) In the second sentence of this item the term "biota" should be replaced as follows for the same reasons given in paragraph 16. above -
"...that could cause a toxic effect in the water column, sediments, or [biota] commonly used indicator species outside the boundaries of the mixing zone."

19. 18 AAC 70.032(c) The use of the phrase "...the waterbody as a whole..." is extremely important. This will help clarify the misinformation that has been generated by those wishing to confuse and complicate the issue of mixing zones.

20. 18 AAC 70.032(d) The first sentence in this item should be changed to read -
"(d) A mixing zone [must be as small as practicable and] will be granted only after the applicant has provided to the department evidence that reasonably demonstrates that a waste or substance that might exceed the water quality criteria will be treated to remove, reduce, and disperse pollutants, using methods found to be [most] effective and technologically and economically feasible [consistent with the highest statutory and regulatory treatment requirements]."

20.A. Regarding the first change, [must be as small as practicable], this phrase has no definable standard. It is rather an invitation for challenge and must be removed. See paragraph 1. above for additional comment on the need to remove this phrase as we suggest.



ALASKA MINERS ASSOCIATION, INC.

6

20.B. Regarding the removal of the word [most] - if a method is effective it should be allowed. The issue is "effectiveness" not the method. To include the term [most] seems to impose some other standard that is not defined. If this is not removed it will be an item of uncertainty for the industry and an opportunity for challenge.

20.C. Regarding removal of the phrase [consistent with the highest statutory and regulatory treatment requirements] - What is the purpose of this statement? This serves no purpose. We are aware of no "non-highest" requirement against which this statement seeks to be compared. This should be removed as superfluous and potentially confusing.

21. 18 AAC 70.032(e) This paragraph should be rewritten to remove or clarify use of the word "objectionable" and to include an objective standard. There is now no standard. Objectionable to who? You can always find someone who will find any smell objectionable. For example, I sometimes find it objectionable talking to someone that is a smoker because of the odor but that does not give me the right to tell them not to smoke. The same is true when considering color and taste, as well as odor. The USDA Food and Drug Administration has objective criteria that should be considered.

22. 18 AAC 70.032(f) The word "safely" should be dropped from this item or replaced with an objective criteria. This is a subjective term and adds nothing to the meaning of the statement.

23. 18 AAC 70.70.032(f)(3)(A) This item should be changed. There are two alternatives -

Alternative 1.

"(A) the maximum size of a mixing zone may not extend down stream beyond the point of complete mixing, or the location where a public health hazard reasonably could be expected to occur, [whichever point is nearer to the] but it may extend to that location if it is farther from the point of discharge;"

Alternative 2.

"(A) the maximum size of a mixing zone may [not] extend down stream beyond the point of complete mixing, [or] to the location where a public health hazard reasonably could be expected to occur [, whichever point is nearer to the point of discharge];"

To require that the nearer point be used is not reasonable. In some cases this will mean that the discharger will be operating right on the edge of the legal/illegal limit. A better choice is rather than force this situation, when there is not a public health hazard, to allow the mixing zone to extend further downstream. This will be to the benefit of both the miner and the DEC and will have no adverse impact on anyone else.



ALASKA MINERS ASSOCIATION, INC.

7

24. 18 AAC 70.032(g) This item should be changed to read -
"(g) An applicant requesting a mixing zone is responsible for providing to the department all information reasonably necessary for assignment of a mixing zone, including information and demonstrations required in this section and other information reasonably demonstrated to be [determined] necessary [by] for the department to meet the requirements of this section."
25. 18 AAC 70.110(29) We agree with the changes proposed by DEC in this item but feel that further changes are needed so it will read -
"(29) "natural condition" means any physical, chemical, biological, or radiological condition existing in a waterbody before any [human-caused influence on] affects from permitted discharges to, or addition of material to, the water;"

The changes shown above more accurately reflects the intent of the paragraph. In many instances it would be impossible to determine if there were "human-caused influences" because the condition before any humans were present is not known and cannot be determined. This issue is also discussed in item 10 above.

26. 18 AAC 70.110 Definition (1) should be changed to read -
"(1) "adverse levels" means that conditions within a mixing zone are not adequate to ensure survival, growth, and reproduction of [all organisms] commonly used indicator species that might otherwise attempt to reside within the [mixing zone] waterbody as a whole;"

The first change in this definition is needed because it may always be possible to argue that some obscure organism may have been left out of the testing and it may be adversely affected and we will never know unless we wait and study this organism. Reference to commonly used indicator species will correct this problem and is the approach taken elsewhere when this potential difficulty arises.

The second change to this definition is the crux of the entire issue of mixing zones. The purpose of a mixing zone is to define an area where the normal limits can be exceeded even if they may temporarily displace some of the species that may otherwise reside there. Without making the change recommended above, this definition will totally negate the two definitions found in (8) & (12) that follow in this same section.

27. 18 AAC 70.110 Definition (8) should be changed to read -
"(8) "irreparable" means a change in aquatic organism presence due to a decrease in water quality that is irreversible by natural processes so that the ecosystem will not return to a state functionally [identical] equivalent to the original after cessation of discharge;"



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8

The difficulty and cost of proving that something is "identical" is tremendous. Use of the word identical will guarantee a basis for third party suit and will only and uncertainty and confusion to this topic.

CONCLUSIONS

We recognize that DEC has made many important changes to the water quality regulations. Several more changes are needed to clarify the uncertainties and ambiguities that remain and we have described these above.

We recognize that this has been a very difficult and painful process for DEC. It is now our hope that DEC will carry through with this process, make the needed changes and put up with the harassment it is receiving from those that wish to stop development at whatever cost to mining, logging, fish processors, municipalities, etc. Now is the time for DEC to stand up to the pressure and allow nothing to sidetrack the completion of this important work.

Sincerely,

Steven C. Dorell, P.E.
Executive Director

cc: John Sandor, Commissioner DEC
Charles Findley, Director Water Division, EPA
William Williams, State Representative



OFFICIAL BUSINESS

Alaska State Legislature

House of Representatives

REPRESENTATIVE
CYNTHIA TOOHEY
DISTRICT 13

STATE CAPITOL, ROOM 104
JUNEAU, ALASKA 99601-1182
(907) 465-4919

718 WEST 4TH AVENUE, SUITE 330
ANCHORAGE, ALASKA 99501-2133
(907) 258-8195

November 9, 1993

Commissioner John Sandor
Alaska Department of Environmental Conservation
410 Willoughby, Suite 301
Juneau, AK 99801-1795

Re: Proposed Alaska water quality standards' regulations

Dear Commissioner Sandor,

I am writing in support of the above-referenced regulations. The Department has done an outstanding job in developing reasonable standards which protect the water quality in Alaska. The standards are necessary and yet, not so limiting that they would be a disincentive for businesses or industries to operate in the state. I feel that this balanced approach is vital to our state with its resource development financial base.

As I testified last fall, I am very supportive of the Department's using the 1 in 100,000 health risk factor as the basis for the regulations. That standard is sufficient. Any more restrictive standard would upset the balance to which I referred by discouraging businesses to locate or to remain in the state.

It's refreshing to see the Department produce such a practical set of standards. So often, in governmental agencies, the approach is so tilted one way or the other that any practical application of the regulations is next to impossible. Keep up the good work!

Sincerely,

A handwritten signature in black ink that reads "Cynthia Toohey".
Representative Cynthia Toohey

cc. David Sturdevant, Water Quality Manager



City and Borough of Sitka

PUBLIC SERVICES

304 Lake Street • Sitka, Alaska 99835

Phone (907) 747-5500

Fax (907) 747-3158

October 22, 1993

Dept. of Environmental Conservation
WQM
410 Willoughby Avenue, Suite 105
Juneau, AK 99801-1795

ATTEN: Dave Sturdevant

RE: CITY AND BOROUGH OF SITKA (CBS) COMMENTS ON
PROPOSED REVISIONS IN THE ALASKA WATER QUALITY
STANDARDS REGULATIONS, 18AAC70.

Dear Mr. Sturdevant:

In general CBS supports the proposed revisions to the Water Quality Standards Regulations. Following are comments specifically addressing each of the eleven parameters:

Treatment Works

CBS supports the proposed revision.

Fecal Coliform Bacteria

CBS supports the proposed revision.

Sediment/Settleable Solids

CBS supports the proposed revision and applauds the application of a recognized analytical method replacing a vague term.

Toxic Substances

CBS supports the proposed revision. CBS stresses the importance of utilizing accepted species and protocols in performing bioassay testing and is not supportive of the "most sensitive species" wording.

Color

In general CBS supports the proposed revision. However, setting the numeric criteria at "the natural color unit level" may be overly stringent. Color removal can be prohibitively expensive. It seems that standard should allow some predetermined increase in color over the natural level if the natural level already exceeds the numeric standard. Some small increases in natural conditions seems reasonable while not adversely affecting the receiving environment.

Petroleum Hydrocarbons

CBS supports the proposed revision. CBS has not researched the proposed methodologies but is concerned that the proposed aqueous hydrocarbon method is premature due to uncertainties and analytical difficulties. If further study is required to confirm this or find a more appropriate method, CBS urges ADEC to take the time to refine the method for aqueous hydrocarbons and not propose it as a standard at this time.

Human Health Risk

CBS supports the proposed revision of a 10^{-4} risk level. This risk level should adequately protect human health without drastically increasing treatment costs.

Whole Effluent Toxicity

CBS supports the proposed revision. CBS would like to see flexibility, Departmental discretion and/or probability assessment approach in toxicity testing and not a blanket approach. Many times simple systems find themselves spending scarce resources analyzing for something that has a near zero chance of being present. These public resources can be better utilized.

WATER QUALITY REG.S

October 22, 1993

Page 3

Site-specific Criteria

CBS strongly supports site-specific criteria. CBS hopes the requirements for establishing site-specific criteria are not so complicated and costly that site-specific criteria are rarely used. This is analogous to the classification of individual water bodies, where it is the correct social and environmental thing to do but is rarely practiced due to the complexity of the requirements.

Mixing Zones

CBS strongly supports the proposed revision.

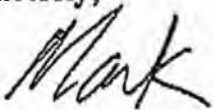
Groundwater

CBS supports the proposed revision and believes that groundwater is more appropriately regulated through separate regulations.

Outside the realm of this revision process is the classification of individual water bodies and the present regulations which protect all unclassified waters to the highest use. CBS would like to see the reclassification process streamlined so that more water bodies could be practically and realistically classified.

In closing, CBS supports the ADEC's efforts to regulate the waters of the State to be maintained as clean as practical for the benefit of all. The balance between how much environmental impact is allowed and how detrimental changes in water quality are, will remain the keystone of these regulations. CBS hopes that economically realistic regulations will be the outcome of this triennial review and revision process.

Sincerely,



Mark Buggins
Environmental Superintendent

c: Dick Smith, Director of Public Works
Gary Paxton, Administrator

RICHARD H. SMITH, PE
CONSULTING CIVIL/SANITARY ENGINEER

4775 Halibut Point Road
Sitka, Alaska 99835

Home: 747-6333

October 29, 1993

Dave Sturdevant
Water Quality Standards Coordinator
Water Quality Management
Alaska Department of Environmental Conservation
410 Willoughby Ave.
Juneau, AK 99810-1795

RE: WATER QUALITY STANDARDS

Dear Dave:

I had not intended to "personally" comment regarding the new regulations, however, the recent press extravaganza and the "overwhelming public outcry" against the modifications deserves comment.

Suffice to say that I endorse the positions of all the agencies and professional organizations in the field of Water Quality assurance -- i.e. the Alaska Water Management Association, the City and Borough of Sitka, the Municipality of Anchorage, and so on.

Although a charged-up public has an important and necessary voice, I am sure that just as strong a voice could have been presented by the engineering/scientific side had it been a mere who can jeer or cheer the loudest contest. It is incumbent on you Dave to make sure that the legislative body recognize the facts and listens to arguments which have not been emotionally contrived. As an example, during last Monday's teleconference you were asked about possible cumulative (or synergistic) effects of non-specified compounds. Not all combinations of compounds are considered bad. I would ask as to how much research has been conducted on the effects of combining sodium thiosulfate and chlorine or on combining chlorine and ammonia.

Sincerely,



Richard Smith, P.E.

Mark Buggins
PO Box 2684
Sitka, AK 99835

November 10, 1993

Dave Sturdevant
Water Quality Management
Alaska Department of Environmental Conservation
410 Willoughby Ave., Suite 105
Juneau, AK 99801

RE: Revisions to Water Quality Standard Regulations

Dear Dave:

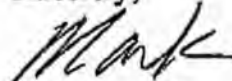
The recent media attention has compelled me to write personal comments on what I consider to be reasonable revisions to the Water Quality Regulations.

I fear this is another case of the vocal minority emotionalizing an environmental issue. I have followed the revision process and public testimony for the last several years. In that time I have heard testimony from individuals claiming their children eat 500 pounds of fish per year (must be big kids) and that the human health risk should be much more conservative than 10^{-5} or 10^{-6} . I wonder, how did those people get to the site to give testimony? I agree completely with the comments of Ernesta Ballard on the use *or misuse* of risk assessment in regulations. This concept puts an agency in a defensive public relations position right from the beginning.

I hope you will convey to the Legislature that what they are receiving through the media and the publicity stunts are not the desires of the entire public and many times are unreasonable. It is my judgement that the proposed revisions are economically realistic while adequately protecting aquatic and human health and the receiving waters from degradation.

I support ADEC's revisions to these regulations as reasonable protection of our State's receiving waters. Also, I urge the agency to streamline the reclassification process so that more water bodies can be practically and realistically classified. As water quality criteria are more closely controlled the reclassification process will become increasingly important.

Sincerely,



Mark Buggins
Environmental Engineer



City and Borough of Sitka

PUBLIC SERVICES

304 Lake Street • Sitka, Alaska 99835

Phone (907) 747-5500

Fax (907) 747-3158

August 31, 1992

John A. Sandor, Commissioner
Alaska Department of Environmental Conservation
410 Willoughby Avenue, Suite 105
Juneau, AK 99801-1795

Dear Mr. Sandor:

The City & Borough of Sitka supports the ADEC regulations whereby the waters of the State of Alaska are maintained as clean and as practical for the benefit of everyone. The recent hearings on specific water quality parameters brought out a number of salient issues to review. The questions of how much environmental impact is enough or how much impact will be detrimental has been and always will be the key to proper regulation.

While some of the water quality standards under current review have effects on our municipal system, the major impact is on private industry. Our unbiased position is that ADEC weigh all the costs of adopting more stringent or less stringent standards. Health and Life Safety should not be compromised below accepted worldwide standards and the importance of economic impacts must always be considered.

Sitka has two major industries which are effected by any revisions to water quality standards ----- The APC Mill and the Seafood processors. Over half of Sitka's economic base is related to these industries. These companies have accepted practical and achievable pollution prevention goals and have cooperated with ADEC and the EPA by constructing necessary facilities to achieve compliance. Please consider economically achievable compliance regulations as you re-write the regulations.

Sincerely,

Gary L. Paxton
Administrator

GP/rr



City and Borough of Sitka

PUBLIC SERVICES

304 Lake Street • Sitka, Alaska 99835

Phone (907) 747-5500

Fax (907) 747-3158

September 29, 1992

Alaska Department of
Environmental Conservation
Water Quality Management
410 Wiloughby Avenue
Juneau, AK 99801

ATTN: Katy Wilkinson

RE: WATER QUALITY STANDARDS

Dear Katy:

The following are additional comments on the proposed revisions to the Water Quality Standards:

Natural Water Quality

The City and Borough of Sitka (CBS) supports altering water quality criteria based on natural background levels.

Color

CBS supports the proposed change to the standard for fresh water supply from 5 to 15 color units and the additional narrative which would prohibit the discharge from making a marine receiving water "unfit or unsafe for use."

Mixing Zone

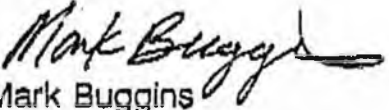
In general CBS supports the proposed change but, as with all regulations, believes costs of treatment required should be considered. Additionally, CBS questions the absolute prohibition of mixing zones in specific areas.

September 29, 1992
WATER QUALITY STANDARDS
Page 2

Human Health

CBS supports the addition of criteria for arsenic, dioxin and chloroform as proposed.

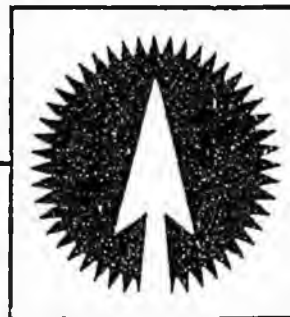
Sincerely,


Mark Buggins
Wastewater Superintendent

MB:cj

Attachments

c: Dick Smith



TESTIMONY OF TROY REINHART
EXECUTIVE DIRECTOR, ALASKA FOREST ASSOCIATION
BEFORE THE HOUSE RESOURCES COMMITTEE
ON PROPOSED WATER QUALITY REGULATIONS
OCTOBER 25, 1993

Thank you for the opportunity to express the position of AFA concerning the Proposed State Water Quality Standard Regulations. I am Troy Reinhart, executive director of the Alaska Forest Association. AFA is an association of over 300 companies which depend on the forest products industry in Alaska. AFA represents thousands of families and jobs throughout Alaska.

AFA has been directly involved in the process of developing these regulations. AFA and many of its members are on record as to their position regarding this proposal. They remain committed to their earlier comments, which we feel should remain part of the public record. AFA supports the current proposed regulations as the maximum level of restriction needed to protect the water resources of this region. The DEC proposal is the safest, most cost effective plan for protecting humans, the environment and the economy of Alaska.

Human Health Risk Level: AFA is in total support of the State's choice of 10^{-5} (1 in 100,000) as a human health risk level. This level of risk is acceptable for meeting water quality standards, especially when it assumes every Alaskan would have to drink two liters of contaminated water every day and eat five pounds of contaminated fish every year for 70 years. In reality it is highly unlikely that anyone in Alaska would be exposed to this level of risk.

It must be understood that the proposed level of 1 in 100,000 risk of developing cancer due to exposure to polluted water is very very small compared to the risk of dying from cancer which is 1 in 4 with 90% of those deaths caused by smoking. Also this standard is 1000 times less than the current risk from background exposure to all other environmental contaminants, including ones that occur naturally in foods.

For those concerned about family, friends or themselves being diagnosed with cancer I share that concern. My mother died six years ago after battling two separate occurrences of

cancer. While I would not wish what my family or my mother suffered on anyone, raising the level from 10^{-5} to 10^{-6} is not the answer. The energy resources and cost is better spent fighting the real causes of cancer which include smoking and a sedentary life style. A risk of 1 in 100,000 is very small when compared to the chances of 80% of all life on the planet being eliminated by a comet/asteroid smashing into the earth. The odds of that happening as reported by Economist magazine is 1 in 30,000.

An increase to risk levels of 1 in 1,000,000 would cost millions of extra dollars with virtually no gain. A level of 1 in 100,000 is more reasonable and an acceptable health risk.

MIXING ZONES: AFA supports the concept and practice of mixing zones which allow for the natural assimilative capacity of the surrounding water to efficiently dilute a waste-water discharge to levels below any that could be harmful. In some cases it is very probable waste water being discharged could be cleaner than that into which it is being released. AFA supports the continued use of mixing zones in both fresh and marine waters.

TREATMENT WORKS: AFA supports and wishes to emphasize the importance of the proposed "treatment works" definition. We urge and support the continued exemption of discharges into treatment works from having to meet water quality standards. It is not realistic to expect water quality standards to be met inside properly authorized treatment facilities such as sediment settling ponds.

NATURAL BACKGROUND LEVELS: Nature can create situations where the existing concentrations of a substance are higher in the receiving water than the concentration in the proposed discharge. For this reason, AFA supports the consideration of natural background levels through the development of site specific water quality criteria. It is only logical the discharge being released can be equal to the natural level without increasing the concentration of the substance overall. In fact, some site concentrations exceeding the natural background level may be discharged while still fully protecting all uses of the water.

Thank you for this opportunity to present comments before the Committee. We trust DEC will take the prudent course and adopt the proposed rules in their present form.



MAPCO ALASKA PETROLEUM INC.

November 11, 1993

Dave Sturdevant
Water Quality Management Section
410 Wiloughby Avenue, Suite 105
Juneau, AK 99801

Chair of House Resources
Representative Bill Williams
352 Front St.
Ketchikan, AK 99901

Dear Mr. Sturdevant and Chairman Williams:

Actions being taken and proposed by DEC on State Water Quality Standards are acceptable.

I care very much about clean air and water, but expect the scientific community to provide rational guidelines that will balance the environmental concerns, human health and economic factors without needlessly sacrificing local jobs.

Please adopt standards that will allow us to live, work and play in this state safely. Please do not take the position of the radical few who do not care who or what businesses will be displaced.

I support the DEC proposal and request no further extreme criteria be used.

Sincerely,

A. L. Buki Wright, Jr.
Vice President
MAPCO ALASKA PETROLEUM Inc.
Past Chair
Alaska State Chamber of Commerce

:jw

fax: 465-5070 / 225-8546

PETRO STAR INC.

Telephone: (907) 344-2661
 Fax: (907) 267-6429

201 Arctic Slope Avenue Suite 20C
 Anchorage, Alaska 99518-3030

November 15, 1993

WALT SCHLOTFELDT
 President / C.O.O.

David Sturdevant
 Water Quality Management Section
 410 Willoughby Avenue, Suite 105
 Juneau, AK 99801

By Facsimile

The Hon. Bill Williams
 Chair of House Resources Committee
 352 Front St.
 Ketchikan, AK 99901

Re: Proposed Water Quality Standards

Petro Star Inc. would like to express its support of the Department of Environmental Conservation's proposed State water quality standards.

Petro Star and its people believe that the Department's proposed standards vindicate Alaskans' deep concerns about water quality. At the same time, the Department properly has rejected the efforts of a few who would attempt to use the water quality standards as a means to burden Alaska business and industry. As the public review documents confirm, the Department made its proposals after careful consideration of the relevant factors in the context of Alaska. This kind of scientific and realistic approach is essential to insure the safeguarding of environmental values and at the same time to avoid unnecessary interference with Alaskans' economic activities.

Petro Star supports the DEC proposals and requests that more extreme water quality standards criteria be rejected.

Thank you for your consideration.

Sincerely,



Walt Schlotfeldt
 President and COO
 Petro Star Inc.

| | | | |
|--|---------------|--------------|----------------|
| Post-It™ brand fax transmittal memo 7671 | | # of pages > | 1 |
| To | BILL WILLIAMS | From | PETRO STAR INC |
| Co. | | Co. | |
| Dept. | | Phone # | |
| Fax # | 225-8546 | Fax # | |

Jerry Chapman, NCAC I
4400 Abby Way
P.O. Box 22146
Juneau, AK 99802-2146

*Primarily
individual
comments*

October 27, 1993

Department of Environmental Conservation
State of Alaska

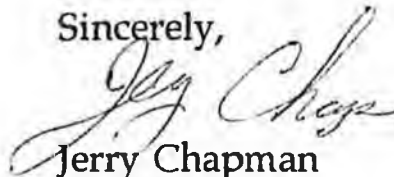
PUBLIC COMMENT ON PROPOSED WATER QUALITY CHANGES

Thank you for extending the period of public comment on water quality standards. I have been unable to participate in the forums and am taking this opportunity to inform you of my opposition to the changes in the standards that is being proposed.

There is no doubt that the standard change will increase the already high prevalence of cancer and other environmentally caused health hazards that plague our state. I experienced a personal tragedy three years ago when my baby was born with a severe birth defect that may have had environmental origins. She died at birth, as did another baby born the same week in Juneau with the same, normally rare, birth defect. This birth defect, anacephaly, has been seen in clusters around the nation in relationship to environmental toxicity. My family and I represent the human experience of one of the statistical sacrifices which is being considered.

By now you have heard a resounding majority of public comments demanding that the State continue to honor our right to the most conservative level of water pollution possible in our waterways. I am adding my voice to this outcry. Please consider the human moral issues being discussed here, and refuse to contribute to increasing the problem of toxic waste in our environment that is slowly eroding our health and that of our children.

Sincerely,



Jerry Chapman
907-780-6299

THE
FOLLOWING
DOCUMENTS
ARE
POOR
ORIGINAL
COPIES

October 30, 1993

House Resources Committee
P.O. Box V
State Capitol
Juneau, Alaska 99811

Dear Whom It May Concern,

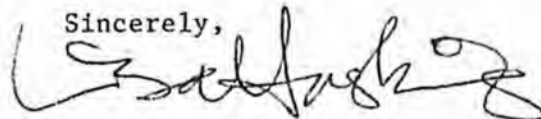
I have read with interest the proposed changes to the water quality standards of Alaska. It seems as though now would be the perfect time to set a higher standard than that which is favored by the governor, since after all, when he's gone from office, we the people of this state will still be around, relying on the highest water quality standards available. It is in the state's best interests to keep the standard high. The very idea of lowering them is unconscionable.

Look at the historical importance of water to Alaskans, native and transplant alike. We have obviously taken for granted that pure water is a priveledge, and not a right, as this new development is making clear to me. From the bottom of the ecosystem to the top, clean water is necessary, imperative, to our survival on this planet, in this state, in this community. It really burns me to a crisp to think that an issue of this importance is so casually decided for us in the halls of government. It's unethical to not allow the citizens to help decide what is in the best interest for all when it comes to the future of Alaska's resources.

If this is an issue of government backbending for corporate's sake, the maybe you should ask yourselves if in the long run, considering the role that pure water plays in the lives of the people of this land, is it really worth lowering water quality standards for short term gain? The mines will come and go, big industry have already proven to be polluters of the land in many ways, and yet you still are able to justify lowering water quality standards as if those are the kinds of activities that in the long run will have a lasting benefit for the people of this community, this entire state?

Please think fish, think tourism, think of all the reasons to make the water quality standards for Alaska the HIGHEST available. Think life, think people, think about the future.

Sincerely,



Lisa M. Haskins

324 2nd St. #9

Juneau, AK 99801

Susan Chapman M.A., NCAC II
4400 Abby Way
P.O. Box 22146
Juneau, AK 99802-2146

October 27, 1993

Department of Environmental Conservation
State of Alaska

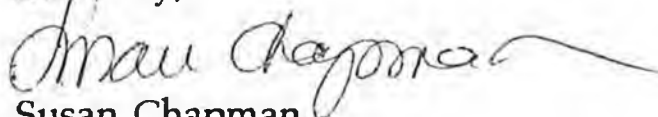
PUBLIC COMMENT ON PROPOSED WATER QUALITY CHANGES

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There is no doubt that the standard change will increase the already high prevalence of cancer and other environmentally caused health hazards that plague our state. I experienced a personal tragedy three years ago when my baby was born with a severe birth defect that may have had environmental origins. She died at birth, as did another baby born the same week in Juneau with the same, normally rare, birth defect. This birth defect, anacephaly, has been seen in clusters around the nation in relationship to environmental toxicity. My family and I represent the human experience of one of the statistical sacrifices which is being considered.

By now you have heard a resounding majority of public comments demanding that the State continue to honor our right to the most conservative level of water pollution possible in our waterways. I am adding my voice to this outcry. Please consider the human moral issues being discussed here, and refuse to contribute to increasing the problem of toxic waste in our environment that is slowly eroding our health and that of our children.

Sincerely,


Susan Chapman

907-586-6150

Date 28 Oct 93

Dr. Wayne A. Jenkins
P.O. Box 2608
Sitka, Alaska 99835

Mr Dave Stunderant, D.E.C.

I have not testified in Public Hearings for the following reasons. A very small but vocal group has monopolized and intimidated those individuals who won't go along with their demands to close down our industries and development of natural resources. They are the very group that chain themselves to plants (AFIC) bridges, public buildings etc to disrupt and damage private and public property for their unscientific vein. Their concerns are emotional and not based on fact. Their risk of injury or to health is greater than me in 100,000 just by getting out of bed in the morning.

Attn:

Mr Bill Williams,

Please retain the one in 100,000 risk factor. To raise it will destroy our states economic base without measurable improvement in our health.

Sincerely
Wayne Jenkins

Date Cont

Dr. Wayne A. Jenkins
P.O. Box 2608
Sitka, Alaska 99835

With the writing of New Water Quality Standards please remove statements that are unclear, ambiguous, and uncertain. As they will open the flood gate for Injunctions and frivolous law suits. This fanatical group has already stopped or cost the tax payer thousands of dollars with their actions. The mixing zone should be monitored by use of common organisms that are in the food chain. These people forget that with our large tides and ocean currents these zones are flushed four times a day.

Our oil royalty payments are decreasing and the state and federal economy is not improving. Our local, State, and federal fees and taxes are rising.

Date Cont

Dr. Wayne A. Jenkins
P.O. Box 2608
Sitka, Alaska 99835

If the risk rate is raised from one in 100,000, which is a realistic and obtainable standard, it will close all industry in Alaska. It will close fishing, fish processing, timber, and mining! This will only leave tourism which is seasonal and short.

Sincerely
Wayne A. Jenkins

TO: HOUSE RESOURCE COMMITTEE,

Enclosed is a letter urging the D.E.C to uphold the Water Quality Standards. There has been a good deal of outcry around Southeast Alaska for the state not to lower the standards. IF the present administration will not listen to the people and do what is right, then it is your duty to legislate proper standards. Thank you for considering this issue, as I believe Clean Water is Alaska's #1 Resource.

Sincerely,
Ken Bane

FROM: Ken BARE
P.O. Box 6209
Sitka Alaska
99835

To: Alaska Department of Environmental Conservation
DAVE STURDEVANT,

I URGE YOU NOT TO LOWER ALASKA'S WATER QUALITY STANDARDS. CLEAN WATER IS ALASKA'S MOST IMPORTANT RESOURCE, WE SHOULD HAVE THE HIGHEST STANDARDS NOT THE LOWEST.

By lowering standards or even keeping them status quo, or allowing dirty industries to operate out of compliance, or with insufficient regulations, you are making the state, all of us, responsible for future repercussions. We cannot afford this. It seems that DEC is more concerned for the profitability of business, than the effects on the environment and the people of Alaska. If you consider the long term effects, short term profits for big business by polluting is a very bad investment for the state.

I live 4 1/2 miles from the APC mill in Sitka AK. The mill has been closed about a month. The water is now clear enough to see the bottom in >10' of water. When the mill operates you can't see 2'. This is obvious but I'm concerned about the unobvious. I feel it is your department's duty to protect me, the people of Alaska, not the mill. You should have to do a study immediately, it should have been done years ago on a continuous basis, on the safety of the fish and water adjacent to the mill.

We need to know how far from this mill is it safe to eat which fish and shellfish. People need to be protected and you're not doing it now. How can you consider lowering the existing regulations when there are important unanswered questions?? Many people of Sitka eat mostly seafood gathered and caught from local waters. Now the water looks good people may harvest from unsafe areas - we don't know. If you were to do an honest study and found unsafe fish or shellfish, or seaweed, even in a small area, what are the possible effects on the people here and the markets for our seafood? What is the real cost of this one case? I don't think you're dept. or the state is looking at the whole picture.

I urge you to:

1) Adopt the most protective Cancer Risk level possible - not the least 10^{-5}

There should be no Cancer Risk at All.

I eat close to 5# seafood a week not per year.

2) Keep Alaska's Existing law that prohibits mixing zones for Carcinogens, and enforce it,

3) Keep and improve Existing Standards for Hydrocarbons, Color, total suspended solids.

4) "Treatment works" should not be exempt from Alaska Water Quality Standards

5) "NATURAL Conditions" must not be used to Avoid State Water Quality Standards.

Sincerely
Ken Bone

Oct 20 '93

①

In regard to the proposed Water Quality Standards in Alaska I have attended ADEC hearings last year and this year. Your ^{ADEC} summary to the House Resource Committee indicated you listened but I fail to see an adequate response as reflected in your continuing policy of "flexibility". My economic viability as a fisher business owner operator is not flexible. I should not have to bear the burden of another's industrial toxins. I am responsible for my own as they should be. To spare you the tedious business of reading an even longer letter please check one for each point of all the United Fishermen of Alaska points when you sum up and categorize these letters to pass on to the EPA.

(2)

You don't even have a handle on the monitoring or enforcement of existing laws. How can you propose mixing zones and declare them safe when you haven't tested the waters in Sitka beyond the mixing zone since 1990. These waters were visibly filthy enough to warrant a closure to cleaning the fish by ADEC staff and we were told that sportsmen in the area know better than to clean their fish in the contaminated water. If the mill is out of compliance in regards to contamination of the water they should be shut down, not my business, I didn't dump the toxin.

I eat upwards of 150 lbs of fish a year so I fall off the chart when your slinging your numbers around. How can you

assume pounds of fish clean or contaminated when you haven't tested those fish

Of your policy is an economic justification your math is secured, how can you propose

economic viability when the EPA has spent 12 billion in studies alone of toxics deposited?

the burden being placed on taxpayers and land owners not the industry that caused it.

I understand log rats are sprayed with pesticides. Did you know the pesticide seen

(Alexei Yablakov in earth in balance) in a billionths concentration causes unrecorded movement in large

scales of fish. Something as simple and minute as that can lead a chain of events to a

collapse of a fishery, movement being an intrinsic condition of well being in a fish. I don't

④ Think you are even monitoring for this or even if sevin isn't being used what about the miracle of compounds and combinations too numerous to study. If all this boils down to a "perceived" problem (though the problems in the lower 48 are not perceived but very much real and the closure of the water to my business conduction was not a rumor or imaginary). How would you attempt to address the perception of outsiders if you can't even get it straight with those of us who are involved and seeking information.

Perception or misperception alone can detrimentally impact the fish industry. The lawyers are happy in court they get paid to discuss your "flexible" language and "flexible" responsibilities for damage

⑤ done (exons not over let)

(Unless you provide incentives to industries to be clean they won't bother, while they take the profits we pay the price.)

A higher standard of water quality has been backed by sound science done in

1989 by ADEC staff. Take your own advice by your own staff.

Cheryl Pritchard

Box 6209

Sitka AK 99835



LEGISLATIVE AFFAIRS AGENCY

DIVISION OF PUBLIC SERVICES

DATE: 10/25/93

Please accept the enclosed original(s) of written testimony for the House Resources teleconference hearing that was scheduled on Oct. 25, 1993.

A copy of this testimony was transmitted to your committee via fax on 10/25/93.

Thank you,

LEGISLATIVE AFFAIRS AGENCY
Sitka Legislative Office
210 Lake Street
Sitka, Alaska 99835
747-6276

Please note:

Several participants expressed the desire for a follow-up teleconference on water quality and requested that we convey this interest to the committee.