



January 19, 2015

Paula Wilson
IDEQ State Office
Attorney General's Office
1410 N. Hilton
Boise, ID 83706

Clearwater Paper Corporation
601 West Riverside, Suite 1100
Spokane, WA 99201

**RE: Docket No. 58-0102-1201 - Negotiated Rulemaking
Choosing Appropriate Risk Levels for Idaho**

Dear Ms. Wilson:

Clearwater Paper is pleased to offer this comment letter on the subject rulemaking. We appreciate the Idaho Department of Environmental Quality's (IDEQ) work on this very important matter and look forward to our continued participation in this rulemaking process.

Clearwater Paper believes IDEQ's December 3, 2014 presentation provided an excellent overview of the risk policy decisions that must be made when selecting an allowable risk level as the department contemplates revising the methodology to assess the risk to Idahoans from eating fish and the associated human health water quality criteria (HHWQC). This work will represent the evaluation and selection of complicated science and public policy choices and we look forward to continuing to supporting IDEQ in this process of revising the HHWQC.

As IDEQ begins the last year of this very important rule making, Clearwater Paper believes it's imperative that the department make balanced policy choices relative to setting and managing against risk benchmarks. We urge the department to use the best available science and calculation tools to assess potential risks to Idahoans and then establish allowable risk levels that are reasonable, achievable and balanced from a resource and public health standpoint.

Clearwater Paper supported the development of detailed comments on this important subject by ARCADIS, a national leader in risk assessment. Their comments will be submitted under a separate cover by IACI.

We are offering some specific comments in the following key areas – areas where IDEQ has extremely important choices to make in this rulemaking.

The department should use the best available science and calculation tools to evaluate risk to all Idahoans.

Progress and adaptation is what largely defines a successful and enduring culture. It is not an overstatement to point out that Idaho has an exciting and historical opportunity to use emerging science and technical tools to set the state's water human health water quality criteria (HHWQC) and advance the state of the art associated with the setting of public risk policy.

Rather than adopting a “one size fit’s all” deterministic approach to setting risk, Idaho has the available tools to evaluate the risk to all Idahoans – from those who eat very little fish to those who routinely eat larger quantities of fish every day. With this important information, the state can easily assess the risk to those Idahoans with the highest exposures and those Idahoans with average exposures.

Clearwater Paper strongly urges IDEQ to utilize a probabilistic risk assessment (PRA) approach in setting HHWQC for Idaho. PRA represents the best available science in evaluating risk and is clearly endorsed by EPA (headquarters) and truly represents an opportunity for Idaho to advance science and public health policy.

Individuals have different risk profiles and it is impossible to set policy that provides equal risk across a population.

The public policy choices required by the subject rule making will be based on how much untreated surface water individuals drink and how much fish they eat. These consumption patterns are individual and no two individuals consume exactly the same amount of water or fish. It’s a physical impossibility to establish a public policy that results in a constant risk to all members of the public. This physical reality reinforces the need to make an informed assessment about high-end consumers juxtaposed to average consumers. EPA has historically recognized this fact by establishing a range of protection for carcinogens represented as a range of excess lifetime cancer risk (ELCR) from one in a million (1×10^{-6}) to one in ten thousand (1×10^{-4}).

To set all the inputs of a risk calculation at conservative levels compounds the conservative nature of the result and establishes an overly conservative public policy choice. If resources were limitless, this would not be a problem. But in a society with limited resources, considerable care must be used to balance public health with both public and private resources. Given the myriad of public health problems in Idaho, deploying public and private resources in an optimal manner and in a way that drives measurable results is a public service imperative.

Oregon’s adoption of 175 g/day for a fish consumption rate and an ELCR of 1×10^{-6} is an outcome resulting from a serious lack of understanding of risk to the general public and the practical effect of adopting unachievable HHWQC for many chemicals. For the average Oregonian, the carcinogenic risk from PCB’s under this rule is about 1 in 15 million – about 300 times less likely than getting hit by lightning in a lifetime ^(1,6). Oregon made a drastically misinformed public policy choice and will be working out from under this extremely poor choice for years if not decades.

Setting a risk benchmark of 1×10^{-5} for excess life time cancer is much more conservative than the risks associated with many foods we eat and risks associated with our daily activities.

As IDEQ pointed out in their December 3, 2014 presentation the average U.S. male has a 44% chance of developing cancer in their lifetime. The mechanisms of cancer development are not generally well understood except for some specific carcinogens (asbestos, arsenic, benzene, etc.). From a programmatic viewpoint and as an example if Idaho set a ELCR benchmark of 1×10^{-5} and then lowered

an existing risk of a carcinogen from 1.5×10^{-5} (50% above the benchmark) to 1×10^{-5} (complying with the benchmark) would have the following effect on the risk of an average male in Idaho developing cancer:

<i>Background Cancer Risk prior to New Benchmark:</i>	44.000%
<i>Risk lowered for a specific carcinogen:</i>	43.995%

This same type of example but using a general population bench mark of 1×10^{-6} ELCR would yield this result:

<i>Background Cancer Risk prior to New Benchmark:</i>	44.0000%
<i>Risk lowered for a specific carcinogen:</i>	43.9995%

These calculations assume a lifetime of exposure from eating fish from Idaho waters and drinking untreated surface water. In summary in this example, the possible policy choice between 1×10^{-5} and 1×10^{-6} ELCR would represent the following increased cancer risk to Idahoans for this same example

<i>Choosing an ELCR of 1×10^{-6} over 1×10^{-5}</i>	<i>Decrease risk 0.0009% over a lifetime</i>
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Compare these risk levels with food we eat and risk associated with daily activities – including some risks that are regulated by state and federal regulatory programs:

<i>Acrylamide in food (naturally formed)</i>	<i>Increased ELCR</i>	<i>0.1% over lifetime ⁽²⁾</i>
<i>Working in a smoke filled casino</i>	<i>Increased ELCR</i>	<i>0.4% over lifetime ⁽³⁾</i>
<i>Working around benzene</i>	<i>Increased ELCR</i>	<i>1.0% over lifetime ⁽⁴⁾</i>
<i>Working around formaldehyde</i>	<i>Increased ELCR</i>	<i>0.3% over lifetime ⁽⁴⁾</i>
<i>Drinking water EPA MCL vinyl chloride</i>	<i>Increased ELCR</i>	<i>0.01% over lifetime ⁽⁵⁾</i>
<i>Car accident</i>	<i>Risk of death</i>	<i>1.2% over lifetime ⁽⁶⁾</i>
<i>Dying in a Fall</i>	<i>Risk of death</i>	<i>0.5% over lifetime ⁽⁶⁾</i>
<i>Mean Oregonian from PCB's</i>	<i>Risk of death</i>	<i>0.000007% ⁽¹⁾</i>

Of these statistics, the most remarkable comparison is between what EPA deems as acceptable for vinyl chloride in drinking water and what EPA is promoting as a conservative ELCR of 1×10^{-6} – the drinking from EPA drinking water stand is **100 times** less conservative than the proposed risk associated with eating high levels of fish. EPA's rationale for this policy deviation and disconnect is unclear and illogical.

The choice of 1×10^{-5} for an ELCR benchmark for the average person in Idaho is protective, consistent with precedents provided by other regulatory programs and is much smaller than risks from our everyday lives that most people readily accept and give little thought to.

Setting a risk benchmark of 1×10^{-4} for excess lifetime cancer risk to highly exposed populations is consistent with EPA policy and conservative relative to other established regulatory programs.

EPA recommendation of an ELCR of 1×10^{-4} for highly exposed populations is clear in historical guidance documents and the practice by many other jurisdictions ⁽⁷⁾.

Idaho using an ELCR of 1×10^{-5} for a mean population is very conservative from a human health exposure standpoint and represents a measured and reasonable policy choice. Idaho establishing an ELCR of 1×10^{-4} for highly exposed subpopulations is also conservative compared to other regulatory programs and a reasonable policy choice.

The most accurate method of assessing risk to Idahoans from eating Idaho fish and drinking surface water would be using the DEQ's fish consumption survey combined with a probabilistic risk assessment approach.

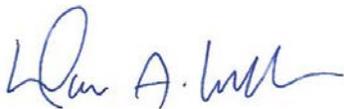
As noted above and in Clearwater Paper's comment letter dated April 18, 2014, probabilistic risk assessment is the best available scientific tool to assess risk to an exposed population and make informed public policy choices. Using PRA with the forthcoming results of the IDEQ fish consumption survey will yield the most accurate estimate of risk to all Idahoans and allow for the best informed policy choices. Inherent in this analysis will be an estimate of the risk to high fish consumers as well as those who eat very little fish. A specific risk level for the average Idahoan and a different choice for those exposed at higher levels will yield a specific HHWQC that meets these policy choices.

In summary, Clearwater Paper urges IDEQ to use PRA combined with new information on Idaho specific fish consumption rates to update Idaho HHWQC. PRA is the best available science, assesses the risks of all Idahoans, is easily conducted using the software tool provided separately to IDEQ or using other available software, avoids an excessive compounding of conservatism and makes transparent the basis of the science and public policy choices used to establish HHWQC.

On behalf of Clearwater Paper, we appreciate the opportunity to provide comments on this important matter and look forward to participating with IDEQ as this rulemaking goes forward.

Please contact me at 509-344-5956 or marv.lewallen@clearwaterpaper.com with questions.

Sincerely yours,



Marv Lewallen
Vice President – Environmental, Energy & Sustainability

Attachment - References

REFERENCES

- 1) Assessment performed using ARCADIS PRA tool with Oregon PCB HHWQC and a realistic FCR distribution
- 2) *Risk Assessment of Acrylamide in Foods*, E. Dybing & T. Sanner, 2003
- 3) *Exposure to secondhand smoke and excess lung cancer mortality risk among workers in the “5 B’s”: bars, bowling alleys, billiard halls, betting establishments, and bingo parlours*, M Siegel and M Skeer, 2003
- 4) *There is No “War” on Occupational Cancer*, Adam M. Finkel, et. al., 2008
- 5) ARCADIS White Paper submittal Table 5 – SDA MCL’s
- 6) *How Scared Should We Be?*, New York Times, Tara Parker-Hope, 2007
- 7) *A Survey of Residual Cancer Risks Permitted by Health, Safety and Environmental Policy*, March Sadowitz & John D. Graham,