

DRAFT RESPONSIVENESS SUMMARY
FOR PROPOSED RULEMAKING

SWAPCA 491 – Emission Standards and Controls for Sources Emitting Gasoline Vapors

A. Len Dozier, Citizen (Draft Comments May 3, 2000)

Comment No. 1: SWAPCA's Attachment 1 says, "fuel costs could increase by 1 to 2 cents per gallon for product transported east of the Cascades." A very rough estimate of the affected volume would be 150,000,000 gallons/year, assuming about the same volume as used by Clark County. Thus the annual cost would be \$1,500,000 to \$3,000,000. I am guessing that the gasoline users east of the Cascades who will bear this cost do not even know about this hearing. My point is that the impact of this regulation is big enough to merit careful study by the Board itself and the issue is not so pressing that additional study time can not be allowed if necessary.

Response: SWAPCA staff does not agree with this comment that there is adequate time for additional study. The Ozone Maintenance Plan approved in April 1997 by the U. S. Environmental Protection Agency assumed in its calculations that the emissions from gasoline barge loading would be significantly reduced by summer 1999 because of construction of the Cross-Cascades Pipeline and thus, significantly reduce gasoline barge loading activities. This pipeline project has now been cancelled and there is an immediate need to get the emissions within our Vancouver/Portland ozone air shed back in line with the 1996 Ozone emission forecasts. The timeline for the proposed rule to achieve these emission reductions by June 2001 already means that the summer of 2000 is beyond our ability to get these emission reductions in place. Further, our interstate ozone air shed is poised to again exceed the ozone air quality health standard if our region has even one exceedance of the health standard in the upcoming summer of 2000.

It also needs to be recognized that all sources in the state of Washington are required to implement control strategies consistent with technology based controls identified as Reasonably Available Control Technology (RACT), pursuant to RCW 70.94.154. The existence of the gasoline barge loading rule which is now in effect in Portland, Oregon is one of the issues that SWAPCA is to consider in establishing RACT for its sources and/or source categories. Further, considerable time and effort have been spent to develop a detailed analysis of the costs and impacts of this rule making in our Portland/Vancouver region. Without providing all the details in this response, gasoline barge loading is one of the lowest cost options considered for meeting the Ozone Maintenance Plan emission reduction shortfall caused by the cancellation of the Cross-Cascades Pipeline. The cost for implementing this rule varies by individual source. The average cost to implement this rule in the Vancouver/Portland area is about \$1900 per ton in

today's dollars. In 1979 the U.S. Environmental Protection Agency suggested \$2000 per ton as the cost of RACT for marine terminal loading. Adjusted for inflation, the cost to meet this RACT standard for barge loading in today's dollars would be about \$4500 per ton. As identified in the rule making background, the gasoline barge loading source category is now the largest uncontrolled industrial source of volatile organic compound emissions in the Vancouver/Portland area. Finally, implementation of this proposed rule has the additional health benefit of reducing toxic and hazardous air pollution emissions from this source category, which have other immediate health benefits.

Comment No. 2: Alternatives - Attachment 1 recommends adoption with no listed alternative. I believe that there is an alternative that will provide just as much protection against future ozone exceedances as the proposed regulation. It is simply to change the current voluntary ban on barge loading between 2 AM and 2 PM on Clean Air Action days to a mandatory ban on Clean Air Action days.

Response: SWAPCA has already been working with the marine terminals in Vancouver to achieve a voluntary ban on barge loading during ozone events for many years. Therefore, this proposal does not satisfy a basic objective of SWAPCA's 1996 Ozone Maintenance Plan to achieve new emission reductions. In reviewing future emission forecast levels during the Ozone Maintenance Plan development process, SWAPCA took credit for all programs that were in place to help maintain acceptable ozone levels. The air shed evaluation process leading up to adoption of the Ozone Maintenance Plan demonstrated that new emission reductions had to be achieved, above and beyond the voluntary ban on gasoline barge loading, if the Vancouver/Portland area was going to be successful in keeping air pollution levels within the air quality health standards.

The purpose of this proposed rule is to achieve equivalent permanent emission reductions that were assumed would be achieved through construction of the Cross-Cascades Pipeline in the 1996 Ozone Maintenance Plan. The plan approved by the U.S. Environmental Protection Agency in April 1997 assumed that the emission reductions that would be achieved to merit a redesignation to a Maintenance Plan Area (i.e., clean air area) would be quantifiable, permanent and enforceable. In general, the proposed rule recognizes that now is the proper time to achieve permanent and enforceable emission reductions from this uncontrolled major industrial source category. Additional emission reductions may be necessary in the future from other mobile and area source categories to achieve healthy air.

Comment No. 3: Effect on Ozone Readings - SWAPCA's Attachment 1 says that barges at the Ports of Portland and Vancouver emitted 632 tons of VOC per year in 1992, which it says is 1% of total manmade VOC. That would indicate that the total manmade is 63,200 tons/year or 346,000 lb/day. Natural vegetation within the nonattainment area contributes another 70,000 lb/day. This totals 426,000 lb/day. Attachment 1 quotes 903 ton/year as the barge contribution in 2000. That would result in 2.1% ANNUAL barge

emissions relative to the total in 2000 for the COMBINATION of Portland and Vancouver ports, while Vancouver produces only a tiny fraction of the 2.1%. But there would be negligible emissions during the very few times when there is danger of an ozone exceedance. There would be no excuse for an increase in the cost of gasoline east of the Cascades.

The existing voluntary agreement that loading should take place only after 2 PM and before 2 AM should be quite effective in avoiding a contribution to high ozone readings, since the 4-6 hour delay in formation would prevent addition to the late afternoon peak ozone readings. There surely would not be anywhere nearly as much as a 2.1% addition to these readings, even if Portland rescinded its new regulation and continued the current practice.

Response: The Oregon Department of Environmental Quality stated in its rule making fact sheet that it believes gasoline barge loading activity may have contributed to the ozone exceedances which occurred in 1996 because of the heavy gasoline volumes loaded in the days prior to the incident. In their opinion, high ozone levels occurred in spite of efforts to predict ozone exceedances and the terminals' willingness to avoid loading on days predicted to be conducive to exceedances. SWAPCA staff agrees with the perspective of the Oregon Department of Environmental Quality staff and included it in SWAPCA staff's report to the Board of Directors on the 1996 exceedances. Consequently, SWAPCA staff does not support the idea proposed in this comment to be equivalent in effectiveness as the proposed rule. SWAPCA staff believes that the responses to Comment Nos. 1 and 2 also need to be incorporated into this response to Comment No. 3.

SWAPCA has partnered with the Oregon Department of Environmental Quality and the individual marine terminal sources impacted by this rule making to achieve a beneficial air quality outcome that would not cause unfavorable competitive impacts to an individual company, but would achieve necessary emission reductions to meet Ozone Maintenance Plan emission levels. This outcome was paramount from the source's perspective that the "level playing field" must be maintained with any rule making. Generally, the marine terminals have agreed that permanent emission reductions were acceptable if the "level playing field" could be maintained. The proposed rule was acceptable to the marine terminals in meeting these criteria. The marine terminals during the Oregon rule making process did not oppose this same rule.

Comment No. 4: Attachment 1 states that large barge loading the day BEFORE one ozone exceedance may have been a significant contributor to an exceedance that occurred in August 1996. The loading was in Portland and there was none in Vancouver. During that event the wind averaged about 9 mph late the previous day and 3 mph early the day of the exceedance. It was from the northern quadrant both days. At an average speed of 6 mph the air mass from the port had moved over 100 miles to the south by the time the

exceedance occurred. Thus it is not reasonable to blame the previous day barge loading for any contribution at all to the next day exceedance.

Response: SWAPCA staff does not agree with this comment. Unfortunately, information is being communicated as if it is reporting the results of a photochemical modeling analysis when in reality is only a highly oversimplified "back of the envelope" analysis that is being reported. This over simplified analysis does not recognize the existence of the complex meteorological phenomenon within the Vancouver/Portland "bowl." For example, the computer modeling performed by Washington State University for the 1996 ozone exceedances provided some useful insight on this complexity of air pollution movement within the Vancouver/Portland "bowl." In about two years SWAPCA will be able to use EPA approved photochemical models customized to our region by a Regional Modeling Center at Washington State University in Pullman, Washington. Photochemical computer models will be available to be downloaded to perform such analyses. Until that future capability occurs, SWAPCA staff believes that it must utilize both an emission inventory approach and a uniform bi-state ozone control strategy in order for our Vancouver/Portland region to have the best opportunity to provide healthy air for its citizens.

Comment No. 5: There is a misleading statement in Attachment 1 concerning the relative rank of emissions from barges. It says: "Most sources of volatile organic compounds within the Vancouver and Portland area are already required to control emissions. Among all the uncontrolled industrial source categories contributing to ozone pollution in the Vancouver and Portland area gasoline barge loading at 903 tons per year under current permit levels, is very large. Even in Portland, it far exceeds the next largest uncontrolled category, bakeries, at 285 tons per year."

The above annual barge emissions average 2.5 tons/day. The SWAPCA report on the 1996 ozone exceedances lists recreational boating at 17 tons/day, which is 6.8 times as much as the barge emissions would be if uncontrolled and a much greater factor than when they are controlled as described above. Since the recreational boating emissions are so much larger and totally uncontrolled the quoted statement seems very misleading, even though boating is not an "industrial source".

Response: SWAPCA's statement is not misleading. Very clearly the quote indicates that marine terminals are the largest "industrial" source category which has not been controlled. Recreational boating is not an industrial source category. On any given day in the summer ozone season, volatile organic compound emissions from recreational boating may be greater than gasoline barge loading emissions. There was no intent to suggest that larger emission sources do not exist within the Vancouver/Portland region. For example, emissions from other source categories in Clark County include Consumer Products (17 tons/day), Lawn and Garden Equipment (17 tons/day), Architectural Coatings which is House Paint (16 tons/day), Industrial Gasoline Storage (13 tons/day), Industrial Processes (12 tons/day), Industrial Surface Coatings (10 tons/day) Autobody Refinishing (9

tons/day), and Gasoline Stations (9 tons/day). On-Road Vehicle emissions (i.e., automobiles) are by far the largest volatile organic compound air pollution emission source at 84 tons/day.

In the specific case of recreational boating emissions, the statutory authority to reduce the emissions from these engines rests at the federal level with the U.S. Environmental Protection Agency and they have initiatives underway to reduce emissions in this category. On the other hand, SWAPCA does not have the legal authority to adopt rules that set emission limits on recreational boating engine emissions.

Comment No. 6: Policy - A main argument for the proposed rule is stated in the agenda as follows. "SWAPCA's proposed rule is equivalent to the Oregon rule in order to ensure a level competition field for gasoline barge loading operations." I was not able to find anything in the recently adopted mission statement for SWAPCA that called for use of its regulatory authority to restrict business competition between neighboring cities.

I realize that SWAPCA cannot prevent Oregon from continuing with their new rule and that the majority of barges are loaded in Portland and that will be the major factor in the \$1,500,000 to \$3,000,000 added annual cost to gasoline east of the Cascades. However, I do not see anything wrong with letting the Port of Vancouver provide an environmentally acceptable alternative for avoiding this higher cost for those barge operators who choose to do so.

Response: Reducing the uncontrolled air pollution emissions occurring during gasoline barge loading activities is consistent with the agency's Mission Statement: "To preserve and enhance air quality in southwest Washington." Specifically, our Vancouver/Portland interstate ozone air shed is poised to again exceed the ozone air quality health standard if our region has even one exceedance of the health standard in the summer of 2000. Approving this proposed rule is also consistent with SWAPCA Board of Director Value Numbers 1 and 5. Board of Director Value No. 1 states: "It is important for the region to first achieve healthy air..." and Value No. 5 states: "All decisions by the Board should be guided by the principle of doing what is best for the region as a whole." Maintaining healthy is a key motivation for the proposed rule. SWAPCA staff also believes that bi-state coordination with the Oregon Department of Environmental Quality is consistent with doing what is best for our region and the interstate ozone air shed. Further, the Oregon terminals and Oregon Department of Environmental Quality have requested that Vancouver maintain a level competitive field on both sides of the Columbia River. This level playing field approach is entirely consistent with the Washington Clean Air Act (RCW 70.94.011), SWAPCA's Mission Statement and SWAPCA's Board of Director Values.

Comment No. 7: Summary - In summary, I suggest that the rule be modified to require that Washington State ports choose between the proposed controls or an alternative to avoid fuel transfer to or from barges during specified hours on Clean Air Action Days.

Response: SWAPCA staff recommends that the Board of Directors adopt proposed SWAPCA 491 (“Emission Standards and Controls for Sources Emitting Gasoline Vapors”) as written.