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BEFORE THE STATE OF WASHINGTON
ENERGY FACILITY SITE EVALUATION COUNCIL

In re Application No. 96-1

OLYMPIC PIPE LINE COMPANY
CROSS CASCADE PIPELINE
PROJECT,

NO.

**REBUTTAL TESTIMONY OF HAROLD
W. ZARLING**

ISSUES: IN-LAND RIVER OIL SPILL
RISKS AND SPILL RESPONSE

SPONSOR: OLYMPIC PIPELINE
COMPANY

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Q: Please introduce yourself to the Council.

A: My name is Harold W. Zarling. I reside at 2218 N.E. 144th, Portland, OR 97230.

Q: Please describe your professional qualifications and experience relating to your testimony on marine casualties, oil spill risks, and spill response.

A: I have been in the oil spill response industry for over 25 years, and I have personally responded to and participated in over 200 spill responses on water. From 1971-1991, I worked as a foreman for Reidel Environmental Services (“Reidel”), where my responsibilities included training and directing the spill response crews. During this twenty years, I worked over 50 spills on rivers, including the Mississippi and Missouri Rivers – 30 spills on the Columbia/Snake River system alone. Prior to coming to Reidel, I worked aboard tugs, cargo vessels, and self-propelled barges, and in the past, I have held a tankerman’s certificate, a tow boat operator’s license and a second officer’s license, oceans, unlimited.

I formed an environmental consulting business, Zarling & Associates, in 1991 to provide consultation services on spill management, contingency plans, and response training. In the eight years since leaving Reidel, I have responded to at least six spills of significance, including the MORRIS J. BERMAN barge spill in Puerto Rico (involving approximately 800,000 gallons of heavy fuel oil) and the NEW CARISSA. I also assisted the federal and state agencies with the creation of the Geographic Response Plan (“GRP”) for the Lower Columbia River region, which was implemented in March, 1996.¹ By virtue of my extensive experience, I further serve as the Incident

¹ For the Council’s information, the GRP specifies species of birds, mammals, shellfish and fish that are at risk in the event of an oil spill. GRPs are used by first responders to oil spills to assist in establishing priorities for protecting natural and socio-economic resources. In essence, GRPs are “standing orders” by the federal and state agencies to first responders to avoid the initial confusion

1 Spill Response Coordinator for Clean Rivers Cooperative, Inc., which is the Oregon equivalent of
2 Washington State Maritime Cooperative (“WSMC”) in the lower Columbia River. Similar to WSMC
3 in the Puget Sound area, the vast majority of vessels over 300 gross tons transiting the river are
4 members of Clean Rivers. I am responsible for immediate implementation of Clean River’s umbrella
5 contingency plan to clean up a member vessel’s oil spill on the Columbia/Snake River system. A
6 more detailed summary of my experience is attached as Exhibit HWZ-1.

8 **Q: Do you have an opinion as to which mode of petroleum transportation is safer: The**
9 **current transportation system, including the marine and Columbia/Snake River transportation**
10 **portion, or the proposed Cross Cascade pipeline?**

12 A: No, I do not. I was requested by Olympic Pipeline Company to evaluate the pre-filed
13 testimony sponsored by Council for Environment, Tidewater Barge Company (“Tidewater”), and
14 others as if the proposed pipeline project were not pending before the Council. My assignment was to
15 use my extensive oil spill response experience on rivers to evaluate their collective pre-filed
16 testimony on the in-land transportation risks and determine whether their conclusions are fair and
17 realistic.

19 **Q: And did you reach any conclusions?**

20 A: Yes. I reached several conclusions. First, the pre-filed testimony of J. Wesley Miller, David
21 F. Dickins and Steven Hughes seems to largely ignore the extremely challenging navigational risks
22 associated with in-land transportation on the Columbia/Snake River system. Besides having to
23 navigate through eight sets of locks and deal with variant water flows (from dam releases) and
24 potentially extreme wind conditions, the narrow shipping channels and other vessel traffic make the
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that generally accompanies any spill.

1 trip from Portland to Pasco as challenging and risky as any in-land water transportation route in the
2 United States. Nowhere in their collective testimony was this risk acknowledged to any degree.
3 Their statistical analyses tended to sterilize these navigational risks.
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5 From my perspective, these navigational risks – combined with the inevitability of human
6 error (and the possibility of equipment and/or structural failures) – will ultimately result in a spill of
7 significance by Tidewater on the Columbia/Snake River system. The question is “when,” not “if.”
8 Tidewater has an excellent spill history on balance, and it is to be commended. However, for Mr.
9 Dickins to “predict” that only 49,600 gallons of petroleum products will be spilled by Tidewater in
10 the next 50 years seems out of touch with reality. I am not a statistician and I cannot prove this belief
11 with statistics, but the sheer number of marine casualties on Columbia/Snake River system, including
12 Tidewater’s operations, strongly supports the notion that a spill of substantial size by Tidewater is
13 possible, if not probable. It is only a matter of time before a single spill of significance occurs in
14 excess of Mr. Dickins’ prediction.
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16 **Q: What other spill risks on the river system appear to be discounted by them?**

17 A: The pre-filed testimony of Mr. Miller, Mr. Dickins, and Mr. Hughes provides very little
18 discussion regarding the risk to environmentally sensitive habitats that parallel the entire in-land
19 transportation system from Portland to Pasco. Instead, Mr. Dickins offers a hypothetical response by
20 Tidewater to two spill scenarios that is not only overly optimistic about Tidewater’s recovery
21 capabilities, but Mr. Dickins simultaneously downplays any appreciable damage to the environment.
22 I do not believe that his accounts fairly capture the gravity of the risk.
23

24 As someone who has responded to over 200 marine and in-land waters spills, Tidewater’s
25 response capabilities may be better than most barge operators, but the response scenarios described by
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1 Mr. Dickins are unlikely and unrealistic. Mr. Dickins' response scenarios are essentially what we
2 refer to as a "tabletop" exercise in the industry, i.e., if everything goes perfectly as planned.
3 However, I have never been involved in a spill response in my 25 years of responding to oil spills that
4 progressed as envisioned on the drafting board of some response organization, particularly a large
5 spill as envisioned in Exhibits DFD-7 and DFD-8 to Mr. Dickins' testimony. Despite careful
6 planning, logistics seldom work as efficiently as intended, and in the remote regions of the upper
7 Columbia/Snake River system, logistics are a primary consideration. Response time of key personnel
8 and boom deployment is critical for early containment and mitigation. If the arrival of equipment and
9 personnel is delayed, for example, which is as likely as not, or if some equipment fails to deploy as
10 designed, Mr. Dickins' estimates may be grossly unrealistic.
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13 In real life, response strategies and plans go awry, unanticipated problems occur, and
14 confusion impedes efficiency. To predict, as Mr. Dickins does in Exhibit DFD-7, that the spill rate
15 will be reduced from 30,000 gallons per hour to 10,000 gallons per hour within 4 hours, is closer to a
16 "best case" scenario than a "credible worst case scenario" as he represents.
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18 **Q: Are there any other parts of Mr. Dickins' spill response scenarios that were particularly**
19 **unrealistic in your opinion?**

20 A: Yes. Many assertions and representations are "tabletop" in nature, meaning that the
21 representations are what Tidewater aspires and/or has planned or trained to do. Whether Tidewater is
22 able to respond as efficiently as stated will vary with the specific circumstances. If I had to just select
23 the most aggressive assertion, however, it would be Mr. Dickins' statement in Exhibit DFD-7 that the
24 spill is over in 6 hours and Tidewater has removed 51% of the diesel spilled. This recovery and
25 response rate is very unrealistic in my experience. To get a river spill contained and controlled in 6
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1 hours is quite an accomplishment. His testimony simply does not acknowledge the difficulty in
2 responding to river spills, which present major challenges.

3 **Q: What are these major challenges?**

4 A: The primary challenges in responding to a river spill involve dealing with the current and
5 wind conditions and their combined effect on containment efforts. Oil on a river is a moving target,
6 perhaps more so than in open water or land-based spills. The challenge is to get ahead of the oil spill
7 as it moves downstream and set up containment boom in the proper locations. Selecting the right
8 place at the appropriate time can be very difficult and elusive depending on the spill site and weather
9 conditions. As a result, recovery rates for product spilled are highly variable. In my estimation,
10 therefore, Mr. Dickins' representations of the anticipated recovery rate for either spill scenario are
11 rather bold statements.
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14 DATED this ___ day of March, 1999.

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16 _____
17 Harold W. Zarling
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