

**BEFORE THE WASHINGTON  
UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,  
Complainant,  
v.  
PUGET SOUND PILOTS,  
Respondent.**

**Docket TP-**

**TESTIMONY OF  
CAPTAIN SANDY BENDIXEN  
ON BEHALF OF PUGET SOUND PILOTS**

**JUNE 29, 2022**

**TABLE OF CONTENTS**

I. IDENTIFICATION OF WITNESS.....1

II. PURPOSE OF TESTIMONY.....1

A. Projected Licensure of Current PSP Trainees during the Second Half of 2022 and First Quarter of 2023.....3

B. The Importance of Pilot Corps Diversification, Both in the Short and Long Term, for the Puget Sound Pilots.....4

C. Pilot Transfer Via Pilot Ladder is Inherently Dangerous and Requires Constant Vigilance Due to Poor Pilot Ladder Rigging Practices throughout the World.....10

III. CONCLUSION.....31

| <b>EXHIBIT LIST</b> |  |                        |
|---------------------|--|------------------------|
| <b>Exhibit No.</b>  | <b>Description</b>   | <b>Page Referenced</b> |
| SB-02               | Resume of Sandra P. Bendixen   | 1                      |
| SB-03               | EME Disembarking Tanker Kodiak   | 13                     |
| SB-04               | Witberbys Pilot Ladder Manual – Basic Edition  | 14                     |
| SB-05               | SOLAS, Chapter V, Safety of Navigation, Regulation 23  | 18                     |
| SB-06               | IMO Assembly Resolution A 1045(27)   | 18                     |
| SB-07               | International Standards Organization recently published updated standard for pilot ladder attachments and associated equipment | 18                     |
| SB-08               | Standardized form for pilots to document and report safety violations  | 28                     |

1  
2  
3 **I. IDENTIFICATION OF WITNESS**

4 **Q: Please state your name, business and business address.**

5 A: A: My name is Captain Sandy Bendixen. I am a state-licensed Puget Sound Pilot. My  
6 business address is 2003 Western Ave., Suite 200, Seattle, WA 98121.

7  
8 **Q: Please describe your educational and work history.**

9 A: I am a 2005 graduate of the Maine Maritime Academy, majoring in Marine  
10 Transportation Operations. I also did postgraduate work in Maritime Management and  
11 International Business for two years (2007-2009) at the Australia Maritime College. Before  
12 becoming licensed as a Puget Sound Pilot in 2018, I spent 9 years in bridge officer positions  
13 ranging from Third Mate to Captain for Inter-Ocean American Shipping sailing on roll-on/roll-  
14 off ships and for Crowley Maritime Corporation serving as Captain of ice class heavy lift ships  
15 and on military sealift command missions to the Arctic and Antarctic. For three years of my  
16 career, I served as the Marine Compliance Manager for Crowley Maritime, coordinating  
17 navigation training for captains and deck officers, simulator assessments for bridge team  
18 members supervising accident investigation teams and onboard underway captain and navigation  
19 assessments of all Crowley owned and managed vessels. A copy of my curriculum vitae is  
20 Exhibit SB-02.  
21  
22  
23

24 **Q: Please describe your career to date as a Puget Sound Pilot.**

25 A: I grew up in a maritime family in Alaska and Puget Sound and always wanted to become  
26 a pilot, which is the pinnacle of the maritime profession. I pursued possible trainee pilot

1 positions both in Southeast Alaska and Puget Sound, where I was ranked first following the  
2 written and simulator testing in both states. I chose the Puget Sound Pilots because of the  
3 progressive, collaborative, safety-first character of PSP's pilot corps. Based on my experience to  
4 date with PSP over what is now five years, I made the right choice.

5  
6 **II. PURPOSE OF TESTIMONY.**

7  
8 **Q: What is the purpose of your testimony?**

9 **A:** My testimony covers the following three topics:

- 10 1. The recent licensure of PSP's 53<sup>rd</sup> member pilot and a projection of how many of  
11 the current trainees will be licensed by the end of the first quarter of 2023;
- 12 2. My thoughts on the critical importance of pilot groups throughout the United  
13 States pursuing all available means of diversifying their organizations to include, for  
14 example, more women and candidates who are persons of color; and
- 15 3. A detailed description of the pilot transfer process to and from our pilot boat via  
16 pilot ladder to oceangoing vessels, the danger associated with that process and the far too  
17 frequent failure of vessels to properly rig pilot ladders, which results in considerable risk  
18 of serious injury or death to maritime pilots. To illustrate how dangerous pilot transfer is  
19 and the imperative that ships maintain compliant transfer arrangements, consider that  
20 between December 2019 and August 2020 alone, two Sandy Hook pilots died after  
21 falling from pilot ladders, which brought to light concern regarding non-compliant  
22 trapped door arrangements and pilot transfer.  
23  
24  
25  
26

1           A.     **Projected Licensure of Current PSP Trainees during the Second Half of 2022**  
2                    **and First Quarter of 2023.**

3     **Q:     Please describe your involvement in the training process for PSP trainees**  
4     **administered by the Board of Pilot Commissioners or “BPC.”**

5     A:     Since September 2021, I have been serving as a Commissioner on the BOPC and I  
6     currently chair the Training and Evaluation Committee, which oversees and administers the  
7     application and training process through examination, licensure, and license upgrades for pilots  
8     in their first five years of piloting. In that capacity, I am deeply involved in the 18-month or more  
9     training process for Washington State Puget Sound trainees.

10  
11    **Q:     As of June 1, 2022, what was the number of state-licensed Puget Sound Pilots?**

12    A:     As of that date, the total complement of PSP licensed pilots was 52, which is the current  
13    number funded by the UTC-approved tariff.

14  
15  
16    **Q:     Have any PSP trainees been licensed by the Board of Pilotage Commissioners since**  
17    **June 1, 2022?**

18    A: Yes. On June 21, Captain Eric Michael was issued his state license, became our 53rd pilot and  
19    immediately started working.

20  
21    **Q:     What is your projection regarding the potential for licensure of additional PSP pilot**  
22    **trainees between July 1, 2022 and March 31, 2023?**

23    A:     Based upon where our current number of seven trainees are in the midst of a very  
24    rigorous training process, I believe that an additional two trainees will be licensed in July, our  
25    54th and 55th pilots, and that a 56 license will likely be issued in early 2023.  
26

1                   **B.     The Importance of Pilot Corps Diversification, Both in the Short and Long**  
2                   **Term, for the Puget Sound Pilots.**

3     **Q:     Why do you believe that pilot group diversification to include more women and**  
4     **candidates who are persons of color is an important objective for a pilot group like the**  
5     **Puget Sound Pilots?**

6     A:     Based on my experience, diversity of career background, maritime work experience,  
7     sailing experience, gender and racial background is critical to a pilot group's ability to make the  
8     best decisions in a safety-critical transportation role because diversity has been proven to  
9     enhance the decision-making process of business organizations, preventing “group think” and  
10    mitigating error chain trapping that is critical to promoting safety culture. I firmly believe that  
11    the more our pilot group reflects the diversity of our Puget Sound community, the greater the  
12    level of PSP's accident-prevention capability.  
13  
14

15  
16    **Q:     In your opinion, what are the key factors necessary for a pilot group like PSP to**  
17    **compete on a national level for highly qualified mariners who are women or persons of**  
18    **color?**

19    A:     I believe that being competitive nationally for the highly qualified women and candidates  
20    from historically underrepresented backgrounds including persons of color who will literally be  
21    able to pick their pilot group is driven by two key factors. First, the pilot group's package of  
22    compensation and benefits is very significant. Anyone contemplating a move from work as a  
23    reasonably well-paid captain to the pinnacle maritime position of pilot with its much greater  
24    level of danger and legal risk is not willing to consider that move without a nationally  
25    competitive package of pay and benefits. That is especially true given that attempting to become  
26

1 a pilot requires candidates to quit their job and commit to up to three years of training with no  
2 guarantee of licensure, knowing that it will be nearly impossible for the candidate to return to his  
3 or her old job after that long period of time away if the candidate fails to become a pilot.

4 Second, I know that for women and I believe the same consideration is important to other  
5 historically underrepresented candidates, that the culture of the particular pilot group is an  
6 extremely important consideration. Is the pilot group supportive of diversity? Do the group's  
7 members genuinely look out for each other and embrace, to the extent possible, a family-friendly  
8 work environment?

9  
10  
11 **Q: How do you think the Puget Sound Pilots currently stack up with respect to the two**  
12 **factors you just described?**

13 A: In my opinion, PSP is at the top of the list nationally in terms of the supportive culture of  
14 our pilot group, but we are far from being nationally competitive because of our relatively low  
15 levels of compensation and benefits. As the detailed compensation information in the testimony  
16 of David Lough shows, PSP is currently dead last on the West Coast in terms of net income in  
17 2021 and we are an outlier nationally on medical insurance benefits because the UTC has  
18 ordered that our medical insurance plan be defunded in the tariff effective January 25, 2023. In  
19 my opinion, unless the UTC increases PSP's compensation and benefits to nationally competitive  
20 levels, we will struggle as a pilot group to attract the most skilled and talented applicants.

22 On a personal level, I find it deeply upsetting that at this time I cannot honestly and in  
23 good conscience mentor and encourage an interested female captain to pursue a career with  
24 Puget Sound Pilots when I know full well that the financial benefits of almost any other pilotage  
25 district in the country are superior to Puget Sound, and that for the first time in my and most of  
26

1 my colleagues' professional maritime careers we are soon to be entirely without funded medical  
2 benefits.

3  
4 **Q: What is your basis for stating that the Puget Sound Pilots are at the top the list  
5 nationally in terms of being a pilot group with a supportive, family-friendly culture?**

6 A: Two examples come immediately to mind. First, I saw during my interactions with PSP  
7 pilots before deciding to apply for a trainee position and spend the \$5000 to take the written and  
8 simulator tests (plus an additional approximately \$20,000 spent on exam preparation) that  
9 despite having no female members at the time, PSP was a pilot group with a strong ethos of  
10 respect that judged candidates on their merit without regard to background, and had a very strong  
11 committee structure and six person Board of Directors that maximizes participation throughout  
12 the pilot corps that in my opinion facilitates a more collaborative approach to decision-making  
13 and ultimately better decisions. I had also been mentored by Puget Sound Pilots while sailing as  
14 a young Third Mate. These individual pilots followed me during the early years of my career,  
15 checking in, offering advice, and encouraging me to grow in my career. The positive impact that  
16 these pilots and their outreach had on me is a key reason that I became a Puget Sound Pilot. The  
17 supportive culture of our association continued once I became a pilot, with more senior pilots  
18 providing guidance on challenging jobs and encouraging me to take on leadership roles. Many  
19 other U.S. pilot groups tend to have a more corporate, top down type of approach to running their  
20 organizations. At PSP, from the day you join our association your opinion and ideas are taken  
21 seriously, and you are treated as an equal member of our team. In my opinion, the PSP approach  
22 is better and much more welcoming to not only new pilots, but pilots from diverse backgrounds.  
23  
24  
25  
26



1 The second example is PSP's support of me when I became pregnant and had a  
2 complicated delivery. PSP has a rule that if a pilot is medically unfit to pilot, that pilot is entitled  
3 to participate in a major medical leave program that provides six months' paid leave subject to  
4 the approval of PSP's board. Historically, this rule has been applied in situations where the pilot  
5 suffers a major injury in a pilot ladder accident or is otherwise medically unfit for duty for an  
6 extended period. As the first female pilot in Washington State, my pregnancy raised a novel  
7 potential application of this rule.

8 Upon reviewing notice from my doctor that I was not fit for duty, the PSP board  
9 unanimously voted to apply the rule to my pregnancy when I was no longer fit to climb a pilot  
10 ladder and to recover following a complicated delivery. Even before I was declared not fit for  
11 duty, my fellow pilots routinely volunteered their time to work for me, trade assignments with  
12 me, and generally do anything they could to support me as we travelled together down the path  
13 of discovering how a pilot in Washington can balance our incredible professional challenges and  
14 being a mother. For me, this entire experience proved more than perhaps any other that PSP  
15 doesn't just claim to be supportive of its pilots, but actually walks the walk. That fact was  
16 confirmed yet again when earlier this year PSP became the first pilot group in the country to  
17 adopt a progressive maternity leave policy that will allow a pregnant pilot to take substantial and  
18 effective paid time off due to the dangers of pilot transfer and demands of the job.  
19  
20  
21

22 **Q: Have you had the opportunity to review the testimony of Chief Mate Alysia Johnson**  
23 **and her opinion that PSP's maternity leave policy, if adopted by other U.S. pilot groups,**  
24 **would cause more women pursuing seagoing deck officer careers to spend the 10 to 15**  
25 **years necessary to be promoted to captain and then qualify to become a pilot?**  
26

1 A: Yes, based upon discussions with other women who are in the midst of those seagoing,  
2 towboat or ferry deck officer careers, I believe that adoption of maternity leave policies  
3 throughout U.S. pilot groups would have a significant impact and increase the number of women  
4 devoting that 10 to 15 years needed to achieve the rank of Captain and qualify to become a  
5 maritime pilot. In fact, I have recently been in communication with a Chief Mate on a vessel that  
6 regularly calls Puget Sound who is considering leaving her sailing career to start a family and is  
7 trying to determine whether her family priorities are compatible with her career goal of  
8 becoming a pilot. This individual needs to accrue just one year of sea time as a captain before  
9 she would be eligible to apply for the BPC training program. It is my hope that by the time she is  
10 eligible I will be able in good conscience to advise her that applying for a career as a Puget  
11 Sound Pilot is a sound financial decision relative to positions within other pilot groups that will  
12 likely be available to her.  
13

14  
15 **Q: Does it matter in your opinion how quickly the UTC acts to increase PSP**  
16 **compensation and benefits to nationally competitive levels?**

17 A: Yes. For potential pilot trainee applicants who are currently serving as captains of  
18 towboats, ferries or seagoing vessels, making a midcareer move to apply to become a pilot  
19 requires considerable thought and planning. The multiple tests that ultimately generate a ranked  
20 list of trainee candidates on any pilotage ground throughout the United States are scheduled only  
21 every several years. The last BPC tests were administered in April 2021. If PSP is to compete for  
22 the best of the best merchant mariners and a share of the highly qualified diverse candidates,  
23 there must be time for the word to spread. In my opinion, that means at least a year or more  
24 before those tests occur.  
25  
26

1 **Q: Considering that it was only six years ago that you first applied to become a PSP**  
2 **trainee, what expectations do you have regarding the next applicant pool that will take the**  
3 **PSP trainee tests provided the UTC funds PSP at the level requested in this rate case?**

4 **A:** Based on PSP's strong reputation for a collaborative, supportive and family-friendly work  
5 environment and its nation-leading policies regarding diversity, equity and inclusion, I believe  
6 that the next applicant pool will include a significant number of diverse candidates provided the  
7 UTC approves a nationally competitive level of compensation and benefits (both medical  
8 insurance and pension) for PSP in this rate case. I note that PSP and BPC are doing all we can to  
9 promote diversity on all fronts (be it gender, ethnicity or race, economic, education, or  
10 professional background) including by developing a DEI policy, an outreach team, working in  
11 the local schools and community, and supporting organizations through scholarships and  
12 community involvement. In my opinion, it is deeply regrettable for these efforts to be allowed to  
13 be undermined by pilot compensation that is fundamentally not competitive with other pilotage  
14 districts seeking to attract the same small pool of candidates. For context as to just how small the  
15 candidate pool is, consider that per a recent statement by the chief of the Mariner Information  
16 Division of the U.S. Coast Guard, in the United States there are only 149 women who hold a  
17 Master Unlimited – Any Gross Tons license out of approximately 210,000 U.S. mariners.  
18  
19  
20  
21

22 **C. Pilot Transfer Via Pilot Ladder Is Inherently Dangerous and Requires**  
23 **Constant Vigilance Due to Poor Pilot Ladder Rigging Practices throughout**  
24 **the World.**

25 **Q: What is a pilot transfer?**  
26

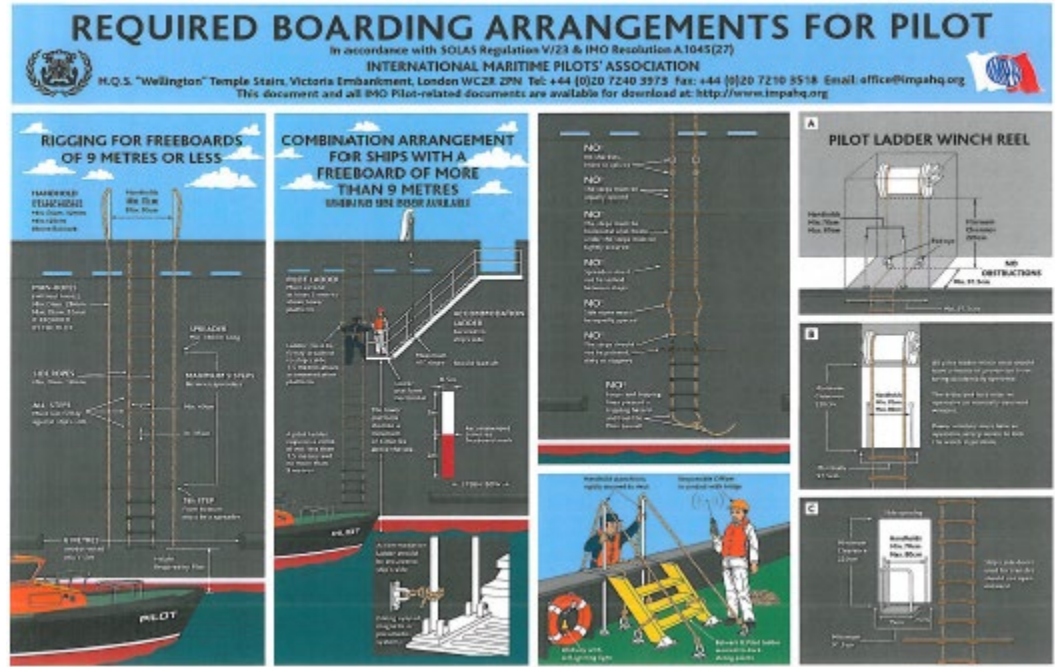
1 A: Pilot transfer is the process of a pilot embarking and disembarking a ship. There are  
2 different methods of executing a pilot transfer. Some pilot groups including the Columbia River  
3 Bar Pilots utilize a helicopter transfer system, whereby the pilot is suspended in a harness and  
4 lowered from a helicopter to the deck of a ship or, in the case of disembarking, is raised from the  
5 deck to the helicopter. A helicopter transfer system can increase speed and improve safety of the  
6 pilot transfer, particularly in bad weather or eliminate the pilot's need to rely solely on the vessel  
7 crew's seamanship skills and proper maintenance of pilot transfer equipment that is not always  
8 safe, adequate and in conformance with international requirements. However, this transfer  
9 method has limitations due to the inability of the helicopter to operate and place a pilot aboard in  
10 heavy fog, snow, or based on vessel layouts.  
11

12 The more traditional and most common method of pilot transfer throughout the world,  
13 which has been deployed by members of our organization since its establishment, is the use of a  
14 pilot ladder arrangement. Below are two photographs that show the execution of this type of  
15 transfer process. The first photograph of a Puget Sound Pilot at the pilot station in Port Angeles  
16 shows the pilot boat alongside the ship, and the second photo shows the pilot ascending the pilot  
17 ladder after disembarking the pilot boat:  
18





1  
2  
3  
4  
5  
6  
7  
8  
9 Performing this method of pilot transfer can be extraordinarily difficult and dangerous,  
10 especially in bad weather or high seas. The transfer is also made much more dangerous when the  
11 ship fails to provide a pilot ladder arrangement that complies with international safety  
12 requirements, which is a shockingly common occurrence, particularly given that every ship is  
13 required to maintain on the bridge a placard illustrating proper pilot transfer safety practice. That  
14 placard is reproduced below



1           **Q:     Could you please describe how a pilot transfer is executed using a pilot**  
2 **ladder arrangement?**

3           A:     Pilot transfer typically occurs at sea, with the ship sailing under power. In the case  
4 of embarking, the pilot is brought to the ship by a pilot boat. Before the pilot arrives, the ship's  
5 crew will have rigged the pilot ladder outboard on either the port or starboard side as ordered by  
6 the pilot. The pilot boat will then come alongside and approach the ladder, usually on the lee side  
7 if possible to reduce wind exposure. Once the pilot boat is correctly positioned – which is no  
8 easy task, particularly in rough weather – the pilot must precisely time the transition from the  
9 pilot boat deck onto the ladder by stepping just when the pilot boat is at the crest of the wave so  
10 that the pilot's body or legs are not crushed by the pilot boat if it were to continue to rise.  
11

12           Properly executing the transition step from the pilot boat to the pilot ladder is much easier  
13 said than done. The ship and the pilot boat may be moving at different speeds. Moreover, the two  
14 vessels may experience different pitching and rolling motions, especially when there is a  
15 significant swell. Poor timing or a single misstep could cause the pilot to fall back onto the pilot  
16 boat deck, or worse, into the water. This transition is even more difficult and dangerous when  
17 disembarking because the pilot has just one opportunity to let go of the pilot ladder at exactly the  
18 right instant in order to contact the pilot boat deck at the peak of a swell and avoid falling. A  
19 video of one of our pilots falling from a ladder onto the deck of the pilot boat while  
20 disembarking is Exhibit SB-03, which can be accessed through the following link:  
21  
22  
23  
24  
25  
26



11 As shown in Exhibit SB-03, the unpredictable movement of the pilot boat relative to the ship  
12 causes the pilot to mistime his step off and nearly fall into the water.

13  
14 Once the pilot has transferred off the pilot boat, he or she must ascend the pilot ladder to  
15 the deck of the ship. This is a very physically demanding task, especially if the ship is pitching or  
16 rolling, which requires the pilot to suspend his or her body weight at a difficult angle and in  
17 constant motion. Throughout this process, it is critical that the pilot maintain at least three points  
18 of contact with the ladder at all times. Yet in my time piloting, I have personally encountered  
19 broken ladder steps that create a significant risk of serious injury or death.

20  
21 Depending on the size of the ship and the amount of freeboard, different ladder  
22 arrangements may be deployed. For vessels with freeboard of nine meters or less, the pilot may  
23 ascend directly over the ship's side using a single ladder. Exhibit SB-04 is a copy of Witherbys  
24 Pilot Ladder Manual Basic Addition (Witherbys also publishes an "Advanced Edition" that  
25 provides a level of detail that exceeds the scope of my testimony but provides invaluable  
26 information for pilots and ship operators). Figure 2.1 (at page 6) of Exhibit SB-04 shows an

1 illustration of a properly rigged single pilot ladder for freeboard of nine meters or less, which is  
2 reproduced below:

3  
4 Pilot Ladder Manual Basic Edition

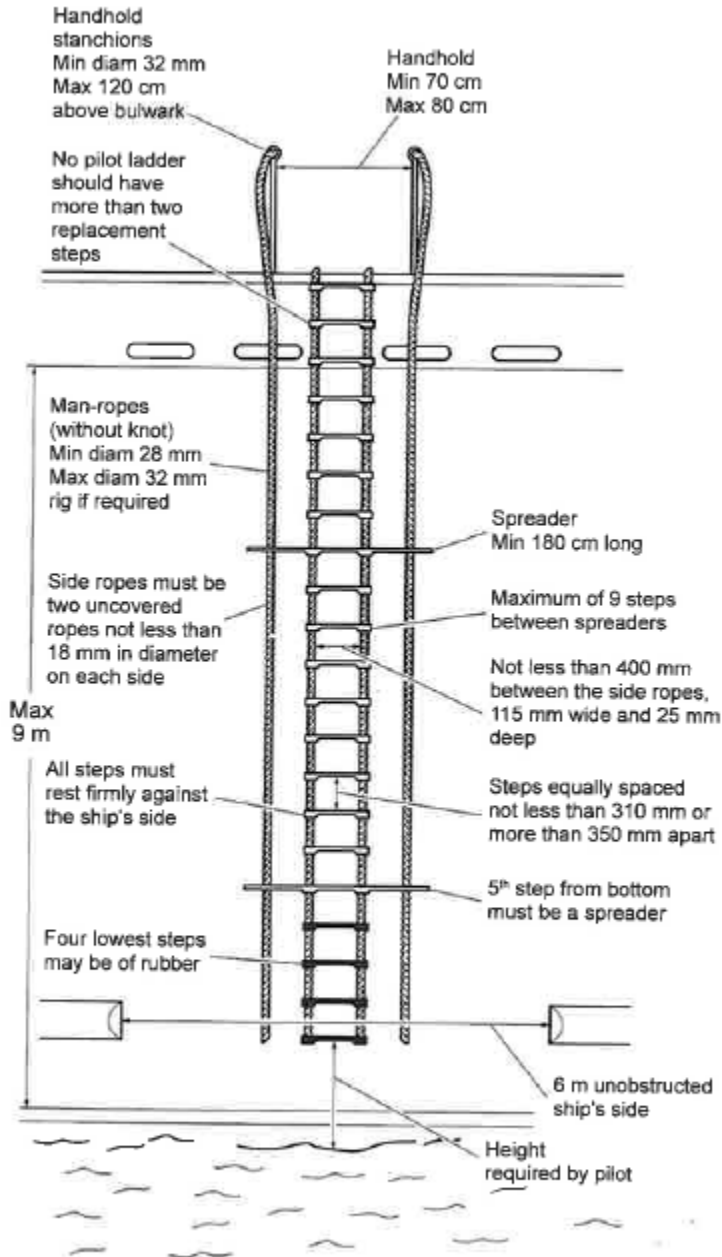


Figure 2.1 - Rigging for freeboards of 9 m or less



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26

For ships with more than nine meters of freeboard, a side door or combination ladder arrangement is used. The photographs referenced included with my initial description of pilot transfer show this arrangement in use. Figure 2.4 (at page 12) of Exhibit SB-04 shows an illustration of a properly rigged combination ladder arrangement, which is reproduced below:

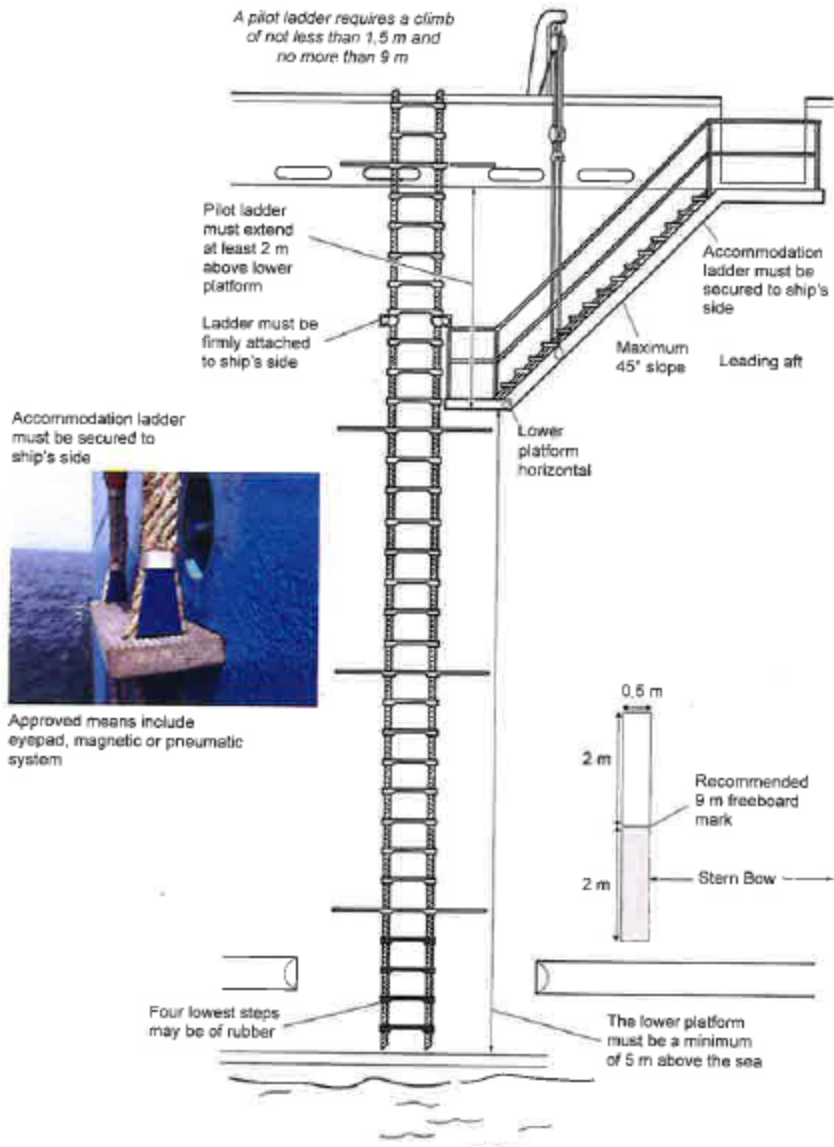


Figure 2.4 - Combination arrangement for ships with a freeboard of more than 9 m when no side door is available

1           **Q:     You stated that international safety rules apply to pilot ladder arrangements;**  
2 **could you please describe those rules?**

3           A:     The two most significant sources of international rules governing pilot transfer  
4 arrangements are SOLAS, Chapter V, Safety of Navigation, Regulation 23 (“SOLAS”), which  
5 regulates onboard ship requirements for the safe deployment of pilot ladder arrangements, and  
6 IMO Assembly Resolution A 1045(27), which provides technical specifications for pilot ladders.  
7 Copies of these two regulations are Exhibits SB-05 and SB-06 to my testimony. These  
8 regulations, while critical, are not the only sources of accepted safety standards. For example, the  
9 International Standards Organization recently published updated standard for pilot ladder  
10 attachments and associated equipment, which is Exhibit SB-07.  
11

12           Together, these regulations and international standards detail a range of specific  
13 requirements that are designed to protect pilots from subpar or improperly deployed equipment  
14 that exacerbates the inherent risks of pilot transfer, which are life threatening even in ideal  
15 circumstances. Basic principles such as ensuring that the ladder is free and clear of grease, is  
16 kept at an appropriate height above the waterline, is resting horizontally against the ship’s side,  
17 and is properly secured to the deck at certified strong points are all examples of international  
18 requirements that must be complied with to protect pilots’ lives and safety. Technical  
19 specifications regarding the materials used to construct pilot ladders and their dimensional  
20 specifications are also critical safety requirements.  
21

22  
23           **Q:     Are the international regulations that apply to pilot transfer arrangements**  
24 **consistently complied with by the shipping industry?**  
25  
26

1 A: No. In fact, the frequency with which we encounter dangerously non-compliant  
2 pilot transfer arrangements is quite shocking and completely unacceptable.

3 It is important to understand that embarking and disembarking ships is both a life-  
4 threatening exercise and a necessary part of pilots' day-to-day commute to their job. In recent  
5 years, many pilots have sustained fatal or other serious injuries caused by pilot ladder accidents.  
6 I can think of no other profession where a person routinely puts his or herself at such extreme  
7 risk simply travelling to and from work. Incredibly, some vessels that call Puget Sound have  
8 departed the shipyard at first construction in the early 2000's with pilot transfer arrangements  
9 that have been non-compliant since 1979. Thankfully some – though certainly not all – of these  
10 companies are finally taking steps in 2021 and 2022 to modify these non-compliant  
11 arrangements that are known to have killed and seriously injured pilots in the U.S. in recent  
12 years.  
13

14 Many of these accidents could (and should) have been avoided had the ship and its crew  
15 followed the required safety protocols and provided a compliant pilot transfer arrangement. For  
16 example, one of our own PSP members sustained life-altering injuries when he was struck in the  
17 head by an improperly secured magnet while ascending the pilot ladder. Remarkably, the same  
18 shipping company whose negligence caused this pilot's injury continues to send ships to call at  
19 Puget Sound with non-compliant and unsafe pilot transfer arrangements.  
20

21 The ways in which ships routinely violate SOLAS and IMO requirements for pilot ladder  
22 safety are almost limitless. Photographs that illustrate just a few examples are reproduced below  
23 with brief descriptions.

24 Photograph No. 1 shows a shackle that is improperly secured to a rusted pad eye that is  
25 visibly near failure:  
26



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26

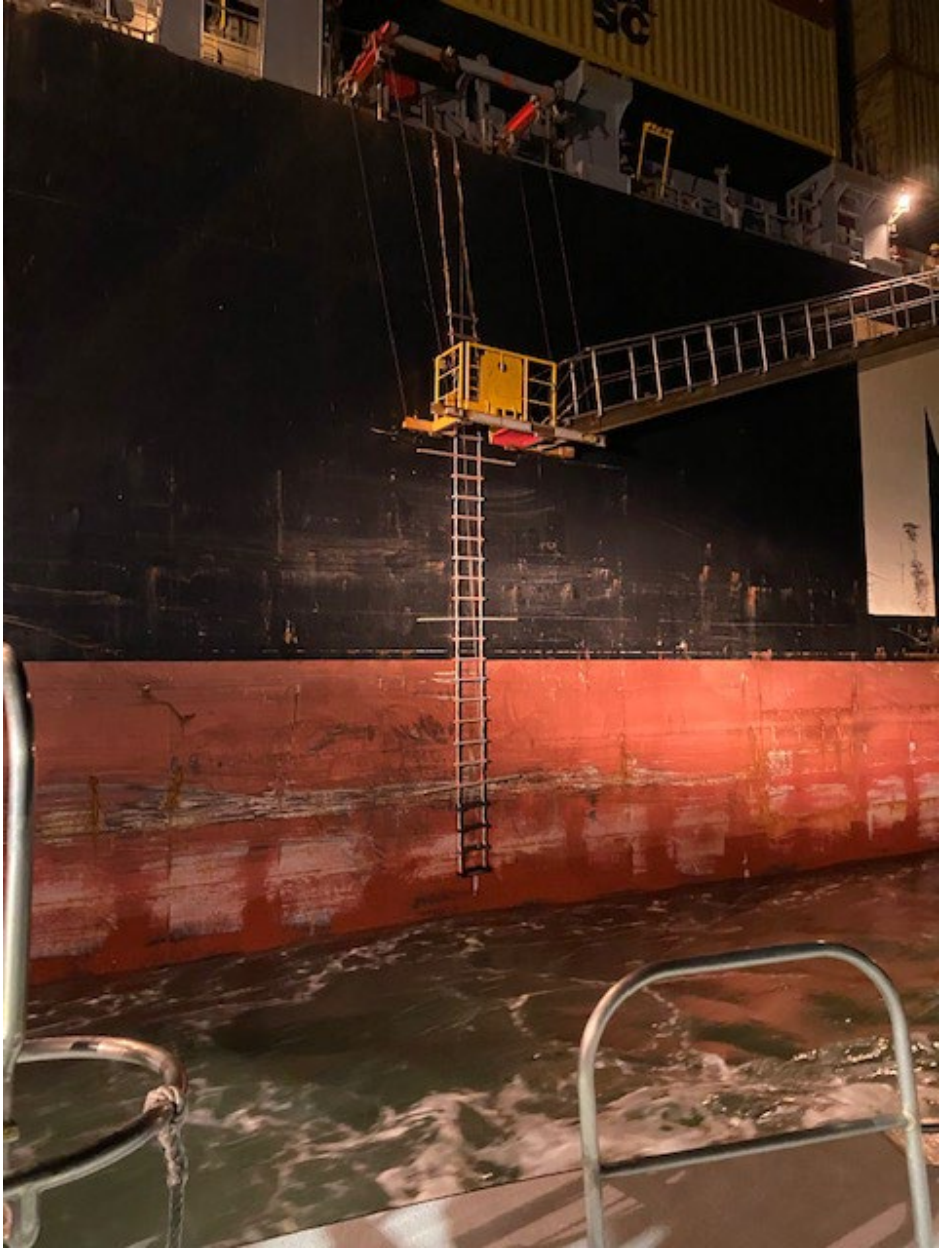
Photograph No. 2 shows a ladder that is loosely tied to the ship. One step onto this ladder and the pilot would drop many feet. Fortunately, this issue was discovered during disembarking which gave the pilot an opportunity to require the ship’s crew to correct the issue before using the ladder:

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26



Photograph No 3. shows a ladder that is dangerously angled and held in place with magnets only:

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26



Photograph No. 4 shows an improperly placed bar that is blocking the ladder:

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26



Photograph No. 5 shows ladder ropes resting on the sharp edge of the ship's hull with no chafing gear:



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26



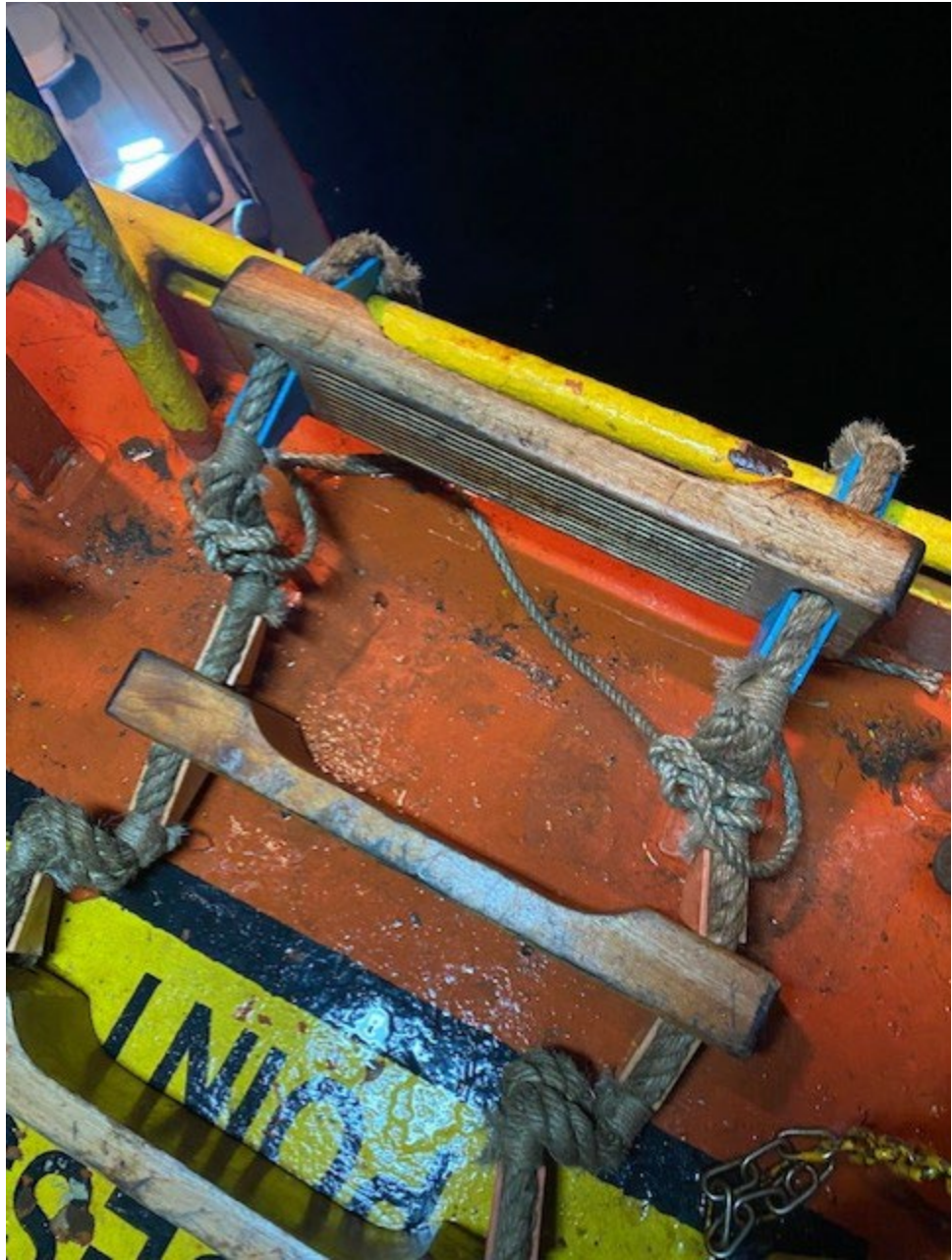
Photograph No. 6 shows an improperly rigged combination ladder with multiple defects including magnets failed and in the wrong location, a platform that is not flat, and a ladder not resting against the ship's side. Magnets help to secure the ladder at an intermediate point to the ship's hull when the distance from the water to the ship's access point exceeds nine meters (approximately 30 feet). Nine meters is a critical height measure in pilot transfers, as this is the

1 height that has been scientifically proven to significantly increase fatalities and yet pilots climb  
2 this height daily without fall protection, which is infeasible as it would create additional  
3 independent hazards. Given adverse sea conditions that create motion of the vessel and rope  
4 ladder, it is essential that these magnets function properly and are rigged correctly 100% of the  
5 time:



Photograph No. 7 shows a ladder secured by an inadequate and noncompliant rope  
1 roughly the diameter of a crab pot line. The concern here is that if the pilot boat touches the  
2 ladder (which may occur particularly in adverse weather), the ladder would fall or break due to  
3 lack of sufficient strength as the pilot is ascending causing the pilot to fall into the water or onto  
4 the deck of the pilot boat or causing several hundred pounds of ladder to fall from a significant  
5 height onto the pilot boat hitting the deckhand and/or the pilot:  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26



As Puget Sound Pilots, we routinely encounter these and many other types of non-compliant, defective, and unsafe pilot transfer arrangements, some of which are shown and described at pages 9, 13, and 14 of the Pilot Ladder Manual that is Exhibit SB-04 to my testimony.

1           **Q:     How have Puget Sound Pilots historically addressed or responded to unsafe**  
2 **pilot transfer arrangements?**

3           A:     Piloting is a unique profession that is practiced by men and women who by their  
4 nature welcome any challenge and do not like to complain. Culturally, pilots as a group are all  
5 former vessel captains who are defined by our “can do” attitude. While this is an  
6 overwhelmingly positive trait, it can sometimes manifest in a way that leads pilots to “just deal  
7 with” unsafe working conditions that we should not have to put up with. I can think of no other  
8 industry in which a business could get away with consistently and egregiously disregarding  
9 safety regulations the way I have seen shipowners and crews flout pilot transfer arrangement  
10 requirements.  
11

12           While the fault for non-compliant transfer arrangements rests squarely with the shipper, it  
13 is up to pilots to speak up for ourselves and demand compliance, including by refusing to board  
14 ships that fail to provide a safe transfer arrangement. Fortunately, the culture surrounding this  
15 issue is changing. Our organization has implemented a standardized form for pilots to document  
16 and report safety violations, an example of which is Exhibit SB-08. This information can be  
17 (and, when appropriate, is) shared with the pilot organization at a non-compliant ship’s next port  
18 of call to enable our colleagues there to require corrections and make informed decisions about  
19 whether and under what conditions to accept the pilotage job. PSP also reports all non-compliant  
20 pilot transfer arrangements to the U.S. Coast Guard, BPC, and when necessary, to the vessel’s  
21 classification society. In some cases, PSP may refuse service to a ship until it is brought into  
22 compliance.  
23  
24  
25  
26

1 **Q: Can you give a recent example of PSP putting a shipowner on notice that a vessel**  
2 **will not receive pilotage service unless the ship fixes a noncompliant pilot ladder**  
3 **arrangement?**

4 A: Yes. A good example of these measures in action is PSP's response to the M/V NAVIOS  
5 CHRYSALIS, which called Puget Sound in March 2022 with an unsafe trap door arrangement.  
6 To protect our pilots, PSP made the difficult decision that the vessel would not be allowed to  
7 receive a pilot without a safe arrangement in place if it were to return. In addition to notifying the  
8 Coast Guard and the BPC, PSP sent a copy of our report and photographs to the vessel's master  
9 along with a recommendation that the ship rig a traditional combination ladder in place of the  
10 unsafe trap door arrangement. Lastly, with the help of the Dangerous Ladders Facebook group (a  
11 group maintained by pilots around the world), we were able to contact the pilot organization at  
12 the ships next port call in Kaohsiung, Taiwan. The Taiwan Pilots reported back that the ship  
13 arrived using PSP's recommended traditional combination ladder arrangement.  
14

15 This case presents a perfect example of pilot organizations supporting each other's safety  
16 through effective communication and a willingness to insist on working conditions that are not  
17 made less safe by non-compliant transfer arrangements. I recently met the Australia pilot who  
18 put me in contact with the Taiwan pilot to report the NAVIOS CHRYSALIS to their port at an  
19 international pilot conference held in Cancun, Mexico. These conferences are critical to pilot  
20 transfer safety and provide an excellent opportunity to learn from and share with other pilots  
21 around the world new concepts and techniques to promote a safe pilotage district.  
22  
23  
24  
25  
26

1 **Q: What prompted you to take on a leadership role with respect to the promoting pilot**  
2 **awareness and response to transfer arrangement safety issues?**

3 A: After the birth of my daughter, I remained for a short time on major medical leave from  
4 active piloting. By the time my daughter was about 12 weeks old, however, I was back on watch.  
5 One day shortly after returning from leave I was embarking the M/V CAP LEON. The weather  
6 was bad with wind blowing out of the north at about 50 knots. As I ascended the ladder about  
7 eight meters above the waterline I was being slammed against the side of the ship due to the  
8 rolling of the 274 meter deeply loaded tanker in the confused sea and swell conditions, and the  
9 pilot ladder not properly maintained. The handrails of the ladder were covered in grease and the  
10 ladder was secured to the bottom of the trapped door platform – an arrangement that is  
11 completely unacceptable for a vessel of that age.  
12

13 As I slammed against the ship side, I thought “this is crazy.” In that moment I knew that I  
14 had a responsibility not just to myself and my family, but to my fellow PSP members and pilots  
15 around world to do everything in my power to improve this widespread and deadly problem. I  
16 simply could not accept the guilt of not taking action to fix every unsafe pilot ladder I can,  
17 knowing that it could end the career or life of the next pilot to step onto it if I said nothing.  
18

19 As Puget Sound Pilots, putting our lives on the line to protect people and the Puget Sound  
20 environment is part of our job. We understand and accept the risks that are inherent in our work.  
21 But those risks should not be compounded by unsafe and illegal pilot transfer arrangements. I am  
22 proud of the work that I and my fellow pilots both in PSP and with pilot organizations around the  
23 world are doing to prevent and address these problems when they are identified.  
24  
25  
26

**III. CONCLUSION.**

1

2 **Q: Does this conclude your testimony?**

3 A: Yes.

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26



**Haglund Kelley, LLP**  
**2177 SW Broadway**  
**Portland, OR 97201**  
**Tel: (503) 225-0777 / Fax: (503) 225-1257**