

## **Al Roxburgh Testimony, April 7<sup>th</sup> 2015, Portland PSC E-Zone Hearing**

Can we evaluate an author by their choice of words? To some extent we can.  
But often far more telling are the words not chosen.

I have done a comparison of Pembina's 66K word QRA against the far more comprehensive Port of Long Beach (POLB) 391K word EIR/EIS, and expanded HAZARDS ANALYSIS Appendix F, for the now canceled Port of Long Beach LNG/propane import terminal. I chose Long Beach because in many respects, that project is similar to the propane project on the table in Portland.

POLB's impact statement was far more comprehensive and aware of the big risk hazards, than the Pembina QRA.

Things not said often reveal what someone cannot or does not want to talk about. A key-word count of Pembina's QRA does not inspire confidence, and seems to suggest a mindset that is ignoring or ignorant of Portlanders and today's issues in the marine propane terminal business.

Clearly, Pembina does not want to talk about the big risks of:

- terrorist attack
- *offsite* rail safety
- domino effects (industry authorities consider QRAs which inadequately address domino effects to be faulty)

Without full QRA/EIS discussion of these topics, the value of the virtually-zero risks determined by the Pembina QRA is just about the same... zero.

I'll just pick a few key words (the whole table is given on the second page).

### **Zero-mention in Pembina QRA vs. (POLB):**

- 0 'guarantee' (1)
- 0 'responsible' (61)
- 0 'responsibility' (19)
- 0 'terrorism' (16)
- 0 'terrorist' (16)
- 0 'first responder' (1)
- 0 'security' (402)
- 0 'detonation' (22)
- 0 various terrorist MOs (including bombs, plane, boats) (373)
- 0 'crash' (131)
- 0 'Police' (22)

### **On the other hand:**

- 1 'USCG' (17)
- 1 'Collision' (176)
- 1 'Radius' [as in blast radius] (28)
- 2 'Reliability' (73)
- 75 'Accident'/'accidental' (442)

But perhaps most telling about Canadian company Pembina's plans for Portland, and about how they really see us, is that the QRA mentions:

**'Safety' only 43 times vs. (352) and  
'Environment' only 17 times vs. (634)**

Pembina's not addressing vital issues is just one of the many reasons why the Pembina application should be denied.

Thank you.

Alastair Roxburgh, 1503 N Hayden Island Drive, Portland, OR 97203  
Founding member of Northwest Citizen Science Initiative(NWCSI)

| <i>Red shading indicates terms that we consider appear too infrequently for the Pembina QRA to be valid</i> |                    |  |   |
|---|--------------------|--|---|
| <i>Term</i>   | <i>Pembina QRA</i> | <i>POLB LNG Term'l EIR/EIS (no Appndx F)</i> | <i>POLB LNG Term'l Appndx F: Hazards Analysis</i> |
| Guarantee   | 0                  | 1  | 0   |
| Responsible   | 0                  | 60   | 1   |
| Responsibility  | 0                  | 18   | 1   |
| Terrorist   | 0                  | 217  | 176   |
| Terrorism   | 0                  | 13   | 3   |
| Criminal  | 0                  | 0  | 0   |
| Deflagration  | 0                  | 3  | 3   |
| First Responders  | 0                  | 1  | 0   |
| LEL   | 0                  | 0  | 0   |
| Detonation  | 2                  | 11   | 11  |
| Security  | 7                  | 339  | 63  |
| Blast   | 8                  | 12   | 9   |
| Truck Bomb  | 0                  | 27   | 30  |
| Boat Bomb   | 0                  | 29   | 32  |
| Bomb, Bombing   | 0                  | 10   | 6   |
| RPG   | 0                  | 72   | 69  |
| Satchel Charge  | 0                  | 12   | 12  |
| Commercial Jet  | 0                  | 13   | 19  |
| Hijack  | 0                  | 23   | 19  |
| Simultaneous Hijacking  | 0                  | 0  | 0   |
| Police boat   | 0                  | 0  | 0   |
| Police  | 0                  | 22   | 0   |
| USCG boat   | 1                  | 10   | 7   |
| Suspect ship  | 0                  | 0  | 0   |
| Crash   | 0                  | 64   | 67  |
| Collision   | 2                  | 176  | 0   |
| Emergency   | 10                 | 203  | 0   |
| Escalation  | 15                 | 0  | 0   |
| VCE   | 18                 | 8  | 8   |
| Vapor cloud   | 27                 | 119  | 95  |
| Jet fire  | 42                 | 1  | 1   |
| Safety  | 43                 | 320  | 32  |
| Flash Fire  | 51                 | 33   | 30  |
| Pool fire   | 53                 | 86   | 78  |
| Overpressure  | 59                 | 131  | 93  |
| Accident, accidental  | 75                 | 285  | 157   |
| BLEVE   | 79                 | 21   | 21  |
| Reliability   | 2                  | 55   | 18  |
| Compromise  | 0                  | 7  | 3   |
| LFL   | 92                 | 21   | 8   |
| Ignition  | 128                | 129  | 92  |
| Rupture   | 149                | 138  | 70  |
| Rail, railcar   | 289                | 20   | 16  |
| Trailer (truck)   | 0                  | 106  | 4   |
| Derail(ment), derailed  | 41                 | 1  | 1   |
| Radius  | 1                  | 21   | 7   |
| US, USA   | 7                  | 99   | 1   |
| UK  | 66                 | 0  | 0   |
| EPA   | 1                  | 112  | 39  |
| Pembina   | 134                | n/a  | n/a   |
| IMPOSSIBLE  | 2                  | 9  | 8   |
| Not impossible  | 0                  | 2  | 1   |
| Cost  | 3                  | 68   | 0   |
| Environment(al)   | 17                 | 613  | 21  |
| WORD COUNT:   | 66,500             | 337,441                                      | 54,145  |