### UNITED STATES PATENT AND TRADEMARK OFFICE

### BEFORE THE PATENT TRIAL AND APPEAL BOARD

AITHED WATER OXOTEMO

# FRONTIER WATER SYSTEMS, LLC Petitioner

V.

## GENERAL ELECTRIC CORPORATION Patent Owner

U.S. Patent No. 7,790,034 Filing Date: January 22, 2008 Issue Date: September 7, 2010

Title: Apparatus and Method for Treating FGD Blowdown or Similar Liquids

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Inter Partes Review Case No. IPR2017-01468

### **DECLARATION OF ADAM YOWELL**

Mail Stop "PATENT BOARD"

Patent Trial and Appeal Board U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, Virginia 22313-1450

- I, Adam K. Yowell, hereby declare the following:
- 1. I am lead counsel for Petitioner Frontier Water Systems, LLC.
- 2. A true and correct copy of U.S. Patent No. 7,790,034 B2 to Peeters, et al. ("US'034"), retrieved from the USPTO website, is attached hereto as Exhibit **FWS1001**.
- 3. A true and correct copy of the Certified File History for US'034 received from the USPTO, is attached hereto as Exhibit **FWS1002**.
- 4. A true and correct copy of the File History for Canada Patent Application CA2,517,322 ("CA'322"), retrieved from the Canadian Intellectual Propertfy Office Website, is attached hereto as Exhibit **FWS1003**.
- 5. A true and correct copy of the File History of Canada Patent Application CA2,615,945 ("CA'945), retrieved from the Canadian Intellectual Property Office Website, is attached hereto as Exhibit **FWS1004**.
- 6. A true and correct copy of Assignment Recordal History for US'034, retrieved from the USPTO website, is attached hereto as Exhibit **FWS1005**.
- 7. A true and correct copy of the Complaint in Frontier Water Systems v. General Electric Company, Case No. 2:17-cv-00261-PMW (D. Utah) April 6, 2017 (without exhibits) is attached hereto as Exhibit **FWS1006**.

- 8. A true and correct copy of Amended Complaint in Frontier Water

  Systems v. General Electric Company, Case No. 2:17-cv-00261-PMW (D. Utah) –

  April 13, 2017 (without exhibits) is attached hereto as Exhibit **FWS1007**.
- 9. A true and correct copy of the June 8, 2016 letters from General Electric Company to Frontier Water Systems is attached hereto as Exhibit **FWS1008**.
- 10. A true and correct copy of the Declaration of Dr. John H. Koon, including an Addendum with his CV and litigation experience, is attached hereto as Exhibit **FWS1009**.
- 11. A true and correct copy of a certified translation of JP-09-038694-A to Fukase, et al. ("Fukase"), also published under JPH0938694, including an affidavit attesting to the accuracy of the translation, is attached hereto as Exhibit **FWS1010**.
- 12. A true and correct copy of U.S. Patent No. 4,725,357 to Downing, et al. ("Downing"), retrieved from the USPTO website, is attached hereto as Exhibit **FWS1011**.
- 13. A true and correct copy of a certified translation of JP-01-304100-A to Katagawa, et al. ("Katagawa"), also published under JPH01304100, including

an affidavit attesting to the accuracy of the translation, is attached hereto as Exhibit **FWS1012**.

- 14. A true and correct copy of a certified translation of JP-10-249392-A to Okazoe, et al. ("Okazoe"), also published under JPH10249392, including an affidavit attesting to the accuracy of the translation, is attached hereto as Exhibit **FWS1013**.
- 15. A true and correct copy of CA Patent 1,274,925 to Downing, et al., retrieved from the Canadian Intellectual Property Office Website, is attached hereto as Exhibit **FWS1014**.
- 16. A true and correct copy of excerpts from *Theory and Practice of Water and Wastewater Treatment*, 1st Ed., John Wiley and Sons 1997, a wastewater treatment treatise by Ronald L. Droste, is attached hereto as Exhibit **FWS1015**.
- 17. A true and correct copy of excerpts from *Wastewater Engineering Treatment and Reuse*, 4th Ed., McGraw-Hill 2003, a wastewater treatment treatise by Metcalf & Eddy, is attached hereto as Exhibit **FWS1016**.
- 18. A true and correct copy of excerpts from *Water Quality Engineering* for *Practicing Engineers*, Barnes & Noble, Inc. 1970, a wastewater treatment treatise by W. Wesley Eckenfelder Jr., is attached hereto as Exhibit **FWS1017**.

- 19. A true and correct copy of U.S. Patent No. 5,989,428 to Goronszy ("Goronszy"), retrieved from the USPTO website, is attached hereto as Exhibit **FWS1018**.
- 20. A true and correct copy of the paper "Technologies and Potential Technologies for Removing Selenium from Process and Mine Wastewater" by Twidwell et al., retrieved from the URL

https://www.researchgate.net/profile/Larry\_Twidwell/publication/264856347\_Tec hnologies and potential\_technologies for removing arsenic from process and mine\_wastewater/links/53ff7daf0cf2194bc29a855d.pdf, is attached hereto as Exhibit FWS1019. This exhibit is provided to show that the same article, which was submitted by Patent Owner during prosecution of US'034 without date information, did predate US'034's earliest priority date. Other than the date information, this copy is identical to the one included in US'034's file history. FWS1002 pp. 716-727. The bibliographic data's title mistakenly references arsenic instead of selenium, but the article's actual title correctly references selenium.

21. A true and correct copy of the bibliographic data retrieved from Espacenet and the original Japanese language document used for the certified

translation for JP-09-038694-A to Fukase, et al. ("Fukase"), also published under

JPH0938694, is attached hereto as Exhibit FWS1020.

22. A true and correct copy of the bibliographic data retrieved from

Espacenet and the original Japanese language document used for the certified

translation for JP-01-304100-A to Katagawa, et al. ("Katagawa"), also published

under JPH01304100, is attached hereto as Exhibit FWS1021.

23. A true and correct copy of the bibliographic data retrieved from

Espacenet and the original Japanese language source document used for the

certified translation for JP-10-249392-A to Okazoe, et al. ("Okazoe"), also

published under JPH10249392, is attached hereto as Exhibit FWS1022.

I declare under penalty of perjury that the foregoing is true and correct.

DATED May 24, 2017.

/s/ Adam K. Yowell

Adam K. Yowell