



MEMORANDUM

Agenda Item 15(C)1

TO: Honorable Chairman Jose “Pepe” Diaz and
Members, Board of County Commissioners

DATE January 20, 2021

FROM: Honorable Harvey Ruvin, Clerk
Circuit and County Courts

SUBJECT: Appointment of Dr. Anna
R. Bernardo-Bricker to the
Environmental Quality
Control Board (EQCB)

Melissa Adames, Director
Clerk of the Board Division

It is recommended that the Board consider the appointment of Dr. Anna R. Bernardo-Bricker to the Environmental Quality Control Board (EQCB) to fill the vacancy created by the resignation of Dr. Luis Prieto-Portar.

The Miami-Dade County Code provides that the Board of County Commissioners appoint one (1) member to the Environmental Quality Control Board who is an engineer, possessing a PH.D in the fields of chemical or civil engineering. Dr. Bernardo-Bricker has a PH.D. in civil engineering and is recommended by Mayor Daniella Levine Cava as a qualified candidate to fill the existing vacancy.

Mayor Levine Cava's memorandum and the curriculum vitae for Dr. Bernardo-Bricker are attached for your review.

MA/slm
Attachment

Memorandum



Date: January 11, 2021

To: Harvey Ruvin
Clerk of the Board

From: Daniella Levine Cava *Daniella Levine Cava*
Mayor

Subject: Appointment to the Environmental Quality Control Board by the Board of County Commissioners

Please find attached the resume of Dr. Anna Bernardo-Bricker for consideration by the Board of County Commissioners (Board) for appointment to the Miami-Dade County Environmental Quality Control Board (EQCB). Members of the EQCB are appointed by the Board pursuant to Sec. 24-8 of the Code of Miami-Dade County (Code).

The EQCB is a quasi-judicial board created by Ordinance No. 69-30 that convenes monthly to hear cases for variances from, or time extensions to comply with, the requirements of the Environmental Protection Ordinance (Chapter 24 of the Code of Miami-Dade County) and appeals from decisions of the Director of the Division of Environmental Resources Management in the Department of Regulatory and Economic Resources. The membership, terms of office, organization, duties and powers, and procedures which govern the EQCB are set forth in Chapter 24 of the Code.

Dr. Luis Prieto-Portar gave notice of his retirement from the EQCB effective February 2020. Dr. Bernardo-Bricker's appointment would replace Dr. Prieto-Portar.

The EQCB is composed of five members appointed by the Board and serve staggered three-year terms. Quorum requires three members and a supermajority of four votes is required for cases within specific wellfield protection areas. Due to the highly scientific and technical nature of the matters which the EQCB reviews, the five members of the EQCB are required to have advanced scientific or engineering qualifications as follows:

- a) Two members shall be scientists possessing Ph.D. degrees in biology or marine biology;
- b) One member shall be a scientist possessing a Ph.D. degree in biochemistry or chemistry;
- c) Two members shall be licensed professional engineers in the field of chemical, civil or environmental engineering or in lieu of one licensed professional engineer, one member may have a Ph.D. degree in chemical, civil or environmental engineering or one member may be a licensed professional geologist.

The Board currently has two members that have been awarded a Ph.D. in biology, one member with a Ph.D. in biochemistry, and one member that is a Professional Engineer with a valid license issued by the Professional Board of Engineers in the State of Florida.

Dr. Anna Bernardo-Bricker has a Ph.D. in civil engineering, meets the qualifications to serve on the EQCB, and is recommended for appointment. Due to the high volume of cases heard by the EQCB, the appointment of Dr. Bernardo-Bricker is necessary to avoid possible delays.

Attachment

ANNA R. BERNARDO-BRICKER

PRESENT POSITION

Senior Instructor. Department of Civil and Environmental Engineering, Florida International University, 10155 West Flagler Street, EC 3746, Miami, FL 33174. Phone 305-632-3548. E-mail abernard@fiu.edu

EDUCATION

Degree	Institution	Field	Date
Ph.D.	Florida International University	Civil Engineering	12/2008
M.S.	University of Miami	Chemistry	05/1993
B.S. <i>Cum Laude</i>	Universidad Simón Bolívar, Caracas, Venezuela	Chemistry	01/1988

FULL-TIME ACADEMIC EXPERIENCE

Institution	Rank	Field	Dates (Month & Year)
Florida Int. University	Instructor	Environmental Engineering	08/2010 - present
Florida Int. University	Lecturer	Environmental Engineering	01/2009 - 01/2010
Florida Int. University	Graduate Assistant	Environmental Engineering	04/2004 - 12/2008
University of Miami	Research Associate	Atmospheric Science	05/1993 - 05/1996
University of Miami	Research Assistant	Chemistry	08/1989 - 12/1992

PART-TIME ACADEMIC EXPERIENCE

Institution	Rank	Field	Dates (Month & Year)
FIU	OPS	Environmental Eng.	02/2002 - 04/2004
Miami Dade College - Kendall	Adjunct Instructor	Community Education	01/1997 - 01/2003
Universidad Simón Bolívar	Research Assistant	Chemistry	08/1983 - 12/1986

NON-ACADEMIC EXPERIENCE

Place of Employment	Title	Dates
Maraven, Venezuelan Petroleum Co.	Products Specification Consultant	05/1988 - 08/1989
Topeco, Transformer Oil	Quality Control/Quality Assurance	09/1987 - 05/1988
Intevep, Venezuelan Petroleum Inst.	Internship and joint thesis at USB	04/1986 - 12/1987

EMPLOYMENT RECORD AT FIU

Rank	Dates (Month & Year)
Senior Instructor	08/2017-present
Instructor	08/2010-08/2017
Lecturer	01/2009-01/2010
Graduate Assistant	04/2004-12/2008
Researcher	02/2002-04/2004

PUBLICATIONS

PUBLICATIONS IN DISCIPLINE:

- Inanloo, B., Tansel, B., Jin, Xia, **Bernardo-Bricker, A., 2015.** Cargo Specific Air Dispersion and Impact Zone Analysis after Accidental Release of Hazardous Materials, *Environment Systems and Decisions* 35(3), 1-14.
- **Bernardo-Bricker, A.,** Singh, S. K., Trovó, A. G., Tang, W. Z., Tachiev, G., **2014.** Biodegradability Enhancement of Mature Landfill Leachate Using Fenton Process under Different COD Loading Factors. *Environmental Processes* 1:207-219.
- Subramanian, R., Donahue, N., **Bernardo-Bricker, A.,** Rogge, W.F., Robinson, A.L., **2007.** Insights into the primary–secondary and regional–local contributions to organic aerosol and PM_{2.5} mass in Pittsburgh, Pennsylvania, *Atmospheric Environment* 41 (35), 7414-7433.
- Subramanian, R., Donahue, N.M., **Bernardo-Bricker, A.,** Rogge, W.F., Robinson, A.L., **2006.** Contribution of motor vehicle emissions to organic carbon and fine particle mass in Pittsburgh, Pennsylvania: Effects of varying source profiles and seasonal trends in ambient marker concentrations. *Atmospheric Environment* 40(40), 8002-8019.
- Robinson, A.L., Subramanian, R., Donahue, N., **Bernardo-Bricker, A.,** Rogge, W.F., **2006.** Source apportionment of molecular markers and organic aerosol – 1. Polycyclic aromatic hydrocarbons and methodology for data visualization. *Environmental Science & Technology* 40(24), 7803-7810.
- Robinson, A.L., Subramanian, R., Donahue, N., **Bernardo-Bricker, A.,** Rogge, W.F., **2006.** Source apportionment of molecular markers and organic aerosol – 2. Biomass smoke. *Environmental Science & Technology* 40(24), 7811-7819.
- Robinson, A.L., Subramanian, R., Donahue, N., **Bernardo-Bricker, A.,** Rogge, W.F., **2006.** Source apportionment of molecular markers and organic aerosol – 3. Food cooking emissions. *Environmental Science & Technology* 40(24), 7820-7827.
- **Bernardo, A.,** Farmer, C., Milne, P., Riemer, D., Zika, R., Stoneking, C., **1995.** Validation of speciated nonmethane hydrocarbon compounds data collected during the 1992 Atlanta intensive as part of the Southern Oxidants Study (SOS). *Journal of the Air & Waste Management Association* 45, 591-603.
- **Bernardo, A.R.,** Lu, T., Cordova, E., Zhang, L., Gokel, G.W., Kaifer, A.E., **1994.** Host–guest complexation at the electrode/solution interface: the inclusion of an amphiphilic viologen guest by an amphiphilic calix[6]arene host. *Journal of the Chemical Society, Chemical Communications* 529-530.
- **Bernardo, A.R.,** Stoddart, J.F., Kaifer, A.E., **1992.** Cyclobis(paraquat-p-phenylene) as a synthetic receptor for electron-rich aromatic compounds: electrochemical and spectroscopic studies of neurotransmitter binding, *Journal of the American Chemical Society* 114, 10, 624-631.
- **Bernardo P., A.,** Zapata A.J., deOteiza deGuerrero, M., **1988.** Development of a method for the characterization of antioxidant packages for lubricants using HPLC, *Revista Técnica de Intevp* 8(1), 59-68.

PRESENTATIONS IN DICIPLINE:

- Inanloo, B., Tansel, B., Jin, X., **Bernardo Bricker, A.**, “Explosion Impact Analysis of Accidental Ammonia Releases during Transport,” TRB 93rd Annual Meeting, Washington, DC, January 12-16, **2014**.
- **Bernardo-Bricker, A.**, W.F. Rogge and J.M. Ondov, “Highly Time-Resolved Organic Compounds Concentrations of Primary and Secondary Nature during the Baltimore PM2.5-Supersite Study,” Platform Presentation at the 27th AAAR Annual Conference, Rosen Shingle Creek Orlando, Florida, October 20-24 **2008**.
- Sevimoglu, O., W.F. Rogge, **A. Bernardo-Bricker**, A. Robinson and R. Subramanian, “Fine Particulate Abrasion Products from Leaf Surfaces of Urban Plants: Comparison Between Los Angeles and Pittsburgh,” AAAR Specialty Conference: Particulate Matter, Supersites Program & Related Studies, Atlanta, GA, February 7–11, **2005**.
- **Bernardo-Bricker, A.**, W.F. Rogge, O. Sevimoglu, A. Robinson, E. Lipsky, and A. Grieshop, “Source Profiles for Organic PM2.5 for Diesel Trucks and Gasoline Vehicles Determined for the Squirrel Hill Tunnel in Pittsburgh, PA,” AAAR Specialty Conference: Particulate Matter, Supersites Program & Related Studies, Atlanta, GA, February 7–11, **2005**.
- Subramanian, R., A. Robinson, **A. Bernardo-Bricker**, and W.F. Rogge, “Organic Carbon Mass Balance and Source Apportionment of Primary Organic Carbon in the Pittsburgh Region Using Molecular Markers,” AAAR Specialty Conference: Particulate Matter, Supersites Program & Related Studies, Atlanta, GA, February 7–11, **2005**.
- Robinson, A.L., E.M. Lipsky, N. Pekney, W.F. Rogge, **A. Bernardo-Bricker**, and O. Sevimoglu, “Fine Particle Emission Profile for Road Dust in Pittsburgh, Pennsylvania,” AAAR Specialty Conference: Particulate Matter, Supersites Program & Related Studies, Atlanta, GA, February 7–11, **2005**.
- Weitkamp, E.A., E. Lipsky, A. Robinson, A. Polidori, B. Turpin, P. Pancras, J. Ondov, **A. Bernardo-Bricker**, O.R. Vasquez, and W.F. Rogge, “Fine Particle Emission Profile for a Large Coke Production,” AAAR Specialty Conference: Particulate Matter, Supersites Program & Related Studies, Atlanta, GA, February 7–11, **2005**.
- Rogge, W. F., **A. Bernardo-Bricker**, O. Sevimoglu, Y.C. Chang, J.M. Ondov, “Organic PM2.5 at the Baltimore PM Supersite: Diurnal Variations During Summer and Winter with a Time-Resolution of Three Hours,” Annual 23rd AAAR Conference, Atlanta, October 4-8, **2004**.
- Robinson, A.L., R. Subramanian, T. Gaydos, S.N. Pandis, **A. Bernardo-Bricker**, W.F. Rogge, A. Polidori, B.J. Turpin, L. Clarke, M. Hernandez, “Synthesis of Source Apportionment Estimates of Organic Aerosol in the Pittsburgh Region,” Platform Presentation at the 23rd AAAR Annual Conference, Atlanta, GA, October **2004**.
- Robinson, A.L., R. Subramanian, **A. Bernardo-Bricker**, and W.F. Rogge, “Source Apportionment of Primary Organic Carbon in the Pittsburgh Region using Molecular Markers and Different Receptor Models,” Platform Presentation at the AAAR 23rd Annual Conference, Atlanta, GA, October 4–8, **2004**.
- Weitkamp, E.A., K.E. Huff Hartz, A.M. Sage, A.L. Robinson, N.M. Donahue, W.F. Rogge, and **A. Bernardo-Bricker**, “Evaluation of the Oxidation Kinetics of Molecular Markers Used for Source Apportionment of Primary Organic Aerosol,” AAAR 23rd Annual Conference, Atlanta, GA, October 4–8, **2004**.
- Robinson, A.L., R. Subramanian, T. Gaydos, S.N. Pandis, **A. Bernardo-Bricker**, W.F. Rogge, A. Polidori, B.J. Turpin; L. Clarke, and M. Hernandez, “Synthesis of Source Apportionment Estimates of Organic Aerosol in the Pittsburgh Region,” AAAR 23rd Annual Conference, Atlanta, GA, October 4–8, **2004**.

- Robinson, A.L., R. Subramanian, J. Cabada, S.N. Pandis, **A. Bernardo-Bricker**, W.F. Rogge, “Source Apportionment of Primary Organic PM_{2.5} in the Pittsburgh Region,” Proceedings of the AAAR 22nd Annual Conference, Anaheim CA., October 20-24, **2003**.
- Rogge, W.F., O. Sevimoglu, **A. Bernardo-Bricker**, Y. Ch. Chang, D. H., “Organic PM_{2.5} at the Baltimore PM Supersite: Diurnal Variation with a Resolution of Three Hours,” AAAR 21st Annual Conference, Charlotte, NC, October 7-11, **2002**.
- Milne, P., **A. Bernardo**, D. Riemer, R. Zika, “Assessing the importance of polar VOCs as ozone precursors: observations from the SCION sites,” U.S./ German/ European workshop on the photochemical Ozone Problem and its Control in Urban, Regional and Global Scale, North Charleston, NC, June 13-17, **1994**.
- **Bernardo, A.**, C. Farmer, P. Milne, D. Riemer, C. Stoneking, R. Zika, Poster and Proceedings of the A&WMA International Conference, San Diego, CA, November 22-28, **1993**.
- **Bernardo, A.R.**, T. Lu, A.E. Kaifer, “Cyclobis(paraquat-p-phenylene): a receptor for electron-rich aromatic compounds”. Presentation at Regional ACS meeting, Orlando, Florida, May **1993**.

UNIVERSITY AND PROFESSIONAL SERVICE

- Spring 2013 to present: Member of CEE department Undergraduate Program Advising Committee (UPAC)
- February-March, 2017 and February-March, 2013: Mentored students participating in the Environmental Competition at Southeast ASCE Student Conference –Students won both competitions
- Fall 2012 and Spring 2013: Advised students and coordinated the Environmental Competition for the 2013 ASCE Southeast Student Conference co-hosted by UM and FIU

COURSES DEVELOPED AT TAUGHT AT FIU:

EGN 4070	Eng. for Global Sustainability and Env. Protection-GL (Spring 2014 – present)
ENV 5105	Air Quality Management (Spring 2011– present)
ENV 4101	Fundamentals of Air Pollution Engineering (Spring 2011– present)
ENV 5104	Indoor Air Quality (Fall 2010 – present)
ENV 4005L	Environmental Laboratory II (Fall 2010 – present)
ENV 3001L	Environmental Laboratory I (Fall 2010 – present)
ENV 3001	Introduction to Environmental Engineering (Fall 2011 and Spring 2012)
CGN 2420	Computer Tools for Engineers (Spring 2011, Fall 2011, and Spring 2012)
EGN 1110C	Engineering Drawing (Fall 2010)

OTHER INSTRUCTIONAL AND ADMINISTRATION ACTIVITIES AT FIU:

Fall 2010 – present	Environmental Engineering Laboratory Coordinator (12% to 30%)
Fall 2020	Eng. for Global Sustainability and Env. Protection-GL (HYBRID course)
Fall 2016	ENV 5104 Indoor Air Quality Online (online course)
Fall 2013 – 02/2014	M.S. in Environmental Engineering-Online (Proposal approved FS 4/8/2014)
Spring 2013	Emergency Response and Safety Plan for the FIU CEE Environmental & Water Resources Engineering Unit Laboratories