

MIAMI BEACH

OFFICE OF THE CITY MANAGER

NO. LTC # **373-2016**

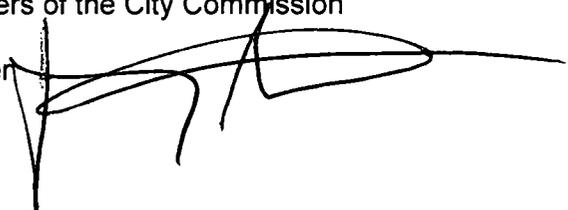
LETTER TO COMMISSION

TO: Mayor Philip Levine and Members of the City Commission

FROM: Jimmy L. Morales, City Manager

DATE: September 12, 2016

SUBJECT: Use of Naled in Miami Beach

A handwritten signature in black ink, appearing to be 'Jimmy L. Morales', is written over the 'FROM' line and extends into the 'DATE' and 'SUBJECT' lines.

The purpose of this Letter to Commission is to present an expert opinion on the subject of Naled use which was obtained by Commissioner Ricky Arriola. The Commissioner had watched an interview on CNN with Dr. Barry Ryan, a professor and researcher at Emory University, regarding the use of Naled and his office reached out to Dr. Ryan to see if he would be willing to share his thoughts with City officials. Attached please find (i) the email sent by Dr. Ryan with his thoughts, and (ii) Dr. Ryan's professional biography. This LTC can be included as part of the discussion at the City Commission on September 14, 2016.

On 9/12/16, 10:12 AM, "Ryan, P Barry" <bryan@emory.edu> wrote:

>

>>Mr. Chiroles-

>>

>>As I pointed out in the CNN interview, there are risks associated with spraying and risks associated with not spraying.

>>

>>Exposure to Naled comes with risks. It is a neurotoxin- that is how it kills mosquitoes- and it can have adverse impacts on the developing fetus and young children. The effects can include neurodevelopmental delay, behavioral problems such as ADHD, and similar issues. However, the effects noted generally are from longer-term exposure. Mosquitoes, and other insects, are much more susceptible to the effects of aerial spraying of Naled than are humans. The spraying of the insecticide four times at this early morning hour should result in very low exposure to the human population as a whole, particularly to pregnant women and young children. While, again, not without risk, the risk should be low.

>>

>>The risk of contracting Zika from mosquitoes in Miami is also low. Zika is present in only by one type of mosquito, and the transmittal requires a bite by an infected mosquito. The effects are most evident of the bite occurs during the early part of pregnancy, generally the first trimester. The percentage of mosquitoes that can carry Zika is low, and the likelihood of biting bit by one that is infected is lower still. However, the effects are devastating, including the microcephaly as the worst outcome. Further, other potential health effects have been noted, for example, Guillain-Barre syndrome, with evidence mounting that other effects may be occurring. Further, there are reports of sexual transmission of the virus from an infected individual to an uninfected one. See:

<http://www.cdc.gov/zika/healtheffects/index.html> for further information.

>>

>>Naled also has adverse effects on beneficial insects such has bees, etc., and can get into the environment due to its modest solubility. Protection of bees, in particular, is important. One should realize, however, that the environmental lifetime of Naled is quite short. Within a few hours, the concentration measureable in spray areas is reduced to background due, primarily, to the effects of sunlight on Naled itself.

>>

>>The decision to use Naled to control Zika-carrying mosquitoes is a complicated one both scientifically and politically. My opinion is that the potential consequences of a Zika infection in a pregnant woman are so great that spraying is the better alternative, especially if done only a few times and at times when exposure is likely to be limited. Others may offer a different considered opinion. The benefit-risk tradeoff is one that must be considered. I urge you and your colleagues to consider both sides of the issue and choose the best plan of attack given you population.

>>

>>You may find USEPA's thought on this matter: <https://www.epa.gov/mosquitocontrol/naled-mosquito-control> . While this particular piece is written for a general population, more detailed analyses can be found by following the links in this USEPA piece.

>>

>>Barry Ryan

>>

>>P. Barry Ryan, Ph.D.

>>Professor, Exposure Science and Environmental Chemistry Department of

>>Environmental Health Rollins School of Public Health of Emory

>>University Professor, Department of Chemistry, Emory University

>>1518 Clifton Road, Rm 2041, MS 1518-002-2BB Atlanta, Georgia 30322

>>404.727.3826 (Voice) 404.727.8744 (Fax)

>>bryan@emory.edu

>><http://www.sph.emory.edu/faculty/BRYAN>

>>

Biography

P. Barry Ryan, PhD, MS, holds joint appointments as Professor in the Department of Environmental Health at Rollins School of Public Health and in the Department of Chemistry at Emory University. He is an associate member of the Cancer Prevention and Control research program at Winship Cancer Institute. He is also a member of the International Society of Exposure Science.

Research

Dr. Ryan's research focus includes environmental exposure assessment and the impact it has upon human health. Numerous environmental contaminants are known human carcinogens. His team studies exposures to such compounds and the likely health outcomes. He began his work over 30 years ago with an initial focus on air pollution exposures.

Dr. Ryan is currently collaborating with Winship investigators to study exposure to volatile organic compounds and its relationship to Non-Hodgkins Lymphoma.

- Dr. Ryan's credentials can be found at <https://www.sph.emory.edu/faculty/profile/#BRYAN>
 - WORK
 - Professor at Emory University (Rollins School of Public Health)
 - EDUCATION
 - BS, 1973, UNIVERSITY OF MASSACHUSETTS
 - MS, 1975, UNIVERSITY OF CHICAGO
 - PHD, 1979, WESLEYAN UNIVERSITY
 - COURSES TAUGHT
 - EH 540: Environmental Hazards I
 - EHS 777R: Prob Bsd Learning Env Hlth Sci
 - AFFILIATIONS & ACTIVITIES
 - Professor, Department of Chemistry, Emory University, Jointly Appointed
 - Member, International Society for Exposure Analysis
 - Member, Board of Scientific Counselors, United States Environmental Protection Agency Office of Research and Development 2006 – 2010
 - Ad Hoc Member, Human Subjects Review Board, United States Environmental Protection Agency 2007
 - Member, Federal Advisory Committee for the National Children's Study 2003 – 2007
 - Ad Hoc Member, Science Advisory Panel, United States Environmental Protection Agency, FIFRA 2004 – 2006
- Dr. Ryan has published 161 papers, and has been cited 3,981 times. More details can be found at https://www.researchgate.net/profile/P_Ryan