Statement from the NASA Office of the Chief Health and Medical Officer: Use of Electronic-Cigarettes at the Worksite

Purpose: In support of the tobacco free workplace policy and the Agency's smoking cessation program, this guidance document focuses on the following shared goals:

a. Preventing tobacco use among the workforce;

b. Promoting tobacco use cessation;

c. Eliminating exposure to secondhand smoke;

d. Educating about tobacco-related health problems; and

e. Communicating relevant and timely health information.

Introduction: Tobacco use has known health hazards for the smoker and those exposed through second and thirdhand smoke. The health and welfare of each employee is a concern of the Office of the Chief Health and Medical Officer (OCHMO) and the Agency's senior leadership. On July 22, 2009, the U.S. Food and Drug Administration (FDA) announced that a laboratory analysis of electronic cigarette (e-cigarettes) samples had found that they contain carcinogens and toxic chemicals such as diethylene glycol, an ingredient used in antifreeze.

Electronic cigarettes are battery-operated devices that generally contain cartridges filled with nicotine, flavor, and other chemicals. E-cigarettes turn liquid nicotine, which is highly addictive, and other chemicals into a vapor that is inhaled by the user. These products do not contain any health warnings comparable to FDA-approved nicotine replacement products or conventional cigarettes.

These products have not been submitted to the FDA for evaluation or approval. At this time, the FDA has performed limited testing on e-cigarettes and has no way of knowing the levels of nicotine or the amounts or kinds of other chemicals that the various brands of these products deliver to the user (through inhalation of vapor) and others (through inhalation of vapor exhaled by e-cigarette users).

The FDA's Division of Pharmaceutical Analysis analyzed the ingredients in a small sample of cartridges from two leading brands of electronic cigarettes. In one sample, the FDA's analyses detected diethylene glycol and in several other samples, the FDA analyses detected carcinogens, including nitrosamines. These tests indicate that these products contain detectable levels of known carcinogens and toxic chemicals to which users and others could potentially be exposed.

Statement:

There is almost nothing known about the health hazards of second hand exposure to the vapor from e-cigarettes. We know the vapor contains nicotine and trace amounts (likely far less than in tobacco smoke) of tobacco-related carcinogens. . There are currently no studies looking at the health effects of the glycol-based vapor when inhaled. Due to lack of scientific data and for reasons of safety, the OCHMO recommends the use of e-cigarettes be subject to the same policies and limitations as those applied to tobacco products.

References:
http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm173222.htm
Lowell C. Dale, MD. Medical Director, Mayo Clinic Tobacco Quitline, Associate Professor of Medicine, Consultant, Community Internal Medicine, Mayo Clinic—personal communication

02/09/2011