

November 17, 2010

State Representative Gary Aubuchon
3501 Del Prado Boulevard, Suite 305
Cape Coral, Florida 33904

Subject: Placement on the Lee County Delegation Meeting's Agenda and
Transmittal of Supporting Documentation

Dear Representative Aubuchon:

As you requested in your electronic notice dated November 1, 2010, please accept this letter as our official request to be placed on the subject agenda. Interim Police Chief Jay Murphy will be using this opportunity to help raise awareness with regard to a new drug that is raising many concerns. Sheriff Scott may also participate in this presentation.

Please contact me if you have any questions or concerns. I can be reached at (239) 574-0446. Thank you.

Sincerely,



Terri Hall
Legislative Coordinator

Th(Local Delegation Ltr 11/17/10)

Enclosures: White Paper – The New Synthetic Marijuana

C: Jay Murphy, Interim Police Chief

K2 and Spice: The New Synthetic Marijuana?

Prepared by George Ellis
10/31/10

For the past several years, employers have expressed a growing concern about an easily available group of over-the-counter products rumored to be “legal” marijuana and having brand names like K2, Spice, and dozens of other exotic names. Use of these types of products had already been a problem in Europe several years before they started becoming known in the U.S.

K2, Spice, and the other products of this type are freely sold on the internet, in “head” or “smoke” shops, and in certain other counter-culture locations. They are commonly sold as incense (or some other false claim) and labeled not for human consumption, but when smoked are supposed to mimic the high of marijuana.

Although marijuana-like, these products do not actually contain THC (delta-9-tetrahydrocannabinol, the principal psychoactive compound found in marijuana), and are not in any way derived from the plant product.

What are Some of the Common “Brand” Names? K2 Summit, K2 Blonde, Spice Diamond, Spice Gold, Yucatan Fire, Mojo, Smoke XXX, Smoke Plus, Aura Mystic, Gonjah, and dozens of other names.

How Prevalent is the Use of These Products Among Employees? There is no reliable data on the prevalence of these products in workplace populations. There is also no evidence that the rates of use are significant with employees. However, these products should be treated as drugs of interest by employers if their popularity increases with working populations due the difficulty in their detection.

Where are These Products Being Produced? The source of K2, Spice, and the other similar products appears to be primarily China, India, and Korea. However, there are reports of underground entrepreneurs in the U.S. buying or producing raw synthetic cannabinoids and creating their own branded products.

What does it Look Like? Visually, the products appear as plant or herbal material of various types. They are most often sold in branded 2”x3” translucent or clear packets, usually in gram sizes (a gram is 1/32 of an ounce).

How Much Does it Cost? These products are usually considered expensive in comparison to marijuana, often \$20-\$35 when purchasing single grams.

What is it in These Products That Causes People to Get High? These products are made up of various benign plant or herbal material combinations sprayed with one or more synthetic cannabinoids (the only intoxicating ingredients(s) present). There is often significant variability in the concentration of synthetic cannabinoids and in the specific cannabinoids found, which can vary noticeably not only between brands but between different packages of the same brand.

What is the Relationship Between Synthetic Cannabinoids and Marijuana? There are 66 different naturally occurring cannabinoids in the marijuana plant, some of which are psychoactive (such as THC) and contribute to the intoxicating properties which cause the marijuana high. Synthetic cannabinoids have been created chemically in laboratories for the last 40 years for legitimate scientific research. They are not derived from the marijuana plant. Many have been used as pharmacological research tools in animal experiments. Many were never intended for use with humans.

In the case of the synthetic cannabinoid compounds found in these products, their formulas were hijacked from published reports in the scientific literature. Some of the compounds are pharmacologically similar to plant cannabinoids, some are chemically similar, and some are both. Regardless, they are not marijuana.

For the most part, the synthetic cannabinoids employed in these products don't even have official names beyond their research identification in the professional literature. The cannabinoids in these products usually include one or more of the following: JWH-018; JWH-073; CP47,497; CP47,497-C8; HU-210, JWH-250; JWH-398; others. The initials are often tied to the researcher that created them (JWH is Dr. John W. Huffman of Clemson University, for example)

What is the High Like and Long Does it Last? There is plenty of debate on the internet on what the high is like and how long it lasts. In addition to normal individual variability and drug experience, this is likely due in large part to which synthetic cannabinoids (or combination of synthetics) are present and in what concentration. Some users even report "hot spots" of concentrated effect, no doubt due to an inconsistent spraying of the intoxicant(s) onto the plant material.

Generally, the principal part of the high is regulated to last for 1-2 hours (not too dissimilar to marijuana), and is often described as a relaxed intoxication with the more intense effects happening early and then tapering off. The drug also appears to provide an acceptable level of intoxication, but no-one describes it as qualitatively equal to or better than marijuana.

In the workplace, depending on the concentration of synthetic cannabinoids present in the drug, the risk to safety is likely no less (and probably no more) than someone who has used marijuana within the same timeframe. Due to the lack of quality control in the

products' manufacture, however, employers should be alert to the possibility of unpredicted adverse effects when the drug has been recently used.

What Adverse Effects Been Reported? There is virtually no current data on the rate of adverse effects in users. Adverse effects have been anecdotally reported, however, and include agitation, anxiety, tremors, seizures, tachycardia, increased blood pressure, numbness, and tingling in the extremities.

It is likely that the higher the concentration of synthetic cannabinoids, the higher the risk of a problem for the user. In addition, there is no standardized protocol for emergency room reporting of these drugs, likely in part due to unfamiliarity, misdiagnosis, and the difficulty of detection in toxicological screening.

There is no information on the long term effects of using these products.

Are These Products Detectable in Normal Drug Tests? Since these products do not contain marijuana, and also do not contain any compounds found in the marijuana plant, they are not detectable in normal drug tests. Several laboratories currently offer specialty analyses for some of the specific synthetics, such as the JWH-018 cannabinoid, but testing is not common at this time and relatively expensive. A single test to detect all of the various synthetic cannabinoids is never going to be likely.

Are There State and Federal Initiatives to Control These Products? As of the date of this report (October 2010), a number of states have either banned or criminalized their possession and/or use. States with bans include Alabama, Arkansas, Georgia, Hawaii, Iowa, Illinois, Kansas, Kentucky, Louisiana, Mississippi, Missouri, North Dakota, and Tennessee. A number of other states have legislation pending.

Federal response to these products has not been as rapid. Only one of the synthetics, the HU-210 cannabinoid, has so far been categorized as a Schedule I drug under the Federal Controlled Substances Act (CSA). The CSA focuses on compounds that have the potential for abuse and dependence in humans. Schedule I means that a compound is illegal to manufacture, distribute, dispense, or possess under Federal law.

The remaining synthetic cannabinoids found in these products (primarily the JWH and CP compounds) have not yet been formally scheduled or even addressed under the CSA. Therefore, their use remains technically "legal" under Federal law.

The good news is that the Drug Enforcement Administration (DEA) announced in October 2010 at the Society of Forensic Toxicologists annual meeting that most of the yet unscheduled synthetic cannabinoids found in these products will receive emergency scheduling within the next few weeks or months. However, Federal scheduling under the CSA and additional state bans of individual synthetic cannabinoids doesn't

guarantee that the underground manufacturers won't move to unscheduled synthetic cannabinoid formulations or other intoxicating compounds and still produce and distribute new versions of their products.