October 20, 2015

To:      All WSU Research Labs
From:  Walter Pociask, Associate Director, OEHS
Re:     Annual Campus-Wide Disposal of Controlled Substances

The Office of Environmental Health and Safety (OEHS) performs routine disposal of biomedical, radiological, and chemical wastes on behalf of the University. During several routine hazardous chemical waste disposal operations, OEHS has occasionally found several specialized use and restricted possession substances, which need to be properly disposed. The United States Drug Enforcement Agency (“DEA”) refers to these materials as “controlled substances”, and severely restricts how they are obtained, used, stored, and disposed.

Due to the nature of these materials, the disposal protocols associated with handling these no-longer-wanted materials are complicated. Because many recent disposal requests sent to OEHS have included these materials, we are again providing a pick-up and disposal program, to be available to all WSU departments, which will attempt to process controlled substances in one combined annual shipment, rather than several smaller shipments. This approach will hopefully save the University a significant amount of money, while still satisfying the DEA’s stringent requirements.

In order for OEHS to deal with these materials, we are requesting that you review your chemical storage areas, to see if any controlled substances are present. (These chemicals may have never been yours: persons occupying the lab prior to you may have stashed them away in a corner or drawer, and forgotten about them.) We request that you do a thorough check, and if you do find these materials, send an inventory of them to me, via e-mail (an9291@wayne.edu). Please comply with this request no later than November 10, 2015. Use the format provided.

I have included a list of several controlled substances names, along with a brief explanation of why they are so classified, with this letter. I recognize that this list is long, but it should make it easier for persons who find possible candidates for disposal to more positively identify controlled substances. *This list is not absolute and not all-inclusive*. If you find a chemical you do not want in your lab, for any reason, please contact me, and we will figure out how to best handle it. The OEHS website ([www.oehs.wayne.edu](http://www.oehs.wayne.edu)) is a good place to begin your disposal process: call if we may be of assistance in showing you how to request biomedical, radiological, and chemical waste disposal. (Unidentified chemicals will not be considered for disposal) Any Class I drugs, (which are generally illegal to possess), will be considered for removal if you wish.
REQUEST TO DISPOSE OF CONTROLLED SUBSTANCES

Please include the following information in your response to me:

- **Building name and room**
- **Person doing the inventory:**
  - name,
  - phone number, and
  - e-mail address
- **A scanned copy of your DEA Registration number**
- **Schedule II Drugs:**
  - Drug name (in English, or using trade name)
  - Type of container (bottle, ampule, vial, etc.)
  - Volume of the container, with estimated quantity remaining in it
- **Schedule III Drugs:**
  - Drug name (in English, or using trade name)
  - Type of container (bottle, ampule, vial, etc.)
  - Volume of the container, with estimated quantity remaining in it
- **Schedule IV Drugs:**
  - Drug name (in English, or using trade name)
  - Type of container (bottle, ampule, vial, etc.)
  - Volume of the container, with estimated quantity remaining in it
- **Schedule V Drugs:**
  - Drug name (in English, or using trade name)
  - Type of container (bottle, ampule, vial, etc.)
  - Volume of the container, with estimated quantity remaining in it

We will advise you as to what actions OEHS will be taking, to relieve you of the substances in your possession, sometime after November 22nd, 2015. We must assume that no response received from you is an indication that you have done your survey, and you have found no controlled substances requiring disposal, in your area of responsibility.

Thank you for your attention to this important matter.
Schedule I Controlled Substances

(A) The drug or other substance has a high potential for abuse.

(B) The drug or other substance has no currently accepted medical use in treatment in the United States.

(C) There is a lack of accepted safety for use of the drug or other substance under medical supervision." No prescriptions may be written for Schedule I substances, and such substances are subject to production quotas by the DEA.

Under the DEA's interpretation, a drug does not necessarily have to have the same abuse potential as heroin or cocaine to merit placement in Schedule I (in fact, cocaine is currently a Schedule II drug due to limited medical use):

When it comes to a drug that is currently listed in schedule I, if it is undisputed that such drug has no currently accepted medical use in treatment in the United States and a lack of accepted safety for use under medical supervision, and it is further undisputed that the drug has at least some potential for abuse sufficient to warrant control, the drug must remain in schedule I. In such circumstances, placement of the drug in schedules II through V would not meet the criterion of "a currently accepted medical use in treatment in the United States." 21 USC 812(b).

Sentences for first-time, non-violent offenders convicted of trafficking in Schedule I drugs can easily turn into *de facto* life sentences when multiple sales are prosecuted in one proceeding. |Sentences for violent offenders are much higher.

Drugs in this schedule include:

- **gamma-Hydroxybutyric acid** (GHB), which has been used as a general anaesthetic with minimal side-effects and controlled action but a limited safe dosage range. It was placed in Schedule I in March 2000 after widespread recreational use. Uniquely, this drug is also listed in Schedule III for limited uses, under the trademark Xyrem;

- **12-Methoxyibogamine** (Ibogaine), which has been used in opiate addiction treatment and psychotherapy.

- **Cannabis** (includes cannabinoids found in marijuana, hashish, and hashish oil).

- **Dimethyltryptamine** (DMT), which is found in small quantities in the human brain but is pharmacologically active in larger quantities.

- **Heroin** (Diacetylmorphine), which is used in some European countries as a potent pain reliever in terminal cancer patients, and as second option, after morphine. (It is about twice as potent, by weight, as morphine.)
• Other strong opiates and opioids used in many other countries, or even in the USA in previous decades for palliation of moderate to severe pain such as nicomorphine (Vilan), dextromoramid (Palfium), ketobemidone (Ketalgin), dihydromorphine (Paramorfan), piritramide (Dipidolor), diacetyldihydomorphine (Paralaudin), dipipanone (Wellconal), phenadoxone (Heptalgin) and many others.

• Weak opioids used for relief of moderate pain, diarrhea, and coughing such as benzylmorphine (Peronine), nicocodeine (Tusscodin), thebacon, tilidine (Valoron), meptazinol (Meptid), propiram (Algeril), acetyldihydrocodeine and others.

• Pholcodine, a weak opioid cough suppressant with negligible abuse potential which is available over-the-counter in many other countries.

• MDMA (3,4-methylenedioxymethamphetamine, Ecstasy), which continues to be used medically, notably in the treatment of post-traumatic stress disorder (PTSD) (approved by the FDA for PTSD use in 2001). The medical community originally agreed upon placing it as a Schedule III substance, but the government denied this suggestion, despite two court rulings by the DEA's administrative law judge that placing MDMA in Schedule I was illegal.

• Psilocybin, the active ingredient in psychedelic mushrooms;

• 5-MeO-DIPT (Foxy / Foxy Methoxy / 5-methoxy-N,N-diisopropyltryptamine)

• Lysergic acid diethylamide (LSD / Acid)

• Peyote, a cactus growing in nature primarily in northeastern Mexico; one of the few plants specifically scheduled, with a narrow exception to its illegal status for religious use by members of the Native American Church;

• Mescaline, the main psychoactive ingredients of the peyote, san pedro, and Peruvian torch cacti;

• Methaqualone (Quaalude, Sopor, Mandrax), a sedative that was previously used for similar purposes as barbiturates, until it was rescheduled;

• 2,5-dimethoxy-4-methylamphetamine (STP / DOM), a psychotropic hallucinogen that rose to prominence in 1967 in San Francisco when it appeared in pill form (known as "STP", in doses as high as four times the amounts previously considered "safe") on the black market;

• Tetrahydrogestrinone (THG / "The Clear"), an anabolic progestogenic androgen first created by the BALCO athletic supplement company that was the drug of choice for athletes using steroids due to its "invisibility" in standard steroid screening tests until 2003, when Trevor Graham provided a sample to the United States Anti-Doping Agency for use in creating a screening test; banned by the FDA for medical use and added to Schedule I in 2003;
• **2C-T-7** (Blue Mystic / T7), a psychotropic *entheogen*;

• **2C-B** (Nexus / Bees / Venus / Bromo Mescaline), a psychotropic hallucinogen and aphrodisiac;

• **Cathinone** (β-ketoamphetamine), a *monoamine alkaloid* found in the shrub *Catha edulis* (Khat);

• **AMT** (alpha-methyltryptamine), an anti-depressant from the *tryptamine* family with hallucinogenic properties; first developed in the *Soviet Union* and marketed under the brand name Indopan;

• **Bufotenin** (5-OH-DMT), a naturally-occurring *tryptamine* with hallucinogenic and aphrodisiac properties; named for the *Bufo* genus of toads whose venom contains the chemical;

• **Benzylpiperazine** (BZP), a synthetic drug with a slight resemblance to MDMA and stimulant effects 10 times less potent than amphetamine (though it was mistakenly said to be 10 times more addictive than amphetamine at the drug's schedule hearing).

• **DXO**, active metabolite of Dextromethorphan, NMDA antagonist.

• Controlled Substance Analogs intended for human consumption (as defined by the *Federal Analog Act*).
Schedule II Controlled Substances

(A) The drug or other substance has a high potential for abuse.

(B) The drug or other substance has a currently accepted medical use in treatment in the United States or a currently accepted medical use with severe restrictions.

(C) Abuse of the drug or other substances may lead to severe psychological or physical dependence."

These substances are only available by prescription, and distribution is carefully controlled and monitored by the DEA. Oral prescriptions are allowed, except that the prescription is limited to 30 days worth of doses, although exceptions are made for cancer patients, burn victims, etc. and oral prescriptions for schedule II drugs must be confirmed in writing within 3 days. No refills are allowed. The Drug Enforcement Administration (DEA) is finalizing a Notice of Proposed Rulemaking published on September 6, 2006 (71 FR 52724). In that document, DEA proposed to amend its regulations to allow practitioners to provide individual patients with multiple prescriptions, to be filled sequentially, for the same schedule II controlled substance, with such multiple prescriptions having the combined effect of allowing a patient to receive over time up to a 90-day supply of that controlled substance. This went into effect December 19, 2007. Also, Schedule II substances are subject to production quotas set by the DEA. Some of these drugs (notably Fentanyl in non-transdermal form) are never given to patients for home use, but are administered only by a licensed healthcare provider. Fentanyl can be given to patients for home use in Duragesic transdermal therapeutic system patch form. The prescription must be hand delivered within 7 days to the pharmacy and the prescription is limited to 30 days worth of doses.

These drugs vary in potency: for example Fentanyl is about 80 times as potent as morphine. (Heroin is only twice as potent.)

Drugs in this schedule include:

- **Cocaine** (used as a [topical anesthetic](https://en.wikipedia.org/wiki/Cocaine#Medical_use));
- **Methylphenidate** (Ritalin and Concerta) & **Dexmethylphenidate** (Focalin) (used in treatment of [Attention Deficit Disorder](https://en.wikipedia.org/wiki/Attention-deficit/hyperactivity_disorder));
- **Opium** and **opium tincture (laudanum)**, which is used as a potent [antidiarrheal](https://en.wikipedia.org/wiki/Antidiarrheal剤);
- **Methadone** (used in treatment of [heroin](https://en.wikipedia.org/wiki/Opioid_addiction) addiction as well as for treatment of extreme chronic pain)
- **Oxycodone** (semi-synthetic opioid; active ingredient in [Percocet, OxyContin, and Percodan](https://en.wikipedia.org/wiki/Oxycodone));
- **Fentanyl** and Most other pure strong opioid agonists, *i.e.* levorphanol, opium, or oxymorphone;
• **Morphine**

• **Concerta**

• **Amphetamine** Salts (racemic) Under brand name **Adderall**

• **Dextroamphetamine** (Dexedrine) **Dextromethamphetamine** (Desoxyn)

• **Hydromorphone** (Dilaudid)

• Pure **codeine** and any drug for non-parenteral administration containing the equivalent of more than 90 mg of codeine per dosage unit.;

• Pure **hydrocodone** and any drug for non-parenteral administration containing no other active ingredients or more than 15 mg per dosage unit.;

• **Secobarbital** (Seconal)

• **Pethidine** (USAN: Meperidine; Demerol)

• **Phencyclidine** (PCP);

• Short-acting **barbiturates**, such as **pentobarbital**, (Nembutal (now out of production));

• **Amphetamines** were originally placed on Schedule III, but were moved to Schedule II in 1971. Injectable **methamphetamine** has always been on Schedule II;

• **Nabilone** (Cesamet) A synthetic cannabinoid. An analogue to **dronabinol** (Marinol) which is a Schedule III drug.
Schedule III Controlled Substances

(A) The drug or other substance has a potential for abuse less than the drugs or other substances in schedules I and II.

(B) The drug or other substance has a currently accepted medical use in treatment in the United States.

(C) Abuse of the drug or other substance may lead to moderate or low physical dependence or high psychological dependence.” These drugs are available only by prescription, though control of wholesale distribution is somewhat less stringent than Schedule II drugs. Prescriptions for Schedule III drugs may be refilled up to five times within a six month period.

Drugs in this schedule include:

- **Anabolic steroids** (including prohormones such as androstenedione);
- Intermediate-acting barbiturates, such as talbutal or butalbital;
- **Buprenorphine**;
- **Dihydrocodeine** single-ingredient drugs and the pure drug itself.
- **Ketamine**, a drug originally developed as a milder substitute for PCP (mainly to use as a human anesthetic) but has since become popular as a veterinary and pediatric anesthetic;
- **Xyrem**, a preparation of GHB used to treat narcolepsy. Xyrem is in Schedule III but with a restricted distribution system. All other forms of GHB are in Schedule I;
- **Hydrocodone / codeine**, when compounded with an NSAID (e.g. Vicoprofen, when compounded with ibuprofen) or with acetaminophen (paracetamol) (e.g. Vicodin / Tylenol 3);
- **Marinol**, a synthetic form of Tetrahydrocannabinol (THC) used to treat nausea and vomiting caused by chemotherapy, as well as appetite loss caused by AIDS;
- **Paregoric**, an antidiarrheal and anti-tussive, which contains opium combined with camphor (which makes it less addiction-prone than laudanum, which is in Schedule II;
- **LSA**, listed as a sedative but considered by most experts to be psychedelic. A pre-cursor to and chemical relative of LSD. LSA occurs naturally in Rivea corymbosa, morning glory seeds, and Hawaiian baby woodrose seeds. LSA is not biosynthesized by the ergot fungus (Claviceps purpurea), but can be biosynthesized by other Claviceps species. LSA can be present as an artifact in extracts of ergot.
Schedule IV Controlled Substances

(A) The drug or other substance has a low potential for abuse relative to the drugs or other substances in schedule III.

(B) The drug or other substance has a currently accepted medical use in treatment in the United States.

(C) Abuse of the drug or other substance may lead to limited physical dependence or psychological dependence relative to the drugs or other substances in schedule III. Control measures are similar to Schedule III. Prescriptions for Schedule IV drugs may be refilled up to five times within a six month period.

Drugs in this schedule include:

- Benzodiazepines, such as alprazolam (Xanax), chlordiazepoxide (Librium), diazepam (Valium)
  - temazepam (Restoril) (Note that some states require specially coded prescriptions for temazepam)
  - flunitrazepam (Rohypnol) (Note that flunitrazepam is not used medically in the United States);
- The benzodiazepine-like "Z-drugs": Zolpidem (Ambien), Zopiclone, Eszopiclone, and Zaleplon;
- Dextropropoxyphene (Doloxene) and propoxyphene (sold in the U.S. as Darvocet);
- Long-acting barbiturates such as phenobarbital;
- Some partial agonist opioid analgesics, such as pentazocine (Talwin);
- The stimulant-like drug modafinil (sold in the U.S. as Provigil);
- Antidiarrheal drugs, such as difenoxin, when combined with atropine (Motofen) (difenoxin is 2-3 times more potent then diphenoxylate, the active ingredient in Lomotil, which is in Schedule V);
Schedule V Controlled Substances

(A) The drug or other substance has a low potential for abuse relative to the drugs or other substances in schedule IV.

(B) The drug or other substance has a currently accepted medical use in treatment in the United States.

(C) Abuse of the drug or other substance may lead to limited physical dependence or psychological dependence relative to the drugs or other substances in schedule IV." Schedule V substances are only available for a medical purpose.

Drugs in this schedule include:

- Cough suppressants containing small amounts of codeine (e.g., promethazine+codeine);
- Preparations containing small amounts of opium or diphenoxylate (used to treat diarrhea);
- Pregabalin (Lyrica), an anticonvulsant and pain modulator.
- Pyrovalerone
- Some centrally-acting anti-diarrhoeals, such as diphenoxylate (Lomotil) when mixed with atropine to make it unpleasant for people to grind up, cook, and inject. Difenoxin with atropine (Motofen) has been moved to Schedule IV. Otherwise the drugs are in Schedule II.