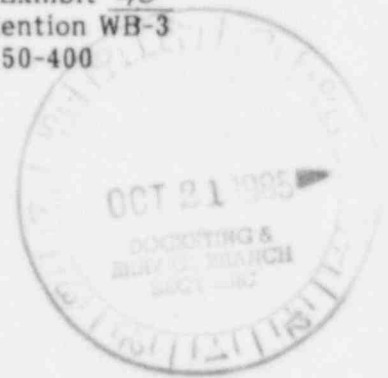


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Applicants' Exhibit 40  
CCNC Contention WB-3  
Docket No. 50-400



"Controlled Substances: Use, Abuse and Effects"  
U.S. Drug Enforcement Administration  
(1981)

NUCLEAR REGULATORY COMMISSION

Docket No. 50-400 Official Ex. No. 40  
In the matter of Sharon Harris  
Staff \_\_\_\_\_ IDENTIFIED ☒  
Applicant ☒ RECEIVED ☒  
Intervenor \_\_\_\_\_ REJECTED \_\_\_\_\_  
Com's Off'r \_\_\_\_\_ DATE 9-30-85  
Contractor \_\_\_\_\_ Witness \_\_\_\_\_  
Other \_\_\_\_\_  
Reporter J.W.



# Controlled Substances : Use, Abuse and Effects

Commonly misused drugs, their uses,  
abuses, effects, and the symptoms they produce.

## DEFINITIONS

**Drug:** A substance which by its chemical nature alters the structure or function of the living organism. (For the purpose of this bulletin, a drug is any chemical substance that alters mood, perception, or consciousness, and is misused to the apparent injury of the individual or society.)

**Tolerance:** A state in which the body's tissue cells adjust to the presence of a drug. The term "Tolerance" refers to a state in which the body becomes used to the presence of a drug in given amounts and eventually fails to respond to ordinarily effective dosages. Hence, increasingly larger doses are necessary to produce desired effects.

**Habituation (psychological dependence):** The result of repeated consumption of a drug which produces psychological but no physical dependence. The psychological dependence produces a desire (not a compulsion) to continue taking drugs for the sense of improved well-being.

**Physical Dependence (addiction):** This occurs when a person cannot function normally without the repeated use of a drug. If the drug is withdrawn, the person has severe physical and psychic disturbance.

**Harmful Drugs:** Are all drugs harmful? Every drug is harmful when taken in excess, e.g., even aspirin and, of course, alcohol. Some drugs can also be harmful if taken in dangerous combinations or by hyper-sensitive people in ordinary amounts.

## IDENTIFYING THE DRUG USER

A drug user will do everything possible to conceal his habit. So it is important to be able to recognize the outward signs and symptoms of drug misuse. One should be alert to these symptoms, but it is important to realize that the drug problem is so complex that even experts sometimes have difficulty

making accurate diagnoses. Therefore, it is important not to act on your own for it could lead to falsely accusing an innocent person. Seek professional advice and help from the experts, such as various agencies specializing in drug problems, and physicians.

It should also be remembered that a person may have a legitimate reason for possessing a syringe and needle (he may be a diabetic) or having tablets and capsules (they may be prescribed by a doctor). Having the sniffles and running eyes may be due to a head cold or an allergy. Unusual or odd behavior may not be connected in any way with drug use.

Drugs other than narcotics can become addicting. Some people have acquired an addiction to sedatives and certain tranquilizers. Stimulants in very large doses are addictive.

**NOTE:** Never taste an unknown substance.

## COMMON SIGNS OF DRUG MISUSE

1. Changes in attendance at work or school.
2. Change from normal capabilities (work habits, efficiency, etc.).
3. Poor physical appearance, including inattention to dress and personal hygiene.
4. Wearing sunglasses constantly at inappropriate times (indoors or at night, for instance) not only to hide dilated or constricted pupils but also to compensate for the eye's inability to adjust to sunlight. Marijuana causes blood shot eyes.
5. Unusual effort made to cover arms in order to hide needle marks.
6. Association with known drug users.
7. Stealing items which can be readily sold for cash (to support a drug habit).

(Continued on back page.)



# CONTROLLED SUBS

	Drugs	Schedule	Trade or Other Names	Medical Uses	Physical Dependence
NARCOTICS	Opium	II, III, V	Dover's Powder, Paregoric, Parepectolin	Analgesic, antidiarrheal	High
	Morphine	II, III	Morphine, Pectoral Syrup	Analgesic, antitussive	
	Codeine	II, III, V	Codeine, Empirin Compound with Codeine, Robitussin A-C	Analgesic, antitussive	Moderate
	Heroin	I	Diacetylmorphine, Horse, Smack	Under investigation	
	Hydromorphone		Dilaudid	Analgesic	High
	Meperidine (Pethidine)	II	Demerol, Pethadol	Analgesic	
	Methadone		Dolophine, Methadone, Methadose	Analgesic, heroin substitute	
	Other Narcotics	I, II, III, IV, V	LAAM, Leritine, Levo-Dromoran, Percodan, Tussionex, Fentanyl, Darvon*, Talwin*, Lomotil	Analgesic, anti-diarrheal, antitussive	High-Low
DEPRESSANTS	Chloral Hydrate	IV	Noctec, Somnos	Hypnotic	Moderate
	Barbiturates	II, III, IV	Amobarbital, Phenobarbital, Butisol, Phenobarbital, Secobarbital, Tuinal	Anesthetic, anticonvulsant, sedative, hypnotic	High-Moderate
	Glutethimide	III	Doriden		
	Methaqualone	II	Optimil, Parest, Quaalude, Somnafac, Sopor	Sedative, hypnotic	High
	Benzodiazepines	IV	Ativan, Azene, Clonopin, Dalmane, Diazepam, Librium, Serax, Tranxene, Valium, Vertran	Anti-anxiety, anticonvulsant, sedative, hypnotic	Low
	Other Depressants	III, IV	Equanil, Miltown, Noludar, Placidyl, Valmid	Anti-anxiety, sedative, hypnotic	Moderate
STIMULANTS	Cocaine†	II	Coke, Flake, Snow	Local anesthetic	
	Amphetamines	II, III	Biphetamine, Delcobese, Desoxyn, Dexedrine, Mediatric		
	Phenmetrazine	II	Preludin		
	Methyphenidate	II	Ritalin	Hyperkinesis, narcolepsy, weight control	Possible
	Other Stimulants	III, IV	Adipex, Bacarate, Cylert, Diredex, Ionamin, Plegine, Pre-Sate, Sanorex, Tenuate, Tepanil, Voranil		
HALLUCINOGENS	LSD		Acid, Microdot		
	Mescaline and Peyote	I	Mesc, Buttons, Cactus	None	None
	Amphetamine Variants		2,5-DMA, PMA, STP, MDA, MDMA, TMA, DOM, DOB		Unknown
	Phencyclidine	II	PCP, Angel Dust, Hog	Veterinary anesthetic	Degree unknown
	Phencyclidine Analogs		PCE, PCPy, TCP		
	Other Hallucinogens	I	Bufotenine, Ibogaine, DMT, DET, Psilocybin, Psilocyn	None	None
CANNABIS	Marihuana		Pot, Acapulco Gold, Grass, Reefer, Sinsemilla, Thai Sticks	Under Investigation	
	Tetrahydrocannabinol		THC		Degree unknown
	Hashish		Hash		
	Hashish Oil		Hash Oil	None	

# STANCES: USES & EFFECTS

Psychological Dependence	Tolerance	Duration of Effects (in hours)	Usual Methods of Administration	Possible Effects	Effects of Overdose	Withdrawal Syndrome
High	Yes	3 - 6	Oral, smoked	Euphoria, drowsiness, respiratory depression, constricted pupils, nausea	Slow and shallow breathing, clammy skin, convulsions, coma, possible death	Watery eyes, runny nose, yawning, loss of appetite, irritability, tremors, panic, chills and sweating, cramps, nausea
Moderate			Oral, injected, smoked			
High			Oral, injected			
			Injected, sniffed, smoked			
High-Low		12-24	Oral, injected			
	Variable					
Moderate	Possible	5 - 8	Oral	Slurred speech, disorientation, drunken behavior without odor of alcohol	Shallow respiration, cold and clammy skin, dilated pupils, weak and rapid pulse, coma, possible death	Anxiety, insomnia, tremors, delirium, convulsions, possible death
High-Moderate	Yes	1 - 16	Oral, injected			
High		4 - 8				
Low						
Moderate						
High	Possible	1 - 2	Sniffed, injected	Increased alertness, excitation, euphoria, increased pulse rate and blood pressure, insomnia, loss of appetite	Agitation, increase in body temperature, hallucinations, convulsions, possible death	Apathy, long periods of sleep, irritability, depression, disorientation
	Yes	2 - 4	Oral, injected			
			Oral			
Degree unknown	Yes	8 - 12	Oral	Illusions and hallucinations, poor perception of time and distance	Longer, more intense "trip" episodes, psychosis, possible death	Withdrawal syndrome not reported
High		Up to days	Oral, injected			
Degree unknown		Variable	Smoked, oral, injected			
	Possible		Oral, injected, smoked, sniffed			
Moderate	Yes	2 - 4	Smoked, oral	Euphoria, relaxed inhibitions, increased appetite, disoriented behavior	Fatigue, paranoia, possible psychosis	Insomnia, hyperactivity, and decreased appetite occasionally reported

\* Not designated a narcotic under the CSA

† Designated a narcotic under the CSA

## INDICATIONS OF POSSIBLE MISUSE

### DEPRESSANTS e.g., *Quaalude, Doriden (Barbiturates)*

- A. Behavior like that of alcohol intoxication, but without the odor of alcohol on breath.
- B. Staggering, stumbling, or apparent drunkenness without odor or use of alcohol.
- C. Falling asleep while at work.
- D. Slurred speech.
- E. Pupils dilated.
- F. Difficulty concentrating.

### STIMULANTS (*Amphetamines*)

- A. The user may be excessively active, irritable, argumentative, or nervous.
- B. Excitation, euphoria, and talkativeness.
- C. Pupils dilated.
- D. Long periods without eating or sleeping.
- E. Increased blood pressure or pulse rates.

### NARCOTICS

- A. Scars ("tracks") on the arms or on the backs of hands, caused by injecting drugs.
- B. Pupils constricted and fixed; possibly dilated during withdrawal.
- C. Scratches self frequently.
- D. Loss of appetite. Frequently eats candy, cookies, and drinks sweet liquids.
- E. May have sniffles, red, watering eyes and a cough which disappears when he gets a "fix". During withdrawal the addict may be nauseated and vomiting. Flushed skin, frequent yawning, and muscular twitching are common. These symptoms also disappear when the addict gets a "fix".
- F. Users often leave syringes, bent spoons, cotton, needles, metal bottle caps, medicine droppers, and glassine bags in locker or desk drawers.
- G. The user is lethargic, drowsy, and may go on the "nod" (i.e., an alternating cycle of dozing and awakening.)
- H. Anyone dissolving tablets for injection runs a great risk and danger of lung impairment due to deposits of talcum (part of the tablet) obstructing or occluding the lung through the blood stream.

### MARIJUANA

- A. In the early stages of marijuana usage, the person may appear animated with rapid, loud talking and bursts of laughter. In later stages, he may be sleepy.
  - B. Pupils may be dilated and the eyes bloodshot.
  - C. May have distortions of perception and hallucinations.
- The marijuana user is difficult to recognize unless he is actually under the influence of the drug, and even then, he may be able to work reasonably well. The drug may distort his depth and time perception, making driving or the operation of machinery hazardous. Long continued use of marijuana has been associated with mental deterioration.

### OTHER HALLUCINOGENS

- A. Behavior and mood vary widely. The user may sit or recline quietly in a trance-like state or may appear fearful or even terrified.
- B. In some cases, dilated pupils.
- C. Increase in blood pressure, heart rate, and blood sugar.
- D. May experience nausea, chills, flushes, irregular breathing, sweating and trembling of hands.
- E. There may be changes in sense of sight, hearing, touch, smell, and time.

It is unlikely that a person who uses LSD, for instance, would do so at work, since a controlled environment, often involving a friend to provide care and supervision of the user, is generally desired.

### GLUE OR HYDROCARBON (*Gasoline*) SNIFFING

- A. Odor of substance inhaled on breath and clothes.
- B. Excessive nasal secretion and watering of the eyes.
- C. Poor muscular control (staggering) within five minutes of exposure.
- D. Drowsiness or unconsciousness.
- E. Presence of plastic or paper bags or rags containing dry plastic cement.
- F. Slurred speech.
- G. Bad breath.

### Phencyclidine (PCP)

Phencyclidine, developed in the 1950's, is now licitly manufactured as a veterinary anesthetic under the trade name *Sernylan*. Since 1967 it has also been produced in clandestine laboratories, frequently in dangerously contaminated forms. The prevailing patterns of street-level abuse are by oral ingestion of tablets or capsules, containing the drug in powder form both alone and in combination with other drugs, and by smoking the drug after it has been sprinkled on parsley, marijuana, or some form of tobacco. It is sometimes sold to unsuspecting consumers as LSD, THC, or mescaline. Reported experiences under the influence of phencyclidine are mainly nondescript or unpleasant. In low doses the experience usually proceeds in three successive stages: changes in body image, sometimes accompanied by feelings of depersonalization; perceptual distortions, infrequently evidenced as visual or auditory hallucinations; and feelings of apathy or estrangement. The experience often includes drowsiness, inability to verbalize, and feelings of emptiness or "nothingness." Reports of difficulty in thinking, poor concentration, and preoccupation with death are common. Many users have reacted to its use with an acute psychotic episode. Common signs of phencyclidine use include flushing and profuse sweating. Analgesia, involuntary eye movements, muscular incoordination, double vision, dizziness, nausea, and vomiting may also be present.