NUCLEAR POWER GENERATION
DIABLO CANYON POWER PLANT
INSTRUCTOR LESSON GUIDE

PROGRAM: GENERAL EMPLOYEE TRAINING

COURSE: FITNESS FOR DUTY

TOpIC: FITNESS FOR DUTY

LESSON: FITNESS FOR DUTY (GENERIC)

COURSE NO.: GFFD100

TOpIC NO.: GFFD100

LESSON NO.: GFFD100/R

APPROXIMATE TIME FOR INSTRUCTION: SELF PACED

Instructor Materials

This lesson is taught as Web-Based Training.

Student Materials

1. A computer.

Lesson References

1. NEI 03-04 (Rev 8), Guideline for Plant Access and Other Standardized Shared Training Courses and Evaluations Training
2. System Admin. Bulletin: Rev. to NEI 03-04 7.1.2.b.7 Foreign Travel
3. 10 CFR 26, Fitness For Duty Subpart I Fatigue Management Rule
4. 10 CFR 73, Physical Protection Of Plants And Materials, Part 56(f)&(g) Personnel Access Authorization Requirements for Nuclear Power Plants
5. OM11.ID1, Site Access Process
6. OM14.ID1, Fatigue Management Rule Program
7. OM14.ID3, Fitness for Duty Program
8. SAPN50326927 (Task 24); SAPN50326927

Remarks

1. This lesson is designed for Web-Based Training or self-study. The information in this lesson will be evaluated by the use of a computer test. This lesson does not contain change bars as it has been extensively rewritten.
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Introduction

The lesson is in accordance with requirements outlined in the Code of Federal Regulations Part 26. The material meets the Nuclear Energy Institute's Access Authorization (AA), Fitness for Duty (FFD) and Behavioral Observation Program (BOP) objectives stated in NEI 03-04, *Guidelines for Plant Access Training*.

- Effectiveness measure – Upon completion you will understand the importance of being Fit For Duty, what their rights and responsibilities under 10 CFR 26, and comply with the rules and regulations governing all nuclear power plants in the US as to Fitness for Duty.
- Passing Score on a Computer-Based Test is 80%

Examination

ALL Contractor & Vendor employees taking this exam MUST be proctored.

Permanent PG&E employees taking this exam DO NOT have to be proctored, with the following exception: A permanent PG&E Employee not under behavioral observation for 30 days or more is required to be proctored on exams during the first 90 days of their return to the observation program.

Failure of this exam will suspend your Protected Area access.

- If you fail this exam while inside the Protected Area you MUST leave the Protected Area immediately.
- Failure of this exam may affect your EPlan qualifications.
- If you require protected area access for your EPlan minimum staffing position either;
  a. take this exam while you are not on call, or
  b. ensure you have backup prior to taking this exam.
Objectives

Terminal objective

Upon completion of this lesson the student should understand the importance of being Fit For Duty, what their rights and responsibilities under 10 CFR 26, and comply with the rules and regulations governing all nuclear power plants in the US as to Fitness for Duty.

Enabling objectives

The following objectives apply to the lesson.

<table>
<thead>
<tr>
<th>#</th>
<th>Generic Objective Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>State PG&amp;E’s Access Authorization (AA) and Fitness for Duty (FFD) policy that applies to the individual nuclear worker.</td>
</tr>
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<td>State the methods used to implement the basic AA and FFD requirements for all individuals who have Unescorted Access (UA) to the protected area (or assigned duties at the TSC or EOF in support of the Emergency Plan).</td>
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<td>State individual roles and responsibilities under the Access Authorization and Fitness For Duty program.</td>
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<td>State the role of the Medical Review Officer (MRO), Human Resources and the FFD staff in the FFD program.</td>
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<td>6</td>
<td>Identify the Employee Assistance Program (EAP) services available to the individual.</td>
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<td>7</td>
<td>Recognize the personal, public health and safety hazards associated with the use/abuse of drugs (including prescription, over-the-counter drugs and dietary factors) and alcohol.</td>
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<td>State the effects prescription drugs, over the counter drugs, dietary factors (e.g., food products such as poppy seeds or hemp oil, etc.) on drug test results.</td>
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<td>State individual rights regarding the AA and FFD programs.</td>
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<tr>
<td>11</td>
<td>Recognize indicators of or precursors to aberrant behavior and that behavior may change quickly.</td>
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<td>Recognize illegal drugs and indications of the illegal use, sale or possession of drugs including the intent to sell.</td>
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<tbody>
<tr>
<td>13</td>
<td>Describe Behavior Observation Program (BOP) techniques for detecting and reporting performance degradation, impairment, or changes in individual behavior including work performance, social interactions, personal health, other observed behavior concerns (e.g., expressions of hatred or intent to harm the public) and known illegal off-site activities.</td>
</tr>
<tr>
<td>14</td>
<td>State individual responsibility and process for handling and reporting behavioral problems and Fitness For Duty concerns and other activities that could impact an individual's trustworthiness and reliability.</td>
</tr>
<tr>
<td>15</td>
<td>State the individual's responsibility and process for referral to the Employee Assistance Program (EAP).</td>
</tr>
<tr>
<td>16</td>
<td>State the individual responsibility to report all legal actions that could impact an individual's trustworthiness and reliability.</td>
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<tr>
<td>17</td>
<td>State the role of the Reviewing Official in the processing of FFD concerns.</td>
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<tr>
<td>18</td>
<td>State the symptoms of worker fatigue and contributors to decreased alertness in the workplace.</td>
</tr>
<tr>
<td>19</td>
<td>State the contributors to worker fatigue.</td>
</tr>
<tr>
<td>20</td>
<td>State the contributors to circadian variations in alertness and performance.</td>
</tr>
<tr>
<td>21</td>
<td>State the indications and risk factors for common sleep disorders.</td>
</tr>
<tr>
<td>22</td>
<td>State shift work strategies for obtaining adequate rest.</td>
</tr>
<tr>
<td>23</td>
<td>State the effective use of fatigue countermeasures.</td>
</tr>
<tr>
<td>24</td>
<td>State the supervisor's role and responsibilities under the Access Authorization and Fitness For Duty program.</td>
</tr>
<tr>
<td>25</td>
<td>Recognize and report behaviors adverse to the safe operation and security of the facility including an unusual interest in or predisposition towards security and/or involvement in operations activities outside the normal work activities' scope.</td>
</tr>
</tbody>
</table>
Objective 1: State PG&E’s Access Authorization (AA) and Fitness for Duty (FFD) policy that applies to the individual nuclear worker.

Need to know: Federal Law requires that each utility licensed to operate a nuclear facility to:

- Provide reasonable assurance that station personnel are reliable and trustworthy and are not under the influence of any substance (legal or illegal) or mentally impaired from any cause that may adversely affect their ability to safely and effectively perform their duties.
- Establish a Fitness For Duty (FFD) program to create an environment free of drugs, alcohol, and their effects, and provide you with assistance for FFD-related problems.

It is the policy of PG&E that all individual's:

- Report to work fit for duty and unimpaired by alcohol, drugs, or fatigue.
- Abstain from alcohol at least five (5) hours before regularly scheduled work and long enough to ensure blood alcohol content (BAC) is less than 0.02 percent. Failure to meet this requirement could result in termination of unescorted access (UA).
  - Depending on the factors such as quantity consumed and the size of the individual, abstaining for 5 hours is no guarantee you will meet the requirement.
- Report legal actions as required. (More information on the legal action reporting requirements for DCPP will be covered in this lesson and the site specific lesson.)

You are fit for duty when you are free from mental and physical impairments that could adversely affect your abilities to work safely and competently. Impairments could be caused by any of the following:

- Substance abuse
- Mental stress
- Illness (physical or mental)
- Prescription and over the counter medications
- Alcohol
- Fatigue
- Dietary factors

Practice: Abstaining from alcohol for at least five (5) hours prior to going to work will guarantee that your blood alcohol content (BAC) will be less than 0.02 percent. (TRUE or FALSE)

ANS: False, Not drinking for 5 hours will not guarantee that you will be below 0.02 BAC or fit for duty when you arrive at work.
FFD Implementation

Objective 2
State the methods used to implement the basic AA and FFD requirements for all individuals who have unescorted access to the protected area (or assigned duties at the Technical Support Center (TSC) or Emergency Operations Facility (EOF) in support of the emergency plan).

Need to Know: Tools
The primary tools used to implement AA and FFD are:
- Drug and alcohol testing
- Behavioral observation program (BOP);
- Training; and
- Employee Assistance Program (EAP)/Substance Abuse Expert (SAE).

All workers will be trained to the highest level of the Fitness for Duty and Behavioral Observation programs.

Need to Know: Types of Testing
There are five categories of chemical tests:
1. **Pre-access:** conducted within 30 days prior to granting of unescorted access or assignment to any Emergency Operations Facility or Technical Support Center.
2. **Random:** Conducted at various unannounced times while you are at work, including weekends, backshifts and holidays. At an annual rate at least equal to 50 percent of the work force authorized unescorted access.
3. **For-cause:** Testing shall be conducted:
   a. Following any worker observed behaving in a way which indicates possible substance use or abuse in violation of FFD program rules.
   b. After receiving credible information that a person is abusing drugs or alcohol.
4. **Post-event:** Testing shall be conducted:
   a. Following an accident involving human error that causes:
      I. a personal injury that involved a failure in individual performance (human error) that is recordable at the time of the event or reasonably could ultimately be recordable under OSHA standards, or
      II. a radiation exposure or a release of radioactivity in excess of regulatory limits, or
      III. actual or potential substantial degradations of the level of safety of the plant, if there is reasonable suspicion that the person’s behavior contributed to the event.
5. **Follow-up:** will be performed for any individual, if access is re-instated, after testing positive for drugs or alcohol to verify continued abstinence from the use of substances. Follow-up testing is administered in addition to random testing.

*Continued on next page*
FFD Implementation, Continued

**Need to Know: Testing Notification**
When you are to report for chemical testing, your supervisor or point of contact will be notified. They will then notify you of the scheduled test time.

When you have been notified that you have been scheduled for a random chemical test, you must report at the scheduled time, but no later than one hour.

You may **not** request time off once notified of a scheduled test.

**Need to Know: Call-ins**
You may be called in for unscheduled work. You are responsible for reporting if you have consumed alcohol within the past five hours or are not fit for duty for any other reason. (Additional information on this subject will be discussed in the FFD Site Specific lesson.)

**Need to Know: Testing**
You will be tested for the following substances:
- Alcohol
- Marijuana
- Opiates
- Phencyclidine (PCP)
- Cocaine
- Amphetamines

**Need to Know: Test Methods and Results**
Urinalysis will be used for all substances except alcohol. A breath alcohol content test will be used for alcohol, and a second confirmatory breath alcohol content test will be used if the test result is 0.02% or greater.

<table>
<thead>
<tr>
<th>Blood Alcohol Content</th>
<th>Time at Work (Through Test completion, Including break periods)</th>
<th>Test Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.04</td>
<td>Any</td>
<td>Positive</td>
</tr>
<tr>
<td>0.03</td>
<td>One hour or more</td>
<td>Positive</td>
</tr>
<tr>
<td>0.02</td>
<td>Two hours or more</td>
<td>Positive</td>
</tr>
<tr>
<td>Between 0.01 and 0.02</td>
<td>Three hours or more</td>
<td>Negative, but you will be temporarily removed from activities covered by the FFD Program.</td>
</tr>
</tbody>
</table>

**Practice**
A chemical test requested by a supervisor after credible information that a worker has been abusing substances is called a:
- A. For cause test
- B. Post event test
- C. Follow up test
- D. Suspension test

ANS: A
NRC Sanctions (Penalties)

Objective 3
State the NRC mandated sanctions with regard to FFD program violations.

Need to Know: Testing Positive
Positive drug or alcohol test NRC sanctions (penalties) include:

- 1st positive - unfavorable unescorted access termination for a minimum of 14 days
- 2nd positive - termination of access minimum 5 years
- 3rd positive - permanent loss of access

Any attempt to subvert the testing process (including refusal to give a sample) shall result in dismissal and permanent denial of access.

Need to Know: Additional Sanctions
Certain acts require an unfavorable termination of access authorization for at least five years:

- if you are involved in the sale, use, or possession of illegal drugs or the consuming alcohol in the Protected Area of a nuclear plant or while performing duties (even if not onsite) in the employment of the nuclear power plant.
- Resigning or withdrawing an application for access authorization before it is terminated or denied for a first violation of the FFD policy involving a confirmed positive test.

Practice
Under the Fitness for Duty rules, possession of illegal drugs or consumption of alcohol "while performing duties" only applies while you are onsite (True or False)?

ANS: False, If you are performing duties off-site and violate the FFD program rules, your access authorization will be unfavorable terminated.
Individual Roles & Responsibilities

Objective 4

State individual roles and responsibilities under the Access Authorization and Fitness For Duty program.

Need to Know: Individual Responsibilities

It is the policy of PG&E that every individual (student):

- Arrive at work fit for duty
- As part of the initial and subsequent background investigations, report:
  - Any previous denial of plant access
  - All foreign travel
- Report all legal actions (More details on legal actions will be discussed in the FFD Site Specific lesson.)
- Do not use, sell, or possess, illegal substances on or off company property.
- Cooperate fully with the chemical testing program.
- Seek assistance for any problems that may affect your ability to work safely and competently.
- Keep your supervisor informed of:
  - any problems such as mental stress, fatigue, or illness that may affect your fitness for duty.
  - any medication or other substances that could affect your ability to work safely and competently. (Do not use someone else's prescription drugs).
- To prevent events, if you notice the following activity, report it to your supervisor or DCPP Security Watch Commander as soon as possible:
  - unusual behavior or suspect substance abuse by any other worker. Prompt action is required since there is a potential for injuries or reduced plant performance.
  - actions that threaten company property or coworkers.

Practice

It is your responsibility to report to your supervisor any problems with mental stress, fatigue, or illness that may affect your fitness for duty. (TRUE/FALSE)

ANS: True
Roles of Others

Objective 5
State the roles and responsibilities of the Medical Review Officer (MRO), Human Resources, FFD and EAP staff in the FFD program.

Need to Know: MRO
The Medical Review Officer (MRO) is a licensed physician specializing in substance abuse disorders and chemical testing methods. The MRO is responsible for:
- reviewing and fully investigating all presumptive (probable) positive test results
- informing EAP and the Access/FFD Supervisor of confirmed positive test results
- recommending individuals to the employee assistance program (EAP)

The MRO will be the final medical authority in determining the positive result of FFD chemical testing.

Need to Know: FFD Group
The role of the FFD Staff:
- To perform the collection of specimens
- Notification of plant supervision of testing requirements (e.g. random selection, follow-up testing, etc.)
- Reporting results to plant management, under the direction of the MRO.

Need to Know: HR
The role of Human Resources is:
- To coordinate the personnel actions associated with violations of the FFD policies and review of behavioral concerns.

Practice
The licensed physician who makes the final determination of a positive drug test is the:
A. Employee Assistance Officer
B. Fitness for Duty Officer
C. Behavioral Observation Officer
D. Medical Review Officer

ANS: D
EAP Program

Objective 6 Identify the Employee Assistance Program (EAP) services available to the individual.

Need to Know The purpose of EAP is to assist contract and PG&E employees with FFD related and personal matters by providing:

- Short-term counseling
- Referral services
- Treatment monitoring
- Confidential assessment

Employees may request assistance from EAP (self-referral) or referred by their supervisor.

Practice The EAP is:

A.) Employee Activity Program
B.) Emergency Action Plan
C.) Employee Assistance Program
D.) Energy Association Program

ANS: C, The Employee Assistance Program (EAP) is a confidential program provided to assist employees in dealing with personal problems.
Hazards of Abuse

Objective 7
Recognize the personal, public health and safety hazards associated with the use/abuse of drugs (including prescription, over-the-counter drugs and dietary factors) and alcohol.

Need to Know: Substance Abuse
Substance abuse includes illegal drugs, but they are only part of the picture. It also includes prescription, over-the-counter drugs, dietary factors and alcohol.

Substance abusers have a greater negative impact on the world than non-abusers:
- **Two** times as many absences
- **Two** times as many mistakes
- **Three** times as many sick benefits
- **Four** times as many accidents
- **Five** times as many worker compensation claims

Substance abusers behind the wheel of a car cause:
- **50 percent** of all vehicular accident **deaths**
- **500,000** serious injuries in vehicular **accidents** each year

Practice
Substance abusers:
A. File about twice as many worker compensation claims
B. Have about three times as many accidents
C. Cause 50% of all vehicular accident deaths
D. Make four times as many mistakes

ANS: C, substance abusers are hazardous to everyone's life and health
**Prescription, OTC Drugs & Dietary Factors**

**Objective 8**
State the effects of prescription drugs, over the counter, dietary factors (e.g. food products such as poppy seeds or hemp oil, etc.) on drug test results.

**Need to Know: Products**
Some foods or substances are **not** known to cause impairment when consumed in moderate or reasonable amounts yet may show up in chemical testing. For that reason, drug testing performed at nuclear power facilities are set high enough to prevent a "positive" result from consuming them in a moderate or reasonable amount:

- **Poppy seeds** are a common item found in many food products that may show up as opiates in chemical testing.
- **Cocoa leaf tea**, used as an energy drink, contains quantities of cocaine.
- **Hemp and Hemp Oil** are increasingly popular legal ingredients used in health food, beauty supplies, clothing and other household products that may show up as marijuana in testing.

**NOTE:** The MRO **will not** accept ingestion/use of these food items/products as a valid explanation for a positive test result. If a result is positive, there is some other reason (consumption of illegal substances).

- **Energy drinks containing alcohol** not only impair your abilities, they may result in a positive test for alcohol. These are **not allowed** to be consumed on company property or while performing duties off site.
- **Cold and cough medications containing alcohol and/or codeine.** These can not only affect your behavior, they may cause a positive test result. Never take someone else's prescription drugs and don't abuse your own.
- **Kava Kava** is an herb (like valerian root) found in health food stores for stress relief that can make an individual appear impaired.

You are required to be aware of what you consume and the possible side effects of such foods, vitamins, or medications by reading labels, heading warning labels, using as directed and avoiding excessive use.

**Practice**
If you have a confirmed positive drug test for marijuana it shouldn't be a problem. You can just tell the MRO that you eat hemp cheese, use hemp lotion and wear a lot of clothing that is made from hemp. (TRUE or FALSE)?

ANS: FALSE. The MRO **will not** accept ingestion or use of these food items as a valid explanation for a positive test result.
Adverse Effects on Job Performance

Objective 9
State the potential adverse effects of prescription drugs, over the counter drugs, dietary factors (e.g. food products such as poppy seeds or hemp oil, etc..), illness, mental stress may have on job performance.

Need to Know:
Adverse Effects
Drugs and alcohol can have a negative effect on job performance.
- Poor judgment
- Changes in reflexes
- Impaired vision
- Reduced problem solving ability

Need to Know:
Illness
Prescription and over the counter medication used to treat an illness, sleeping disorders and smoking cessation can affect your ability to do your job safely and may cause a positive drug test. Discuss with your doctor and read the warning labels so you understand how it may affect you before taking it.

Tell your supervisor when there is a possibility that an illness or medication may affect your performance or your ability to work safely.

Always follow the directions and never take anyone else's prescription drugs. If you bring medications to work, you must keep them in the original containers.

Need to Know:
Stress
Occasional stress is normal. It can be caused by many factors including family, finances and work.

When stress occurs over a long period of time, it's called chronic stress. This can affect your quality of life as well as your job performance. Signs of stress can include the following:
- Increased irritability
- Depression
- Chronic fatigue (fatigue that has set in over several weeks or months)
- Overreacting
- Impulsiveness
- Excessive use of alcohol or drugs; and
- Constant worry

Practice:
Over-the-counter drugs are not an FFD concern since they never show up in the chemical test or cause impairment in job performance. (TRUE or FALSE)

ANS: False, not only can they appear positive on a chemical test, they can also impair job performance.
Individual Rights

Objective 10
State individual rights regarding the Access Authorization and Fitness For Duty program.

Need to Know: Individual Rights
If you test positive, you have the right to appeal the test results and any resulting sanctions (penalties) taken against them. The appeal must be in writing within seven (7) days of getting results from the MRO.

Each employee has the right to privacy at the collection site unless:
- There is reason to believe you will alter, substitute or tamper with a specimen
- Temperature of the specimen is abnormal (outside of normal range)
- Previously violated FFD rules

Personal information collected for the FFD program will be protected and will not be disclosed except as required by the appropriate procedure.

Practice
You have the right to privacy at the collection site unless you have previously violated the FFD rules or there is a reason to believe you will tamper with the specimen. (TRUE or FALSE)

ANS: True
Aberrant Behavior

Objective 11
Recognize indicators of or precursors to aberrant behavior and that behavior may change quickly.

Need to Know:
Aberrant Behavior
Most people behave in a consistent manner. Changes in this pattern can occur quickly and may result from many possible causes, including health, family and work difficulties. Usually short lived, all of us experience such changes at one time or another. On occasion the difficulties continue and even intensify.

When an individual is acting differently than their "normal" behavior, we call that "Aberrant behavior". Aberrant behavior can be seen in changes to personal health, social interaction and work performance.

It is important to observe any indicators of degraded behavior.

Need to Know:
Personal Health
Personal health behavior changes can be seen in a person's physical appearance or emotional state:
- very emotional
- weight loss/gain
- sweating
- nausea/stomachaches
- shortness of breath
- bizarre or unusual ideas
- shaking/twitching
- changes in grooming
- frequent trips to the bathroom
- difficulty sleeping

Need to Know:
Social Interaction
Changes in how people interact with others can often reveal Fitness For Duty issues:
- avoids social contact
- holds grudges
- changes friends
- ignores co-workers
- complains frequently
- talks about suicide, disasters, hopelessness, etc.
- brags
- lies
- dominates conversations
- plays pranks
- fights (verbal or physical)
- displays sexually inappropriate behavior

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Aberrant Behavior, Continued

<table>
<thead>
<tr>
<th>Need to Know: Work Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance changes can be seen in a worker's quality, attention to detail, adherence to policies, and cooperation with co-workers:</td>
</tr>
<tr>
<td>• works much faster/slower</td>
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<tr>
<td>• makes mistakes, careless</td>
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<tr>
<td>• steals or damages property</td>
</tr>
<tr>
<td>• forgets important things</td>
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<tr>
<td>• becomes overly cautious</td>
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<tr>
<td>• breaks or &quot;bends&quot; the rules</td>
</tr>
<tr>
<td>• often calls in sick</td>
</tr>
<tr>
<td>• refuses to take direction</td>
</tr>
<tr>
<td>• refuses to give/receive help</td>
</tr>
<tr>
<td>• takes many or long breaks</td>
</tr>
</tbody>
</table>

Practice

What are some general indicators of degraded behaviors that must be watched for:

A) Personal health behaviors
B) Interaction with others
C) Changes in work performance
D) All of the above

ANS: D
Recognize Illegal Drugs

Objective 12 Recognize illegal drugs and indications of the illegal use, sale or possession of drugs including the intent to sell.

Need to Know: Illegal Drug Sales
It is important for everyone's safety to be alert to negative behavior in the workplace. Pay attention to anyone who appears nervous, as if hiding something. Drug dealers come in all types. Drug sales can occur anywhere and may take as little time as a handshake. All plant workers and escorts need to be aware of places where drugs can be hidden:
- Clothing
- Tobacco Packages
- Personal Containers

If you suspect that drugs are being sold, used or kept on company property, report it immediately to security.

Need to Know: Drugs
Learning to recognize the common substances that are abused and their effects will be helpful. Aside from alcohol there is:
- Marijuana
- Cocaine
- Opiates
- Phencyclidine ("Angel Dust")
- Amphetamines (Stimulants)

Need to Know: Marijuana
Marijuana (Cannabis)
Examples: Hashish, hashish oil, and marijuana
Physical Signs:
- Rolling Papers
- Pipes
- Dried Green Plant Material
- Marijuana Cigarette Clips
- Odor of burnt hemp rope
- Bloodshot Eyes
- Wide Pupils

Behavioral Signs:
- Euphoria
- Disorientation
- Lowered Inhibitions
- Increased Appetite

Continued on next page
Recognize Illegal Drugs, Continued

Need to Know: Depressants
Depressants are sometimes used to treat anxiety, tension and insomnia.
Examples: Alcohol, barbiturates, Valium, Quaaludes, and some over the counter medications.

Physical Signs:
- Alcoholic beverage containers
- Alcohol odor on breath or clothes
- Capsules, pills, and tablets
- Watery or Glazed Eyes
- Bloodshot Eyes
- Hangovers

Behavioral Signs:
- Slurred Speech
- Talking Loud
- Sleeping Longer
- Lowered Inhibitions
- Disoriented/Confused
- Exaggerated Motions

Need to Know: Narcotics
Narcotics are used to treat pain and insomnia.
Examples: Opium, heroin, codeine, and morphine

Physical Signs:
- Small Pupils, Droopy Eyelids
- Cold, Moist Skin
- Needles/Syringes
- Spoons

Behavioral Signs:
- Slurred Speech
- Talking Loud
- Sleeping Longer
- Lowered Inhibitions
- Disoriented/Confused
- Exaggerated Motions

Need to Know: Stimulants
Stimulants are used to treat narcolepsy, obesity and hyperactivity.
Examples: Cocaine, amphetamines (speed), methamphetamines, caffeine, nicotine and some diet pills.

Physical Signs:
- Capsules/Pills
- Glass Vials, Pipes
- Razor Blades
- Small Pupils
- White powder/chunks
- Spoons, Straws
- Weight Loss

Behavioral Signs:
- Euphoria
- Mood Swings
- Hyperactivity
- Loss of Sleep
- Increased Alertness, Excitation
- Irritable/Anxious
- Risk taking/Overconfidence
- Loss of Appetite

Continued on next page
Recognize Illegal Drugs, Continued

Need to Know:  Hallucinogens distort perception of reality.

Examples:  LSD, phencyclidine (PCP), mescaline, and psilocybin

Physical Signs:
- Capsules/Pills
- Dried Mushrooms, Cacti
- Blotter Squares
- "Microdots"

Behavioral Signs:
- Delusions/Hallucinations
- Poor Coordination
- Poor Perception of Time or Distance
- Blank Stare
- Rapid Eye Movement
- "Flashbacks"

Practice

You see some people in an out of the way spot of the plant passing money and a roll of something. When they see you, a pipe falls out of one person's pocket and the group rapidly breaks up. This could be a sign that there is an illegal drug transaction occurring.

(TRUE or FALSE)

ANS: True. These are possible signs of a drug transaction.
Performance Degradation

Objective 13  
Describe BOP techniques for detecting and reporting performance degradation, impairment, or changes in individual behavior including work performance, social interactions, personal health, and other observed behavior concerns (e.g., expressions of hatred or intent to harm the public) and known illegal off-site activities.

Need to Know:  
BOP

The Behavioral Observation Program (BOP) is the primary means for determining continued trustworthiness and reliability of individuals in the workplace.

If you recognize a decline in any worker's behavior or performance, that is below plant expectations or has potential to negatively impact plant or personnel safety, it is important to inform your supervisor.

Some indicators that warrant a closer observation and evaluation include:
- absenteeism and abuse of time-off
- performance declines
- personal behavior changes
- performance and work efficiency
- physical signs or change in their health or appearance

Once supervision is informed, they will then observe and document the individual's behaviors, to figure out the extent of change in the worker's behavior.

It is important to be alert to adverse behaviors in the workplace. If any of the following are observed get your supervisor or security involved immediately:
- An expression of hatred toward someone or a plant organization.
- Threats to other workers
- Threats to the plant or property

Practice

The worker's supervisor will look at the worker's change in behavior and decline in performance to see if there is possible impairment present. (TRUE or FALSE)

ANS: True
Reporting FFD Concerns

Objective 14

State individual responsibility and process for handling and reporting behavioral problems, Fitness For Duty concerns and other activities that could impact an individual's trustworthiness and reliability.

Need to Know:

Individual Responsibility

Every individual is responsible to:

- Recognize individual behavioral changes that, if left unattended, could lead to acts that are harmful to public health and safety.
- Report behavior changes to your supervisor
- Report any suspicious conditions that could lead to unsafe plant operation.
- Report any suspicious activities or behaviors observed in others, **on or off-site**, that might indicate a fitness for duty concern.

Report the observations in as much detail as possible to security (DCPP Watch Commander), the Access/FFD supervisor or your supervisor.

Observations of a seemingly minor nature have assisted in the prevention of activities that could've disrupted plant operations and impacted the plant's overall security.

Practice

You are offsite at a barbecue and two co-workers are using marijuana. You should:

A. Ignore the situation since it's offsite.
B. Report the incident to the access/FFD supervisor.
C. Refer the individuals to EAP.
D. Assume they have a medical prescription to use it.

ANS: B, Report the incident to the Access/FFD supervisor.
Referral to EAP

Objective 15
State the individual's responsibility and process for referral to the Employee Assistance Program (EAP).

Need to Know: Referral
Employees may
- request assistance from the EAP (self-referral)
- be referred by their supervisor or
- be referred by the company medical staff.

If the EAP determines your condition constitutes a hazard to yourself or others, 10 CFR 26 requires notification to the Access/FFD supervisor even if you are a self-referral.

Practice
If you refer yourself to the EAP and the EAP determines that you are an immediate hazard to someone at the plant, they cannot take any action because you are self-referred. (TRUE or FALSE)

ANS: False
Reporting Legal Actions

Objective 16
State the individual's responsibility to report all legal actions that could impact an individual's trustworthiness and reliability.

Need to Know:
Legal Action
Every individual is required to report their involvement with any legal actions when they are held, detained, taken into custody, charged, arrested, indicted, fined, forfeited bond, cited or convicted for a violation of any law, regulation or ordinance.

This includes felony, misdemeanor, serious traffic offenses, serious civil charges or military charges but does not include minor infractions such as parking tickets and moving violation or minor civil violation such as a zoning violation when not taken physically into custody.

At DCPP, you shall report the legal action to your supervisor or to the Access/FFD supervisor no later than the next working day after the legal action occurred AND before entering the protected area.

Failure to comply with the legal action reporting requirement may lead to the denial of UAA/UA.

More information on the legal action reporting requirements for DCPP will be covered in Fitness for Duty Site Specific Training.

Practice / Feedback
You receive a traffic citation requiring a court appearance for a reckless driving misdemeanor charge. What can be the maximum sanction (penalty) under the NRC rule if you do not report it and your employer finds out?

A. Nothing
B. One year of For Cause Testing
C. Nothing, since you were not arrested
D. Denial of access

ANS: D, Failure to report a legal action is grounds to deny access.
Reviewing Official

Objective 17
State the role of the Reviewing Official in the processing of FFD concerns.

Need to Know: Reviewing Official
Reviewing Official's (RO), who are part of the AA/FFD staff, are responsible to:
- ensure that FFD concerns are reviewed and properly evaluated.
- ensure that any behavior is evaluated against the UAA/UA criteria for granting or maintaining UAA/UA.
- deny UAA/UA to individuals whose behavior no longer meets the requirements of being trustworthy and reliable.

Practice
The reviewing official evaluates potentially unfavorable information to determine if an individual is trustworthy and reliable: (TRUE/FALSE)

TRUE
Fatigue

Objective 18  State the symptoms of worker fatigue and contributors to decreased alertness in the workplace.

Need to Know:  
Symptoms  A fatigued worker exhibits behaviors/symptoms that are unsafe and can lead to accidents in the plant. Some of them include:
- Yawning, red eyes
- Sleepiness
- Irritability
- Memory problems
- Prolonged or excessive blinking
- Difficulty concentrating
- Slow reaction time
- Increased errors

Need to Know:  
Risk Factors  Fatigue can be caused by many factors:
- Hard physical activity
- Long work periods and/or commutes
- Shift work
- Changing, rotating or unpredictable work schedules
- Lack of rest during work breaks
- Sleep/work schedule that conflicts with normal body rhythms
- Sleep disruption
- Little exercise
- Poor diet
- Environmental conditions (high temperature, low light, background noise, etc.)

Practice  Your coworker seems to exhibit an "I don't care" attitude and keeps dropping things. He does not smell of alcohol and never has been a drug-user, to your knowledge. What could be wrong?

A. Nothing, he is just a normal person.
B. He could be fatigued.
C. He could be overdosing on energy drinks.
D. He could be mad at his boss

ANS: B, is the most likely.
Fatigue Contributors

Objective 19
State the contributors to worker fatigue.

Need to Know: Tasks & Environments
Fatigue impairs both mental and physical capabilities. Tasks with the following characteristics are likely to make you less alert and increase worker fatigue:

- repetitive
- high demand for focus
- requirement to stay in one place or position for a long time
- limited social interaction

Environmental conditions that contribute to worker fatigue:

- High heat and humidity;
- Low lighting; and
- Low frequency noise/white noise

Fatigue affects everybody. Often when we are fatigued, we are quite unaware of how badly we are performing.

Practice
You are working in a low light, high temperature environment. This could lead to you becoming more fatigued than ever. (TRUE or FALSE)

ANS: True
Circadian Variations

Objective 20

State the contributors to circadian variations in alertness and performance.

Need to Know: Circadian Phase

"Circadian Variation" refers to what time it is according to the biological clock in your brain.

Your brain programs your body to be awake during the day and asleep during the night.

Shift work, altered and changing work schedules, crossing time zones, long hours of continuous wakefulness and sleep loss can create sleep and circadian disruptions that can reduce alertness and degrade performance. Some examples are:

- Sleepiness while driving
- Reduced attention and poor decision-making while monitoring equipment
- A wide range of performance problems that could affect plant safety

Nice to Know: High Risk Times

High Risk Times for Fatigue:

- Midnight to 6 am
- Early hours of day shift
- First night shift after a break
- First 2 to 3 hours of a shift or end of a shift

Practice

According to the contributors to circadian variations in alertness, you are as likely to be alert in the night time as the day. (TRUE or FALSE)

ANS: False. You are more likely to be alert in the daytime.
Sleep Disorders

Objective 21
State the indications and risk factors for common sleep disorders.

Need to Know: Indications
Sleep is vital to human survival. When deprived of sleep for too long, the human brain can force the body to fall asleep. So it is important to take action to maintain alertness at work and recognize and seek treatment for sleep disorders that might create fatigue or make it worse.

There are 3 types of fatigue:

- **Acute**: Builds up normally within one waking period.
- **Cumulative**: Builds up from getting to little sleep between major waking periods.
- **Chronic**: Caused by weeks or months of cumulative fatigue. Symptoms may include: apathy, loss of short-term memory or concentration, muscle pain, multi-joint pain without swelling or redness, headaches, exhaustion more than 24 hours after exercise.

Sleep disorders such as sleep apnea (stopping breathing while sleeping) and insomnia (failure to get a good night’s sleep) can result in going without sleep for a long time.

Need to Know: Risk factors
Risk factors for sleep disorders include:
- Extended Work and/or Commuting Periods
- Split Shift or Unpredictable Work Schedules
- Sleep/Work Periods Conflicting with Circadian Rhythms
- Sleep disruption
- Inadequate Exercise
- Environmental Stressors

Practice
Sleep disorders such as insomnia and sleep apnea can be made worse by diet and illness. (TRUE or FALSE)

ANS: True
Shift Work

Objective 22
State shift work strategies for obtaining adequate rest.

Need to Know: Strategies
Preventive strategies are used before work and during rest periods. They address the physical causes of fatigue to minimize sleep loss and can be especially helpful in preventing the sleep disruptions that are normally caused by shift and night work schedules:
- Minimize sleep loss,
- Take naps,
- Develop good sleep habits; and
- Understand effects of food, alcohol and exercise.

Practice
Since your body easily adapts to changing shifts in sleeping patterns, you can use your day off periods any way you want. (TRUE or FALSE)

ANS: False. Use your days off and rest periods to adapt to changing shifts.
Fatigue Countermeasures

Objective 23
State the effective use of fatigue countermeasures.

Need to Know:
Fatigue Prevention
Fatigue countermeasures are actions taken on the job and at home to fight fatigue. They can help improve job performance and alertness. The following have been determined to be the most effective in countering fatigue:

- Education on the effects of fatigue
- Adequate sleep (get in the habit of sleeping 8 hours each night)
- Consistent sleep times and meals times
- Work hour limits and rest requirements
- Social interaction
- Physical activity (stretching, isometric exercises, writing)
- Bright lights
- Short naps (15-25 min)
- Avoiding simple carbohydrates such as sugar-laden foods

Practice
To counteract the effects of fatigue it is helpful to turn up the lights and do some stretches. (TRUE or FALSE)

ANS: True
Supervisor's Role

Objective 24
State the supervisor's role and responsibilities under the Access Authorization and Fitness For Duty program.

Need to Know: Supervisors
Supervisors have specific responsibilities in the company's fitness for duty program (FFD) and behavioral observation program (BOP) to:

- Observe employee behavior over time
- Document behavioral problems by recording facts as they occur, not diagnosing. (Accurate records become a tool for taking appropriate action and can be used in the EAP problem solving process.) Records are essential if disciplinary action becomes warranted.
- Recognize job performance decline in its early stages and respond to it promptly and constructively.
- Complete annual supervisory reviews for each individual with Unescorted Access Authorization
- Contact security if an encounter could become physical.

Practice
Who fills out an annual review for each individual with Unescorted Access Authorization?

A. The Individual
B. A peer
C. The MRO
D. The supervisor

ANS: D. The supervisor
Adverse Behaviors

Objective 25

Recognize and report behaviors adverse to the safe operation and security of the facility including an unusual interest in or predisposition towards security and/or involvement in operations activities outside the normal work activities’ scope.

Need to Know: Suspicious Behaviors

It is each workers responsibility to **recognize** and **report** any unusual behaviors, on or off-site, that could threaten the safe operation or security of the plant. Some key things to look for:

- Unusual interest in plant security
- Activities outside a worker's normal job scope
- Strange or poor response when asked about being in a plant or office location outside their normal work area
- Taking suspicious pictures or videos of activities, buildings or security related equipment
- Unusual opinions or expressions of hatred that could imply a threat to a nuclear facility.

If you observe unusual behavior, do not confront the individual. Report it immediately to a supervisor or the Security Watch Commander at x3330.

*Remember to trust your instincts and use your questioning attitude. It's better to inform someone rather than risk not reporting it and later having an incident occur.*

Need to Know: Sabotage

Be aware and report any suspicious conditions that you may find in the plant, such as:

- Misaligned breakers or valves
- Cut wires or cables;
- Foreign objects in machinery, reservoirs or tanks
- Inappropriate holes drilled, punched or cut in pipes, tubes or hoses
- Damage to a component impairing it's safety or security function

An intentional act of sabotage is not only a fireable offence, but a federal offense that if convicted could result in heavy fines and/or imprisonment.

Practice

A coworker that used to be in the military is fascinated with the security at the plant. They ask lots of questions and take photos of the security stations and cameras. This could indicate a potential threat to plant security. (TRUE or FALSE)

ANS: TRUE
Review of the Lesson

**Terminal objective**

Upon completion of this lesson the student should understand the importance of being Fit For Duty, what their rights and responsibilities under 10 CFR 26, and comply with the rules and regulations governing all nuclear power plants in the US as to Fitness for Duty.

**Enabling objectives**

The following objectives apply to the lesson.

<table>
<thead>
<tr>
<th>#</th>
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<tbody>
<tr>
<td>1</td>
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<td>State the methods used to implement the basic AA and FFD requirements for all individuals who have Unescorted Access (UA) to the protected area (or assigned duties at the TSC or EOF in support of the Emergency Plan).</td>
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<td>State the NRC mandated sanctions with regard to FFD program violations.</td>
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<td>State individual roles and responsibilities under the Access Authorization and Fitness For Duty program.</td>
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<td>State the role of the Medical Review Officer (MRO), Human Resources and the FFD staff in the FFD program.</td>
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<td>6</td>
<td>Identify the Employee Assistance Program (EAP) services available to the individual.</td>
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<td>7</td>
<td>Recognize the personal, public health and safety hazards associated with the use/abuse of drugs (including prescription, over-the-counter drugs and dietary factors) and alcohol.</td>
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<td>8</td>
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Review of the Lesson, Continued

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