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Vehicle Access and Search Training Manual

POOR ORIGINAL

Prepared by J. E. Obermiller, H. J. Wait

Argonne National Laboratory
and
Mason & Hanger-Silas Mason Co., Inc.

Prepared for
U. S. Nuclear Regulatory
Commission

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Vehicle Access and Search Training Manual

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Prepared by
J. E. Obermiller, H. J. Wait

Argonne National Laboratory
Argonne, IL 60439
Subcontractor:
Mason & Hanger-Silas Mason Co., Inc.
20 West Vine Street
Lexington, KY 40507

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ABSTRACT

This Vehicle Access and Search Training Manual is intended to assist NRC-licensed organizations and their security personnel in developing vehicle access, control and search operations necessary at nuclear fuel cycle facilities and at reactor facilities. The manual is based on security requirements prescribed by The Nuclear Regulatory Commission as contained in Title 10 of the Code of Federal Regulations, Part 73, "Physical Protection of Plants and Materials." As a condition of the licensing agreement, the licensee is required to maintain a physical protection system which includes a training program for security personnel. The manual includes lesson plans in 1) controlling vehicle entry and exit, 2) searching for contraband, and 3) protecting the facility from sabotage and/or theft of special nuclear materials. These training guidelines provide information and instruction for self-study, discussion and hands-on training. A job knowledge test reviews the entire training program.

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VEHICLE ACCESS AND SEARCH TRAINING MANUAL

PART I

TRAINING PURPOSE AND INTENT

A. TRAINING POLICY GUIDELINES

1. Management Interest

Each Licensee will want to assure that members of the security organization have been trained in the techniques for detecting explosives, weapons and special nuclear material and for detecting surreptitious entry or other subversive action which may be attempted by use of a vehicle. It is therefore desirable that security personnel involved in authorizing and controlling vehicle access to fuel cycle facilities and power plants be thoroughly familiar with the threats imposed by vehicles and be trained in the methods of vehicle search. The success of a training program is usually enhanced by a statement of management's interest in the program. This is most effectively accomplished by prefacing the first training session with a personal appearance and introductory statement by a representative of the Licensee management.

2. Training Standards

The training guidance provided in this document should be used as a standard for familiarizing all security personnel with the various aspects of vehicle access, control and search. Certain Lesson Plans (or portions thereof), however, may not be specifically applicable to a particular facility. In this case, the Licensee should modify the training plan and program to meet the particular requirements.

Refresher training should be undertaken not only at prescribed intervals, but whenever there is an indication of need due to improper performance on the part of the individual.

B. TRAINING SCOPE AND OBJECTIVES

1. General

This program is designed to train security personnel in the detailed procedures for vehicle access and control. The program and Lesson Plans are oriented specifically toward vehicle-related requirements at fuel cycle facilities and power plants. The training curriculum includes material necessary to train a newly-employed security person as well as an experienced person. The program may also be used as a refresher course in re-certification of security personnel in this subject.

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2. Scope

The scope of this training document is oriented specifically to vehicle access and control at fuel cycle facilities and reactor facilities. The program is based on experience and techniques developed by DOD, DOE and other agencies. A training "interface" exists here when considering the content and program for training site security personnel as described in NUREG-0465 "Transportation Security Personnel Training Manual" which is a broad training program treating an extended number of transportation security subjects. This manual details the subject of vehicle search and access control and no conflict is intended between the two documents as each complements the other.

3. Program of Instruction

This training program is composed of seven lessons requiring 21.5 hours of instruction, discussion and field orientation. Depending on the aptitude and experience of the trainee, this time could be reduced or extended. The training is composed of the following elements.

	Subject	Classroom Instruction	Field Work & Practice	Total Hours
001	General Orientation	120 min	60 min	3.0
002	Site Characteristics	90 min	60 min	2.5
003	Vehicle-Related Threats	120 min	60 min	3.0
004	Concealment of Materials	120 min	60 min	3.0
005	Legal Aspects of Vehicle Access & Control	30 min	---	.5
006	Vehicle Control	150 min	---	2.5
007	Vehicle Search	120 min	120 min	4.0
	Test & Review	60 min	120 min	3.0
		13.5 hours	8 hours	21.5 hours

A written or oral examination is recommended at the conclusion of each training period.

4. Training Objectives

The objectives of training security personnel in the techniques of vehicle access and control are:

- a. To familiarize each individual with the security rules imposed on the Licensee by the Nuclear Regulatory Commission (NRC).
- b. To train security personnel in the general nature of site operations and the relationship of this activity to the use of vehicles.
- c. To orient security personnel in the procedures necessary to recognize possibilities for radiological sabotage events and/or the theft of special nuclear material.

- d. To provide security personnel with a general understanding of the capabilities and limitations of equipment used to detect the presence of contraband items and nuclear material.
- e. To train security personnel in the techniques of successful vehicle search.
- f. To achieve for the Nuclear Regulatory Commission (NRC), the objective of precluding a radiological sabotage event or the loss of special nuclear material.

C. CURRICULUM

The training program covers the following major subjects and segments (lessons).

1. General Orientation

- Site Organization
- Site Operations
- Site Configuration
- Local Law Enforcement Activity
- Site Security Plan
- Tour (Field Orientation)

2. Site Characteristics

- Building Operations
- Product Familiarization
- Vehicle Operations
- Site Tour (Field Orientation)

3. Vehicle-Related Threats

- Vehicle Access
- Vehicle Access Control Points
- Vehicle-Related Threat Potential
- Threats
- Site Tour (Vehicle Operations Areas)

4. Concealment of Weapons, Explosives, etc.

- Configuration of Contraband Articles
- Concealment Possibilities
- Equipment Familiarization
- Equipment Use (Field Work)

5. Legal Aspects of Vehicle Access and Search

- Federal Law
- Labor-Management Contract Provisions

6. Vehicle Access Control

Access Procedures
Surveillance
Escort
Emergency Situations

7. Vehicle Search

Search Patterns
Physical/Hand Search
Electronics Search
Animal-assisted Search (Optional)
Field Demonstration

D. METHOD OF INSTRUCTION

1. Each Lesson Plan contains several subject segments. The program should be scheduled to provide as much continuity as possible for the trainees.
2. The time allotted for each session assumes that 3 to 5 individuals are being trained in a group.
3. Trainees should attend field orientation and demonstration exercises in customary dress or uniform.

E. TRAINING OFFICER QUALIFICATIONS

Training officers should know their subject. Learning might be enhanced if the training officers have teaching experience.

F. CONDUCT OF TRAINING

1. This guide provides Lesson Plans which should be used in the order presented.
2. The trainee should be required to read the written material in the Lesson Plan and appropriate reference documents. The training officer should then review the Lesson Plan with the trainee to assure that the material has been understood and to answer questions. The trainee should be required to answer the questions included in the Lesson Plans to give additional assurance that the information has been understood.
3. Following this, the "hands-on" training activities should be performed under observation of the training officer.
4. After completion of the training outlined in each Lesson Plan, related site procedures and security orders should be reviewed by the trainee and the training officer to further assure there are no misunderstandings.

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5. Proficiency checks by security supervisory personnel (including the training officer) should be accomplished at random in actual operational situations. A reorientation should be conducted every 12 months.
6. The information needed by a training officer for the seven lessons can be found in this manual and in NUREG/CR-0484, "Vehicle Access and Control Planning Document," and/or the references listed. However, this should not restrict a training officer from introducing material and information from other sources.
7. Training effectiveness can be enhanced in several ways:
 - a. Announce the training program in a manner which conveys management interest and concern.
 - b. Select a training officer who is competent in the security profession, who knows the training material and who can maintain instructor-student rapport.
 - c. Designate a training area with training aids nearby and readily available.
 - d. Select training aids carefully. When possible use color in preparing pictures, illustrations or maps.
 - e. It is suggested that the training officer make use of slides, viewgraphs, video tape, films and "hands-on" practical training. If a licensee has video-taping capabilities, the actual search of vehicles, gate control procedures, etc., can be taped.

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**PART II
VEHICLE ACCESS AND SEARCH
TRAINING PLANS**

A. TRAINING PLAN 001— GENERAL ORIENTATION

CLASSROOM TIME: 2 hours

FIELD ORIENTATION
TIME: 60 minutes

<u>STUDY PLAN NO.:</u>	<u>SUBJECT:</u>	<u>TIME:</u>
001-1	<u>SITE ORGANIZATION</u>	20 minutes
001-2	<u>SITE OPERATIONS</u>	40 minutes
001-3	<u>SITE CONFIGURATION</u> <u>SITE PERIMETER, GATES, ROADS</u>	20 minutes
001-4	<u>LOCAL LAW ENFORCEMENT OPERATIONS</u>	20 minutes
001-5	<u>SITE SECURITY PLAN</u>	20 minutes
001-6	<u>SITE TOUR</u>	60 minutes

TRAINING AIDS:

Site Organization Chart
Site Maps
Locale Maps (Surrounding Area)
Local Topographic Map
Security Route Diagrams

STUDY REFERENCES:

Code of Federal Regulations Title 10 Parts 70 and 73
Site Security Plan
Security Orders

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LESSON PLAN: 001—GENERAL ORIENTATION

TRAINEE STUDY PLAN: 001-1—Site Organization

CLASSROOM TIME: 20 minutes

STUDY REFERENCES:

1. Site Organization Chart
2. Pictorial Chart of Key Site Officials
3. Security Personnel Organization Chart
4. Emergency Notification Channels with Home and Office Phone Numbers
5. List of Members of Radiation Safety Team
6. List of Personnel in Charge of Traffic Control and Vehicle Pool

STUDY ASSIGNMENT:

- A. One of the best deterrents to the covert introduction of prohibited articles or unauthorized removal of special nuclear material (SNM) is personal recognition of all employees by security personnel. Since this may be difficult at sites with large employment rolls, security personnel, at least, should be familiar with the following:
1. Site Manager and "key" personnel.
 2. Employees designated as "Emergency Teams," including on-site and off-site armed response personnel.
 3. Special Nuclear Material (SNM) Accountability Officer.
 4. Person(s) charged with shipping/receiving.
 5. Person charged with vehicle pools/maintenance.
 6. Site employee truck drivers, utility equipment operators, yard workers and building custodians.

Obviously, the chain of command of the security organization is very important. It is essential that you understand to whom you are directly responsible. Remember that security personnel are not only a protective force but may also be the primary "Reporting Agency" in the event of emergencies.

- B. Review the study references.

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LESSON PLAN: 001—GENERAL ORIENTATION

TRAINEE STUDY PLAN: 001-2—Site Operations

CLASSROOM TIME: 60 minutes

STUDY REFERENCES:

1. Site Operations Manual
2. Definitions and Terminology

STUDY ASSIGNMENT:

- A. Security personnel should have a basic understanding of site operations. It is not necessary to know the details of operations, however, knowledge about the operation will better equip you to perform good vehicle access search procedures.

As an example, do you know if operational requirements demand that vehicles enter and leave the facility on a regular, scheduled basis or would this be an infrequent occurrence? Is the warehousing area located inside the Protected Area and is it normal for commercial vehicles to enter the area to make pickup and deliveries?

- B. To insure you understand the definitions and terminology used by the Nuclear Regulatory Commission, you should read and remember the following terms:

As used in Title 10 Code of Federal Regulations (CFR) Part 73.2:

Authorized Individual

Guard (Security Personnel)

Watchman

Continuous Visual Surveillance

Physical Barrier

Protected Area

Vital Area

Vital Equipment

Material Access Area

Isolation Zone

Intrusion Alarm

Lock

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Vault
Vault-type Room
Radiological Sabotage
Armed Response Personnel
Armed Escort
Security Management
Security Supervision
Strategic Special Nuclear Material
Formula Quantity
Transport
Incendiary Device
Controlled Access Area
Force
Stealth
Deceit

Title 10 Code of Federal Regulations (CFR) Part 70.4 includes the following additional definitions:

Commission
License
Produce
Special Nuclear Material
Sealed Source
Plutonium Processing and Fuel Fabrication Plant
Special Nuclear Material Scrap

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LESSON PLAN: 001—GENERAL ORIENTATION

TRAINEE STUDY PLAN: 001-3—Site Configuration

CLASSROOM TIME: 20 minutes

STUDY REFERENCES:

1. Site map showing Protected Area perimeter, site boundaries, and control points.
2. Site map showing roads and typical routes

STUDY ASSIGNMENT:

- A. Good security procedures usually designate one gate, guard-protected, for the entry and exit of vehicles. However, if a vehicle must enter or exit an access point that is not protected by a security station—who has the "authority" to permit its use? Shouldn't the security personnel who control the access point have all the items necessary to assure an adequate search?
- B. These are typical of the questions which should come to mind as you study your references and review the maps.
- C. Questions:

1. Why is it important to know site configuration and layout?

2. Are all access points security controlled?

TRAINEE STUDY PLAN:

3. What is a perimeter fence?

4. What are "isolation zones"? What are "controlled access areas"?

5. Can vehicles enter and/or exit the site from any access point? What is preferable?

6. Can security personnel open a LOCKED access point upon the request of a site employee?

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LESSON PLAN: 001—GENERAL ORIENTATION
TRAINEE STUDY PLAN: 001-4—Local Law Enforcement Act
CLASSROOM TIME: 20 minutes

STUDY REFERENCES:

1. Agreements with Local Agencies
2. Contingency Plans with Local Law Agencies
3. Authority of Security Personnel—Site Security Policy

STUDY ASSIGNMENT:

A. The responsibility and the authority of security personnel normally extend to the perimeter fence. Because circumstances and conditions may vary, your training officer will give you specific instructions in this area. Together, you should explore this responsibility and authority fully so there may be no misunderstanding.

B. Consider these:

Suppose you discover prohibited articles aboard a vehicle. The vehicle has stopped at the gate, but the driver is attempting to enter the site by deceit. What is your action?

Conversely, a plant employee attempts to exit the site with a small quantity of scrap special nuclear material. The employee is not authorized to do this, but the scrap is for the employee's son's "science fair project". What do you do?

TRAINEE STUDY PLAN:

In both of the cited situations, the primary responsibility is **yours**. You must detect and detain, until the proper authorities can be notified.

Consider another situation—A vehicle from within the site crashes through the gate and outside the perimeter. What is your action? Should you engage in pursuit?

This is a broad, interesting and very important session—give it a lot of attention.

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LESSON PLAN: 001—GENERAL ORIENTATION

TRAINEE STUDY PLAN: 001-5—Site Security plan

CLASSROOM TIME: 20 minutes

STUDY REFERENCES:

A. Study Assignments

1. Study Plans 001-1, 001-2, 001-3, and 001-4 (review).
2. Site and locale maps
3. Site security policies and procedures regarding vehicle access, control, and search

STUDY ASSIGNMENT:

- A. During this classroom period your training officer will review what has been covered during this General Orientation. Emphasis will be placed on the site security plan for vehicle access, control, and search.

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LESSON PLAN: 001—GENERAL ORIENTATION

TRAINEE STUDY PLAN: 001-6—Tour (Perimeter and Protected Area)

FIELD ORIENTATION TIME: 60 minutes

STUDY REFERENCES:

1. Site Maps

STUDY ASSIGNMENT:

- A. This is the first of a series of tours of the site which you will take as part of your training.
- B. The purpose of this tour is to familiarize you with the physical layout of the site, its perimeter, the Protected Areas, the roads normally used by most vehicles and those used for patrolling.

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B. TRAINING PLAN 002-SITE CHARACTERISTICS

CLASSROOM TIME: 90 minutes

FIELD ORIENTATION
TIME: 60 minutes

<u>STUDY PLAN NO :</u>	<u>SUBJECT:</u>	<u>TIME:</u>
002-1	<u>BUILDING OPERATIONS</u>	30 minutes
002-2	<u>PRODUCT FAMILIARIZATION</u> a. Special Nuclear Material Configurations b. Container Configurations	30 minutes
002-3	<u>VEHICLE OPERATIONS</u> a. Private Vehicles b. Site Support (1) Service/Maintenance (2) Special Nuclear Material Shipment c. Emergency & Other	30 minutes
002-4	<u>TOUR (OPERATING AREAS)</u> a. Material Access Areas b. Vital Areas	60 minutes

TRAINING AIDS:

Site maps
Building Floor Plans showing Access/Search points
"Mock" Material Configurations
Pictures of Special Materials, Containers and Vehicles

STUDY REFERENCES:

1. Title 10, Code of Federal Regulations, Part 73
2. Site Emergency Plan/Procedure

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LESSON PLAN 002—SITE CHARACTERISTICS

TRAINEE STUDY PLAN: 002-1—Building Operations

CLASSROOM TIME: 30 minutes

STUDY REFERENCES:

1. Site Map
2. Building Floor Plans with Vehicle Access Routes
3. Site Security Plan (Vehicle access and Search portions)

STUDY ASSIGNMENT:

- A. It is important that security personnel understand the vehicular traffic flow related to normal building operations in order to recognize any changes from what is normal procedure.

Building operations and vehicle traffic which you should be most concerned with are those in the Material Access Area, Vital Areas, storage vaults housing Special Nuclear Material and warehousing areas.

You should be familiar with the route a delivery vehicle would take from the entrance point to a warehouse. Any departure from this traffic pattern would be immediately suspect.

- B. On your site map identify the following: (Use colored pencils, if available.)

1. Material Access Areas
2. Vital Areas
3. Vaults
4. Warehouses

- C. On your site map mark the route for:

1. A typical Special Nuclear Material (SNM) delivery
2. A typical warehouse delivery
3. A typical route from the entrance point to the administrative area.

TRAINEE STUDY PLAN:

- D. Questions:

Define: (You may refer to definitions in your reference material.)

1. Material Access Area _____

2. Vital Area _____

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LESSON PLAN: 002—SITE CHARACTERISTICS
TRAINEE STUDY PLAN: 002-2—"Product" Familiarization
CLASSROOM TIME: 30 minutes

STUDY REFERENCES:

1. Typical Special Nuclear Material Configurations (Figure 1)
2. Typical Container Configurations (Figure 2)

STUDY ASSIGNMENT:

A. Special Nuclear Material Configuration

When we refer to the "product" we are talking about what we manufacture (or handle). You must become familiar with this product in order to accomplish a good search of outgoing vehicles.

From a practical standpoint it is important to note that Special Nuclear Material may come in particles, powder, metal disks, or cylindrical pellet form, as well as fuel rods and fuel assemblies. You should not be too concerned with color or shape. The radiation detection instrument you use to detect concealed Special Nuclear Material will assist you in this respect. (Instrument operation will be covered in a later Lesson). Note that a strategic quantity of special nuclear material would be about 11 pounds. The most concentrated form of plutonium and U235 may be up to 3" in diameter and weigh about 3 pounds. Typical fuel pellets are generally about 1/2 inch in diameter by 3/4 inch to 1-1/2 inch long. Powder or scrap forms would be difficult to identify without a radiation detection instrument.

B. Questions:

1. What is the nature and type of "product" material manufactured or handled at this site?

2. Examine the Mock Special Nuclear Material configurations on display (use Figure 1, Typical Special Nuclear Material Configurations) to identify each of the typical forms of Special Nuclear Material shown by placing one of the following terms by a similar illustration in Figure 1.

- a. Powder
- b. Metal Disc
- c. Cylindrical Pellet
- d. Fuel Rods
- e. Fuel Assemblies
- f. Scrap and Waste

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3. Should you be more concerned about identifying these products during (check one)

_____ Incoming search?
_____ Outgoing Search?

C. Container Configurations

Due to its nature, special nuclear material must be shipped in special containers of various configurations. Some of the special nuclear material containers (Figure 2) are "hand portable," some are designed specifically for handling irradiated fuels and others are utilized to seal and secure unirradiated materials for in-house storage, processing or shipping. The physical characteristics are indicated in terms of size and configuration.

- Container "A"— Made of stainless steel, approximately 10 inches high, 8 inches in diameter.
- Container "B"— Made of steel using a 5 inch threaded pipe nipple and two 5-inch caps (standard hardware). Some varieties have a "U" welded to the side of the nipple to facilitate chaining the container down.
- Container "C"— Tinned sheet iron with the contents "canned" on site for storage and holding purposes.
- Container "D"— A steel drum with a bolted lid (of several sizes).
- Container "E"— Made of steel, (of several designs), approximately 3 feet high and 3 feet in diameter.
- Container "F"— A standard 55-gallon steel drum with bolted lid. Similar configurations include extended versions (from 6 inches to 2 feet with parts of drums welded together). A loaded drum may weigh as much as 400 pounds.
- Container "G"— A variety of aluminum cans with an average height of 6 inches and a diameter of 4 inches.
- Container "H"— An extended version of "B" (a 5 inch diameter pipe nipple approximately 4 feet long).
- Container "I"— Casks (8 to 15 feet in length).
- Container "J"— A one gallon aluminum jug with an aluminum lid.
- Container "K"— An aluminum box (tray) approximately 4 x 5 inches square by 24 inches long.
- Container "L"— Small plastic bottles in a variety of sizes (mostly 4 inches high).

Many containers for special nuclear material are not particularly distinctive or recognizable. In many cases typical containers are small enough to readily conceal several kilograms of material in or on vehicles. Substitute containers can be produced from readily available material. Many containers are fabricated from common hardware, materials or containers.

Is it possible that special nuclear material could be removed in any other type of container? Good visual search procedures will enable you to recognize the normal containers and be suspicious of any others. When searching vehicles, be certain to make good use of your special nuclear material detector. If you get an alarm STOP EVERYTHING until appropriate action is taken.

NOTE: Be suspicious of any vehicle with no apparent heavy load which sets low on its springs.

I. Questions:

1. Refer to Figure 2. Circle those containers shown which may be typical to your site operations.
2. Could someone remove special nuclear material from the site in **any** kind of container? Give one or two examples.

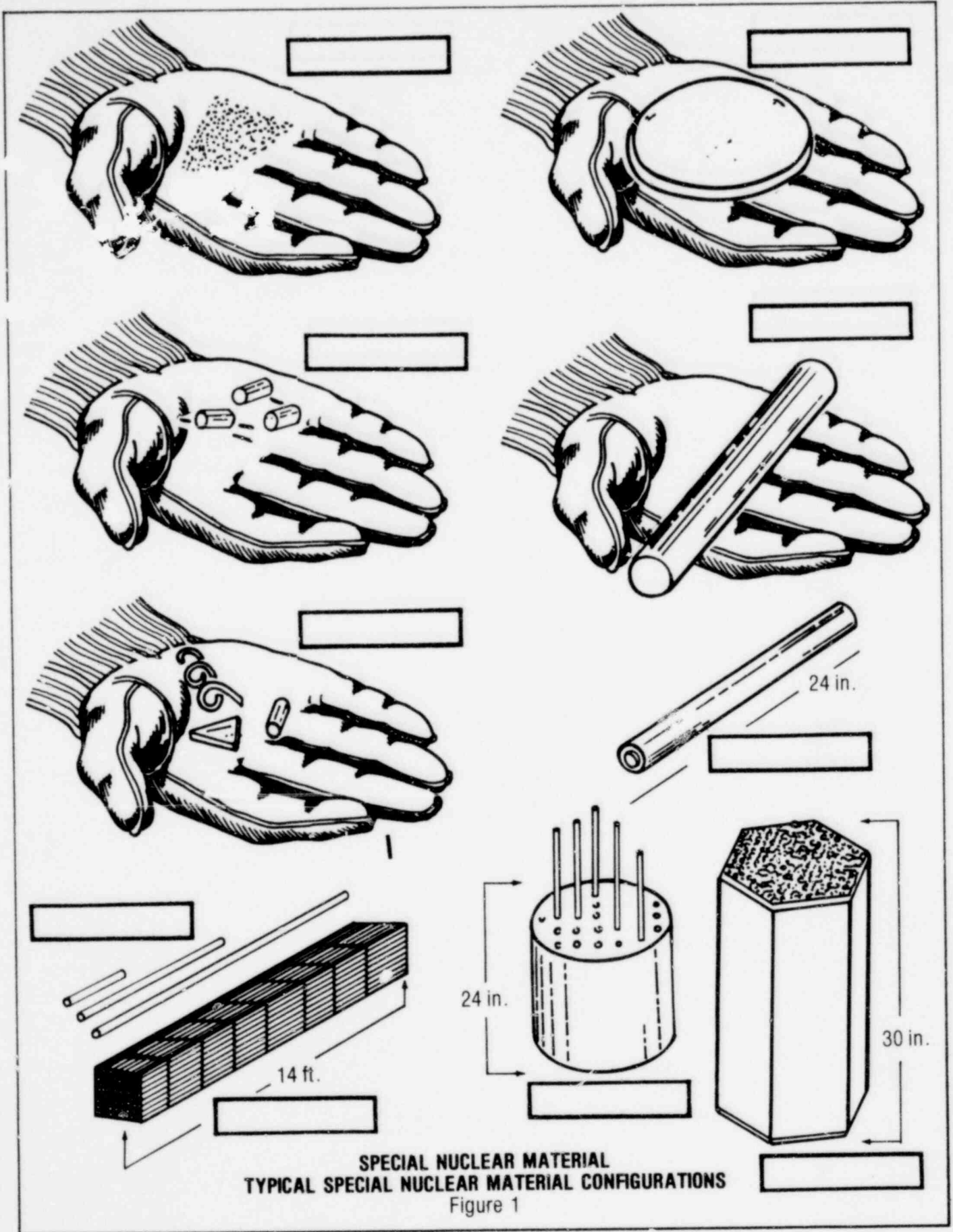
3. What is the best method of detecting unauthorized removal of special nuclear material?

4. What is the typical marking used on containers to identify the contents as being radioactive?

5. What action should you take if our detector "ALARMS" during the search of a vehicle?

E. Discuss your answers to the above questions with your training officer.

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SPECIAL NUCLEAR MATERIAL
TYPICAL SPECIAL NUCLEAR MATERIAL CONFIGURATIONS

Figure 1



Type A



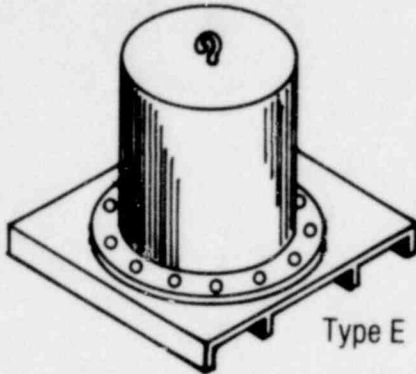
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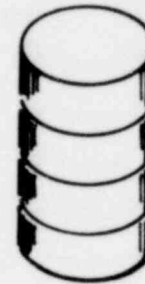
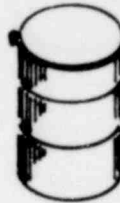
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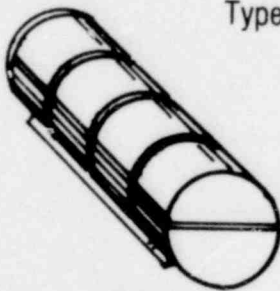
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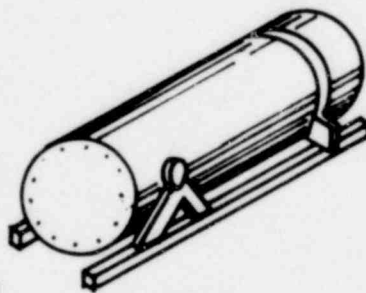
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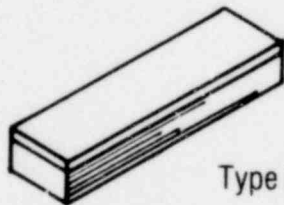
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Type K



Type L

TYPICAL CONTAINER CONFIGURATION

Figure 2

LESSON PLAN: 002—SITE CHARACTERISTICS

TRAINEE STUDY PLAN: 002-3—Vehicle Operations

CLASSROOM TIME: 30 minutes

STUDY REFERENCES:

1. Title 10, Code of Federal Regulations, Part 73
2. Site Vehicle Operations Procedures
3. Site Emergency Plan/Procedure
4. Passenger/Cargo Vehicle Configurations (Figure 3)
5. Special Purpose Vehicle Configurations (Figure 4)

STUDY ASSIGNMENT:

- A. Vehicle traffic depends on the size, operating layout and function of particular operations. Traffic into the Protected Area is dependent on the shipping and receiving location (which may be inside or outside of Protected Areas). Traffic into Vital and Material Access Areas should be very restricted or non-existent and limited to receipt or shipping of Special Nuclear Material or reactor fuel.

Vehicles have a history of use for concealment of contraband. Vehicle control is concerned with private and commercial vehicles which have periodic access, those which are site-owned with frequent access and those which typically remain within the site. Vehicles are capable of concealed transport of explosives or incendiary material. Vehicles have places to hide or disguise firearms, hide unauthorized personnel and all have locations which could be "shielded" to preclude detection of special nuclear material.

Firearms can be hidden on vehicles in locations which cannot always be detected by visual or electronic search. Metal detectors are of little value in certain areas of concealment due to the metal content of the vehicle itself.

Special Nuclear Material in appropriately shielded or unshielded containers can also defy physical/visual/Special Nuclear Material detector search. This depends on the amount of Special Nuclear Material, the type and quantity of shielding, the distance from the probe during the search and the sensitivity of the detection equipment.

- B. Private Vehicles

Those vehicles an employee or visitor might use for transportation to and from his work. They can be sedans, pickups, motorcycles, or vans and their movement is normally limited to a designated parking area. If allowed within the Protected Area, prior approval and stringent access and search controls should be applied.

C. Site Support Vehicles

Site Support Vehicles required in the operation and servicing of fuel cycle facilities and reactor facilities vary in terms of their functions, traffic volume, search patterns, and concealment capabilities. Typical vehicle-related activities within Protected, Material Access, and Vital Areas are:

- Shipping and Receiving—(special nuclear material, nuclear/non-nuclear supplies and equipment)
- Construction
- Refuse Removal and Disposal (nuclear/non-nuclear)
- Vending and Cafeteria Supply and Service
- Bulk Deliveries (gas cylinders, fuel,)
- Security Patrols
- Personnel Conveyance (official business)
- Material Handling
- Emergency Response (fire, ambulance, utilities, communications)
- Road, Yards and Grounds Maintenance
- Routine Communication Services
- Equipment Services

Many of these functions are performed by outside commercial vendors and suppliers, contractors, and trucking firms in addition to employees of the Licensee.

To accomplish the routine and special functions peculiar to the various sites, a variety of vehicles may have access to Protected Areas, Material Access Areas and Vital Areas. These include sedans, station wagons, 4-wheel drive vehicles, many configurations of trucks (from pickups to 18 wheel tractor/trailer units), forklifts, material handling equipment, heavy construction equipment, railroad rolling stock, special purpose vehicles such as fuel cask trailers, Safe Secure Truck/Trailers, high pressure (liquid) gas trucks, fuel oil tank trucks, refuse trucks and emergency vehicles.

D. Special Nuclear Material Shipments

A Special Nuclear Material Shipment may be moved via Safe Secure Trucks/Trailers, rail cars, or other modes which have specific approval. If they are operated under the auspices and protection of Government employees and couriers, site security personnel may have no authority to search such vehicles. But there is a responsibility to assure the shipment is genuine and that security seals are intact and proper release authority has been obtained.

1433 041

E. Emergency and Other Vehicles

Entry and exit past the Protected Area perimeter may be allowed for emergency vehicles such as fire fighting equipment, ambulances, emergency medical life support vehicles and law enforcement agencies.

F. Questions:

1. Refer to Figure 3, Vehicle Configurations. Which of these vehicles routinely operate within this site? Circle each one in Figure 3. Be prepared to answer your Training Officer's questions about these vehicles.
 - a. When did you last see such a vehicle?
 - b. What visible identification markings did it have? (Color, company/owner markings, etc.)
 - c. Where did it go?
 - d. How long did that vehicle remain on site?
2. Refer to Figure 4, Special Purpose Vehicle Configurations. Which of these are currently operating on this site? Circle each one you so identified on the chart. Be prepared to answer your training officer's questions about these vehicles.
 - a. Where did you see such a vehicle?
 - b. What activity was involved with the vehicle?
 - c. What visible identification markings did it have which would enable you to distinguish it from other like kind of vehicles?

3. Define:

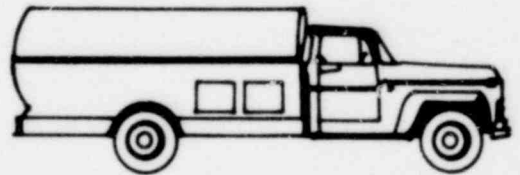
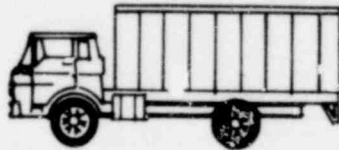
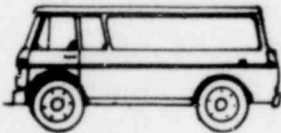
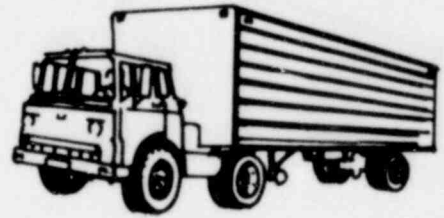
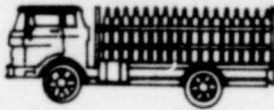
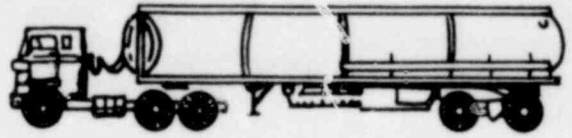
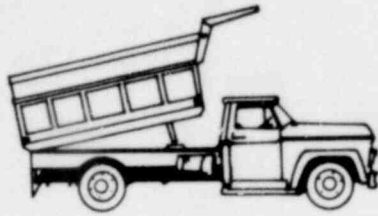
a. Private vehicle:

b. Site support service/maintenance vehicles:

c. Site support SNM shipment vehicles:

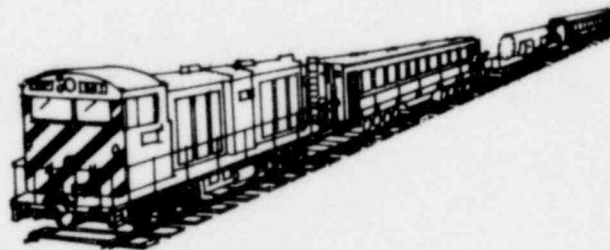
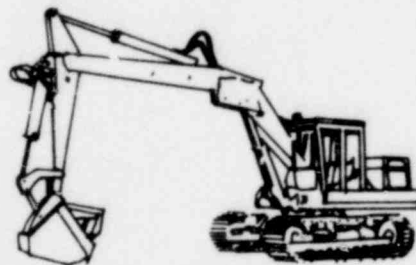
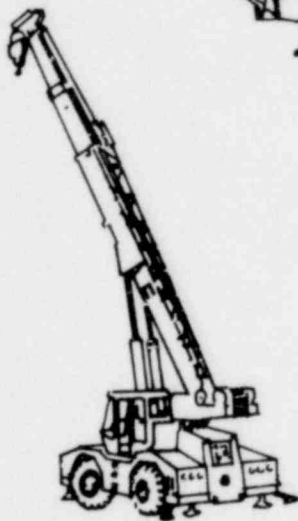
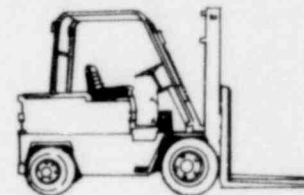
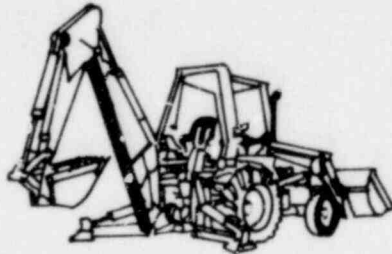
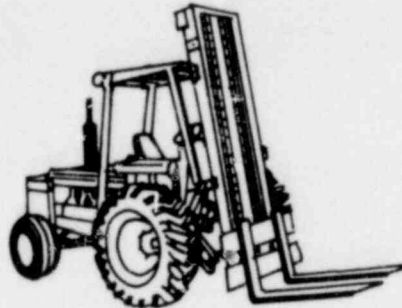
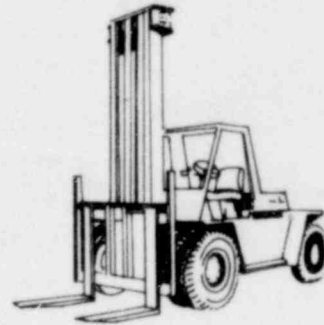
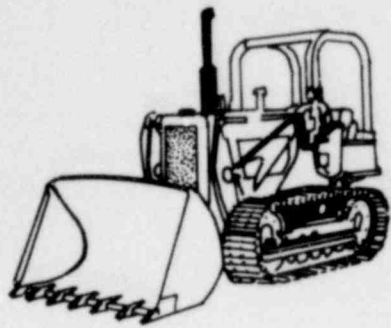
d. Emergency vehicles:

G. Review your answers to the above with your training officer.



**PASSENGER/CARGO VEHICLE CONFIGURATIONS
TYPICAL CHASSIS/BODY STYLES AND UNITS**

Figure 3



**SPECIAL PURPOSE VEHICLE CONFIGURATIONS
SERVICE VEHICLES/EQUIPMENT REQUIRED AT
REACTOR AND FUEL FACILITIES**

Figure 4

LESSON PLAN: 002—SITE CHARACTERISTICS
TRAINEE STUDY PLAN: 002-4—Tour of Operating Areas

CLASSROOM TIME: None

FIELD ORIENTATION: 60 minutes

STUDY REFERENCES:

1. Site Map (from Lesson 002-1)
2. Site Map, (Material Access Areas and Vital Areas)
3. Typical Special Nuclear Material Configurations (Figure 1)
Typical Container Configurations (Figure 2)

STUDY ASSIGNMENT:

- A. This tour of the operating areas will enable you to actually see what you studied throughout this lesson.
- B. You will be able to confirm the results of your study by comparing your various worksheets (site/area maps, special nuclear material/container charts) with the actual conditions.
- C. Look, learn, compare, ask questions. Observe and think in terms of vehicles operating within the Protected Area and your job in controlling vehicle access.

Your next Lesson will cover vehicle-related threats and a field orientation tour of vehicle locations and use and traffic areas.

1433 046

C. TRAINING PLAN 003— VEHICLE-RELATED THREATS

CLASSROOM TIME: 120 minutes

FIELD ORIENTATION
TIME: 60 minutes

<u>STUDY PLAN NO.:</u>	<u>SUBJECT:</u>	<u>TIME:</u>
003-1	<u>VEHICLE ACCESS</u>	30 minutes
003-2	<u>VEHICLE ACCESS CONTROL POINTS</u> a. Gates and Fences b. Guard Posts c. Protective Equipment/Devices	30 minutes
003-3	<u>VEHICLE-RELATED THREAT POTENTIAL</u> a. Sabotage b. Theft of Special Nuclear Material c. Public Impact d. National Impact	30 minutes
003-4	<u>CHARACTER OF THREATS</u> a. General (Sabotage and Special Nuclear Material Theft) b. Adversaries c. Explosives/incendiaries d. Firearms e. Tools and Equipment f. Vehicles as Intrusion Devices	30 minutes
003-5	<u>FIELD ORIENTATION (SITE TOUR)</u> Vehicle Locations and Use Truck and Tractor Service Vehicles Construction Equipment Rail Cars <u>TRAFFIC AREAS</u> Roads Parking Areas Entry Points (Normal and Emergency)	60 minutes

TRAINING AIDS:

Selected by Training Officer

STUDY REFERENCES:

Selected by Training Officer

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LESSON PLAN: 003—VEHICLE-RELATED THREATS

TRAINEE STUDY PLAN: 003-1—Vehicle Access

CLASSROOM TIME: 30 minutes

STUDY REFERENCES:

1. Vehicle Traffic Patterns. (Figure 5)
2. Site Vehicle Operations Procedures

STUDY ASSIGNMENT:

- A. If all vehicles were denied access to reactor sites and fuel cycle facilities, the objective of preventing the introduction of sabotage elements and the theft of special nuclear material via vehicle would be achieved. Actually, it is necessary to allow access to certain vehicles. The objective then becomes doing everything possible to minimize or control vehicle access.
- B. Vehicle access should be permitted only for missions specifically requiring vehicles.
- C. Vehicle access authorization to Material Access/Vital Areas should be validated by two designated employees.
- D. All vehicles which are parked unattended should be locked.
- E. Occupancy of vehicles authorized within the Protected Area should be restricted to the minimum required to accomplish the mission.
- F. Vehicles authorized inside the Protected Area must be searched. Vehicle occupants should be required to step out of the vehicle while it is being searched.
- G. Vehicles driven by a site employee inside the Protected Area should have proper escort/authorization.
- H. Vehicles operated by non-site employee inside the Protected Area should be escorted by two site employees, one of which is an armed Security person.

1433 050

Entry
Unauthorized Personnel
Unauthorized Weapons
Unauthorized Explosives
Other Threats

Portals
Procedures

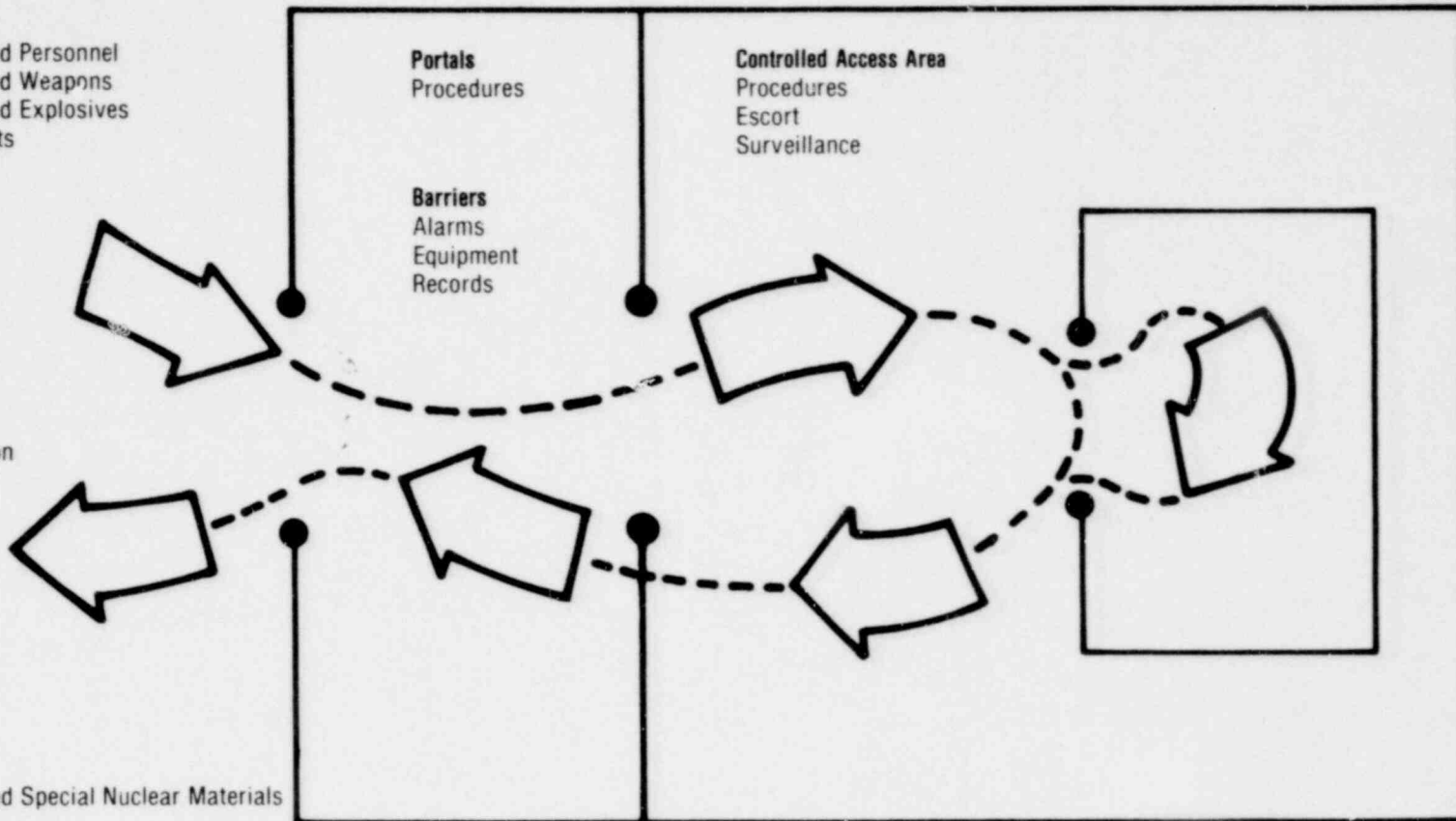
Controlled Access Area
Procedures
Escort
Surveillance

Barriers
Alarms
Equipment
Records

Vehicles
Types
Frequency
Purpose
Authorization

Exit
Unauthorized Special Nuclear Materials

Perimeter
Procedures
Barriers
Patrols
Alarms



VEHICLE TRAFFIC PATTERNS

Figure 5

LESSON PLAN: 003—VEHICLE-RELATED THREATS

TRAINEE STUDY PLAN: 003-2—Vehicle Access Control Points

CLASSROOM TIME: 30 minutes

STUDY REFERENCES:

1. Site Map
2. Security Plan (portion of Site Operational Manual.)

STUDY ASSIGNMENT:

- A. It is most important that you as a member of our security personnel generally understand the layout of this site, its outside perimeter, security fences, all authorized entry points, security posts and patrol routes. You must possess a working knowledge of all protective equipment and/or devices which you may use or be assigned to for both normal and emergency operations.
- B. Identify each patrol from the security plan and state its primary mission.
- C. On your site map, locate each security post.
- D. Name and locate the protective equipment discussed.

1433 052

LESSON PLAN: 003—VEHICLE-RELATED THREATS

TRAINEE STUDY PLAN: 003-3—Vehicle Related Threat Potential

CLASSROOM TIME: 30 minutes

STUDY REFERENCES:

1. Training officer-selected current and historical event articles from news media.

STUDY ASSIGNMENT:

- A. Bombing incidents have drastically increased in the past 10 years. During 1976, 257 bombing incidents involved public utilities. These are measures of dissident terrorist activity. With this undesirable element we must be constantly aware of the high potential for such an incident.

Radiological sabotage (resulting in the scattering of radioactive material) would have tremendous public reaction.

The theft of Special Nuclear Materials could conceivably result in a hostage demand.

- B. Assuming that there is the possibility of a bomb threat—then our next consideration is how the threat would be carried out. The vehicle is a likely device for an adversary action. This training program addresses how you can sharpen your ability to defeat such an attempt.

1433 054

LESSON PLAN: 003---VEHICLE-RELATED THREATS

TRAINEE STUDY PLAN: 003-4—Character of Threats (Vehicle)

CLASSROOM TIME: 30 minutes

STUDY REFERENCES:

1. NUREG/CR-0484 Vehicle Access and Control Planning Document (selected portions designated by training officer).

STUDY ASSIGNMENT:

- A. For you to competently carry out your job, you need to have a concern for and an understanding of the potential of the threat involved with vehicles.
- B. Vehicles have many potential hiding places for transport of explosives, firearms and incendiaries into a plant site and for the unauthorized removal of special nuclear material. The possibilities are limited only by the imagination of the individual attempting to deceive you. You must use your imagination to counter his efforts.
- C. Vehicles can also be used to transport adversaries for the purposes of sabotage of facilities or theft of Special Nuclear Material.
- D. Questions:
 1. Why should you be careful in permitting vehicles passing in and out of Material Access Areas, Vital Areas and Protected Areas?

1433 056

LESSON PLAN: 003—VEHICLE-RELATED THREATS

TRAINEE STUDY PLAN: 003-5—Field Orientation

FIELD ORIENTATION

TIME: 60 minutes

STUDY REFERENCES:

1. Vehicle Operations Section of Site Operations Manual.
2. Site map.

STUDY ASSIGNMENT:

- A. The tour will provide an opportunity to observe normal vehicle use areas. Look for specific situations involving construction projects.
- B. Note the various types of vehicles which may be "captive" within the Protected Area.
- C. Become familiar with the identifying characteristics of site vehicles.
- D. Note entry and exit points for service vehicles.
- E. Observe any situations applicable to rail traffic.

F. Questions:

1. In your own words, generally describe vehicle operations on the site. (This may be an oral exercise)

2. In your own words, describe the site mission as related to vehicle operations. (This may be an oral exercise)

- G. Discuss the above with your Training Officer.

1433 058

D. TRAINING PLAN 004—CONCEALMENT OF WEAPONS, EXPLOSIVES
INCENDIARIES & CONTRABAND

CLASSROOM TIME: 120 minutes

FIELD ORIENTATION
TIME: 60 minutes

<u>STUDY PLAN NO.:</u>	<u>SUBJECT:</u>	<u>TIME:</u>
004-1	<u>CONTRABAND CONFIGURATIONS</u>	60 minutes
004-2	<u>CONCEALMENT POSSIBILITIES</u> a. Explosives b. Weapons c. Incendiaries d. Special Nuclear Material & Shielding Potential e. Other (tools, etc.)	30 minutes
004-3	<u>EQUIPMENT FAMILIARIZATION</u> a. Physical Search b. Electronic Detection c. Field Work (demonstration)	30 minutes 60 minutes

TRAINING AIDS:

Special Nuclear Material Calibration Sources
Explosives Devices (mock-ups)
Tools (typical items)
Site-used Search Equipment

STUDY REFERENCES:

Selected Manufacturer's Data on Site-Used Search Equipment.

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LESSON PLAN: 004—CONCEALMENT OF WEAPONS, EXPLOSIVES,
INCENDIARIES & CONTRABAND

TRAINEE STUDY PLAN: 004-1—Contraband Configurations

CLASSROOM TIME: 60 minutes

STUDY REFERENCES:

Figures 6 through 16

STUDY ASSIGNMENT:

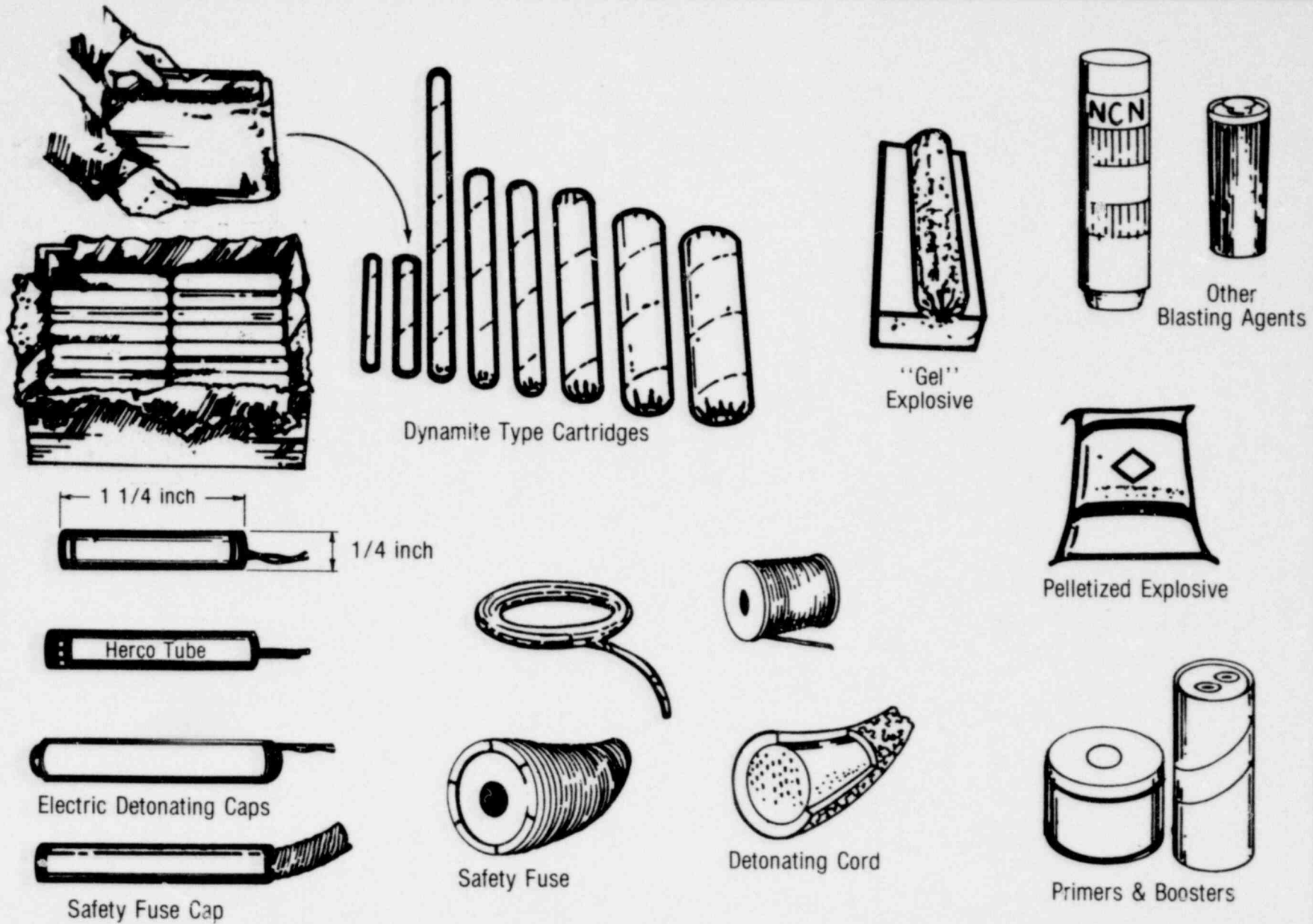
Various studies and references provide the following pertinent quotations:

- "90% of all sabotage is based on some sort of demolition or booby traps."
- "Contrary to popular opinion, neither commercial explosives nor blasting caps are necessary for the construction of bombs . . . bombing is a simple and inexpensive game that anyone can play."
- "A bomb prepared elsewhere can be installed on/in a vehicle in a matter of seconds."
- "In 1976, almost 200,000 pounds of explosives and blasting agents and 29,000 blasting caps were reported as stolen."
- "The average size of a bomb is 1.5 kilograms (approximately 3 pounds)."
- "Only 30-50% of bombs are dynamite."

Types, sources and configurations of explosives and incendiaries are almost infinite. Explosives and incendiaries may be solids, powders, plastics, pellets or liquids. This permits them to be disguised, packaged and hidden in a variety of ways.

Although registration is typically required, commercial explosives are readily available for purchase or they may be stolen from locations such as construction, mining, quarry and road building operations. Such explosives include sticks, cartridges, bags of free running pellets, liquid gels and booster canisters. Detonators for these explosives include electric blasting caps, safety fuse blasting caps and combinations of detonating cord and "boosters" for explosives which are more difficult to detonate. (Figure 6).

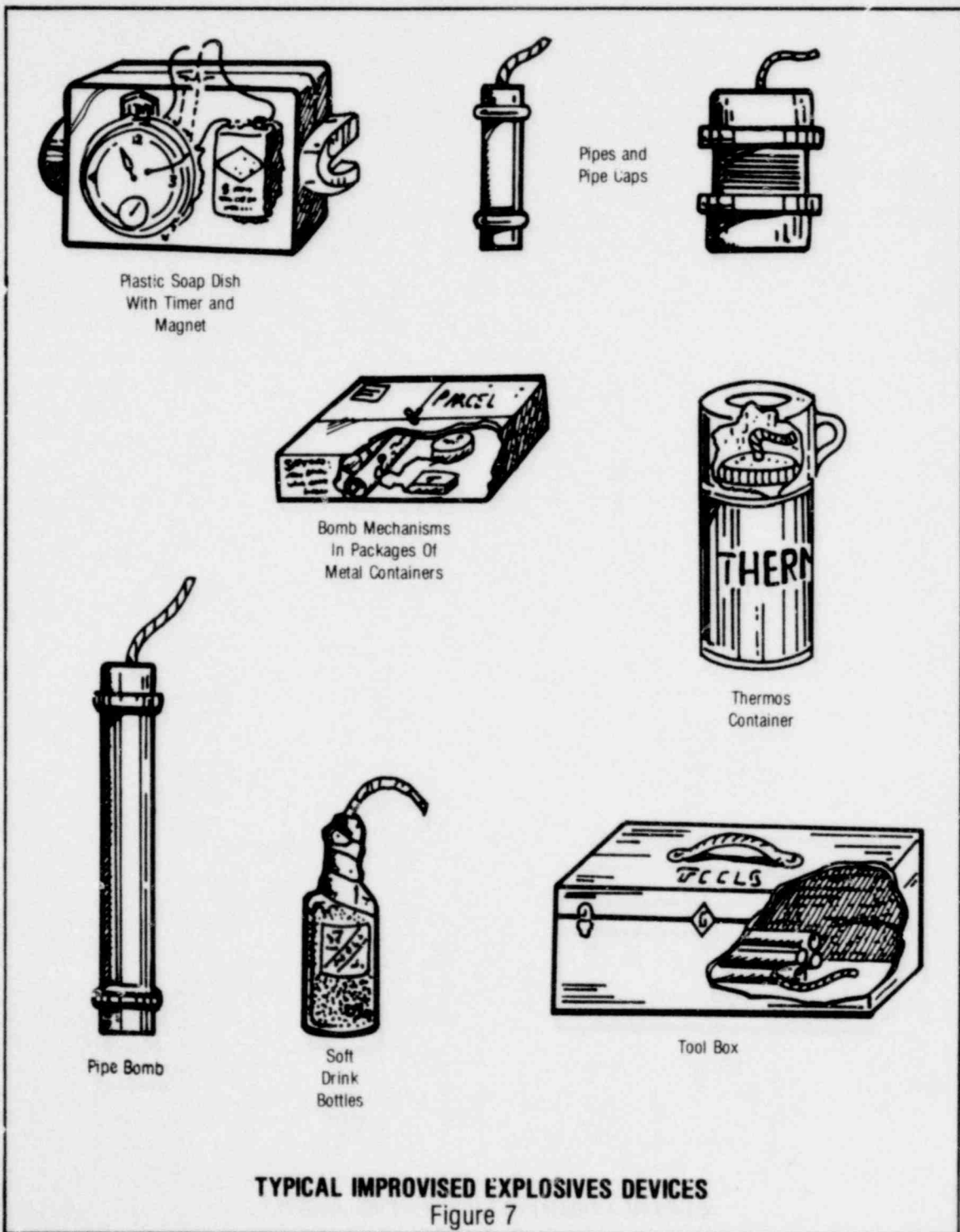
1433 062



TYPICAL COMMERCIAL EXPLOSIVES

Figure 6

Igniters/detonators for improvised explosives include commercial and military electric and safety fuse caps and other fusing mechanisms of an improvised nature. Flashlight bulbs, photo flash bulbs, percussion primers derived from cartridges, shells or percussion caps, fuses from fireworks, hobby rocket fuse, or improvised fuses of treated cord and cigarettes may be used. Improvised explosives utilize various common containers such as soft drink bottles and sections of common pipe. Some of these are illustrated in Figure 7.



Improvised incendiaries occur in a variety of forms and may be made from commercially available containers such as gasoline cans and soft drink bottles filled with flammable substance. Many incendiaries exist in ready and innocent form needing only a detonation device or method to make them usable (gasoline for example). (Figure 8).



Gasoline Container



Gasoline Can
With Detonating Cord



Glass Bottle
With Rag Fuse

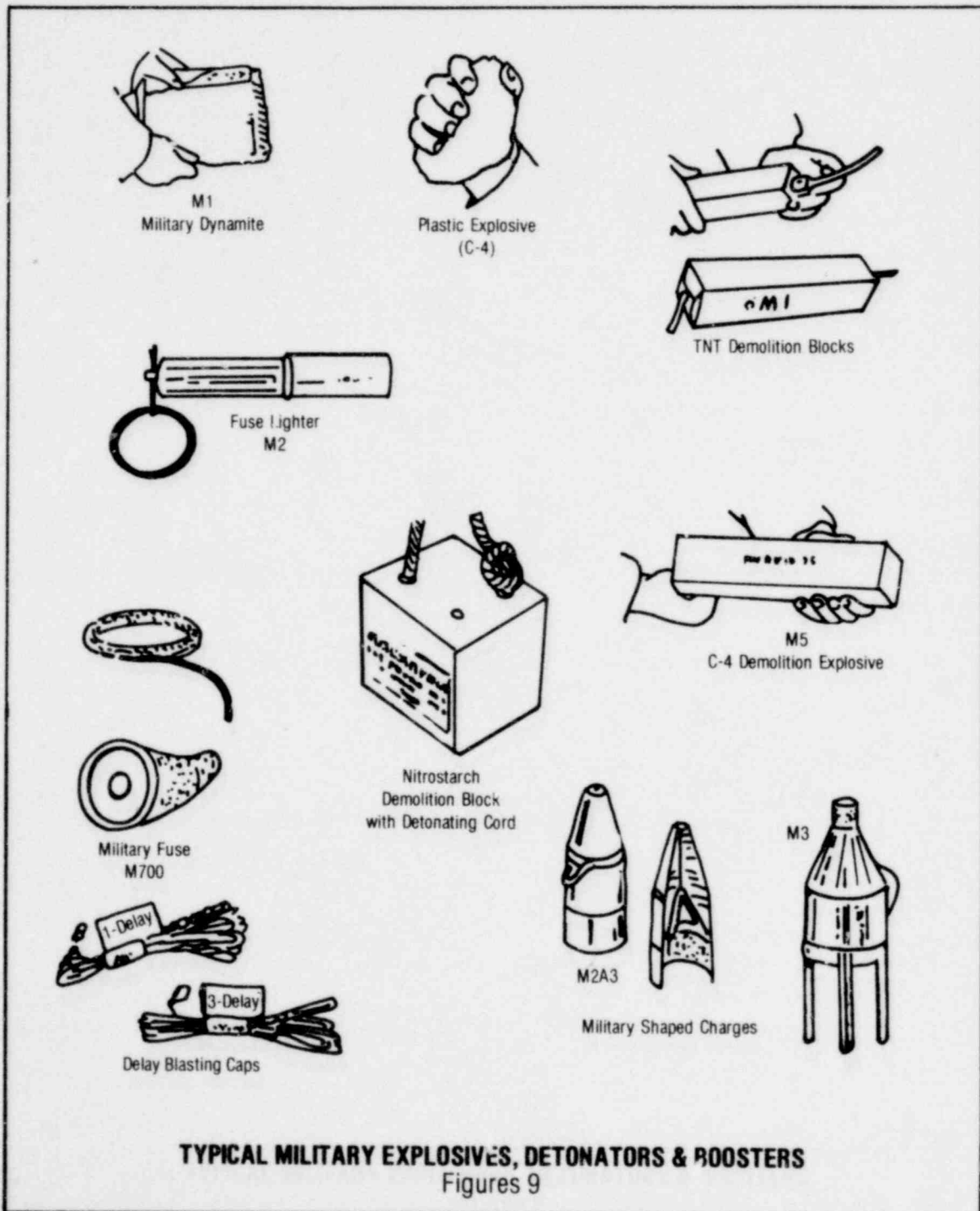


Sterno Can
With Fuse
(Cherry Bomb)

TYPICAL IMPROVISED INCENDIARY DEVICES

Figure 8

Military explosives include blasting and demolition charges, grenades, bombs, artillery projectiles and mines. The configuration of some explosives may be modified for concealment or disguise (particularly the plastic explosive C-4 and PETN Sheet). Blasting and demolition explosives used by the military typically are in the form of "sticks," cartridges, blocks, plastics (putty-like) and sheets. (Figure 9).



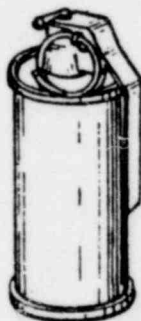
Hand grenades are encountered in several configurations, typically consisting of a container, fuse and explosives/contents. These may be intended for fragmentation, chemical dispersal, smoke, incendiary or illumination. Military grenades are not available except on the black market. However, grenades of various configurations are manufactured for law enforcement agencies. (Figure 10).



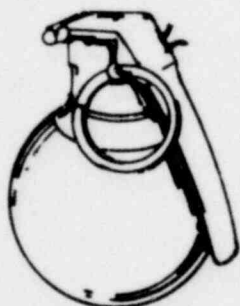
MK2
Fragmentation



M26
Fragmentation



Incendiary, Chemical
Smoke, Napalm, etc.



M33
Fragmentation

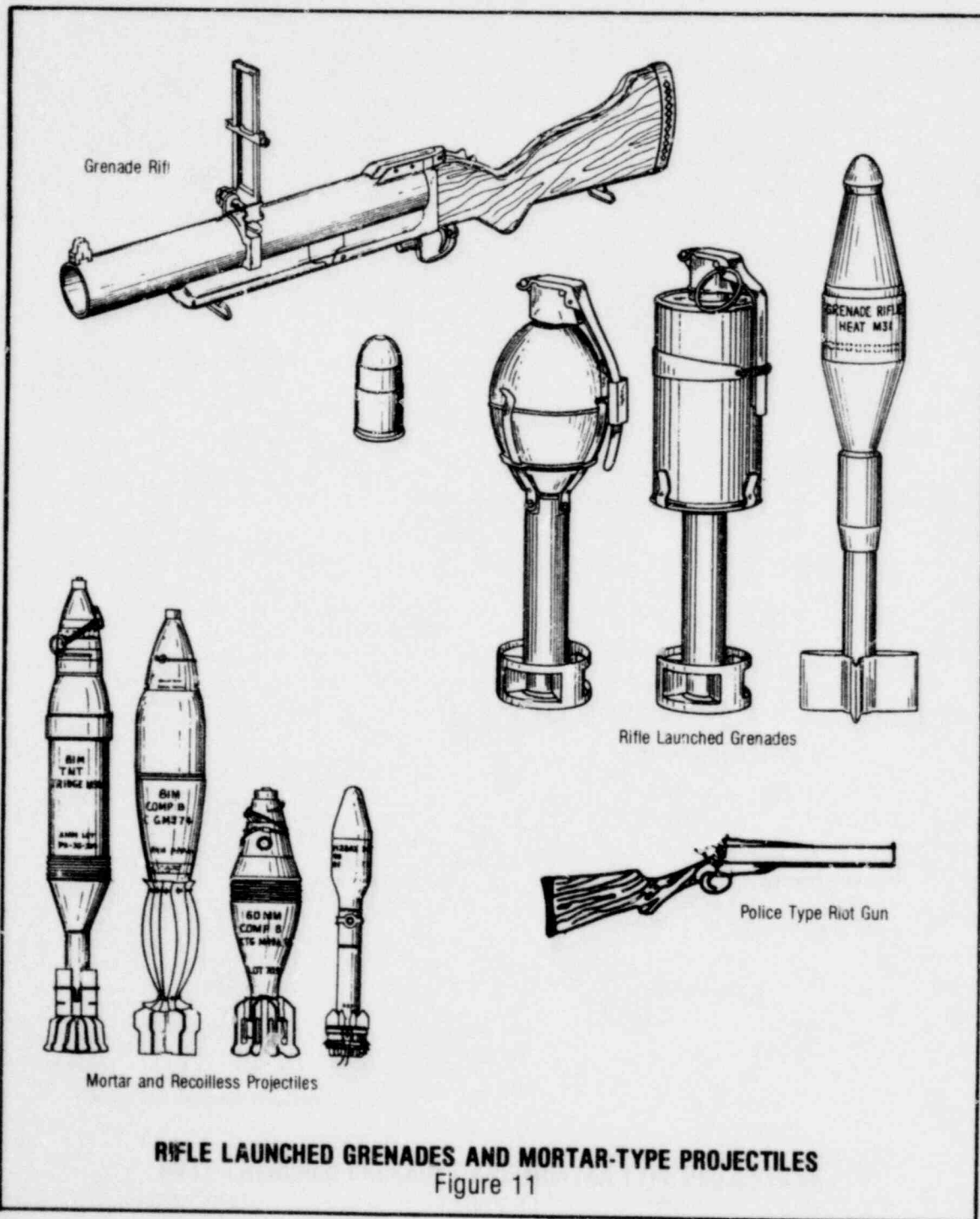


M25A2
Chemical

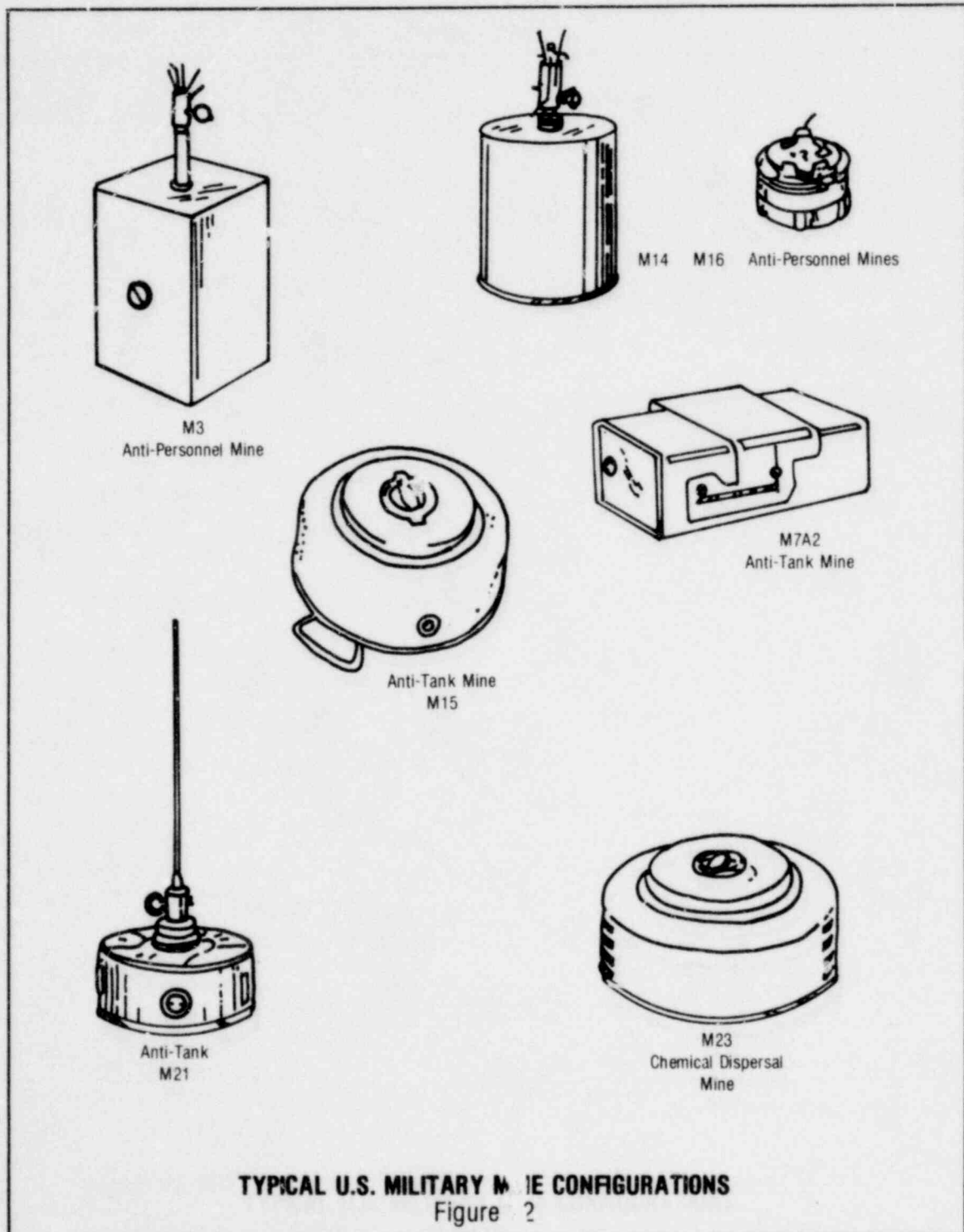
TYPICAL U.S. MILITARY HAND GRENADE CONFIGURATIONS

Figure 10

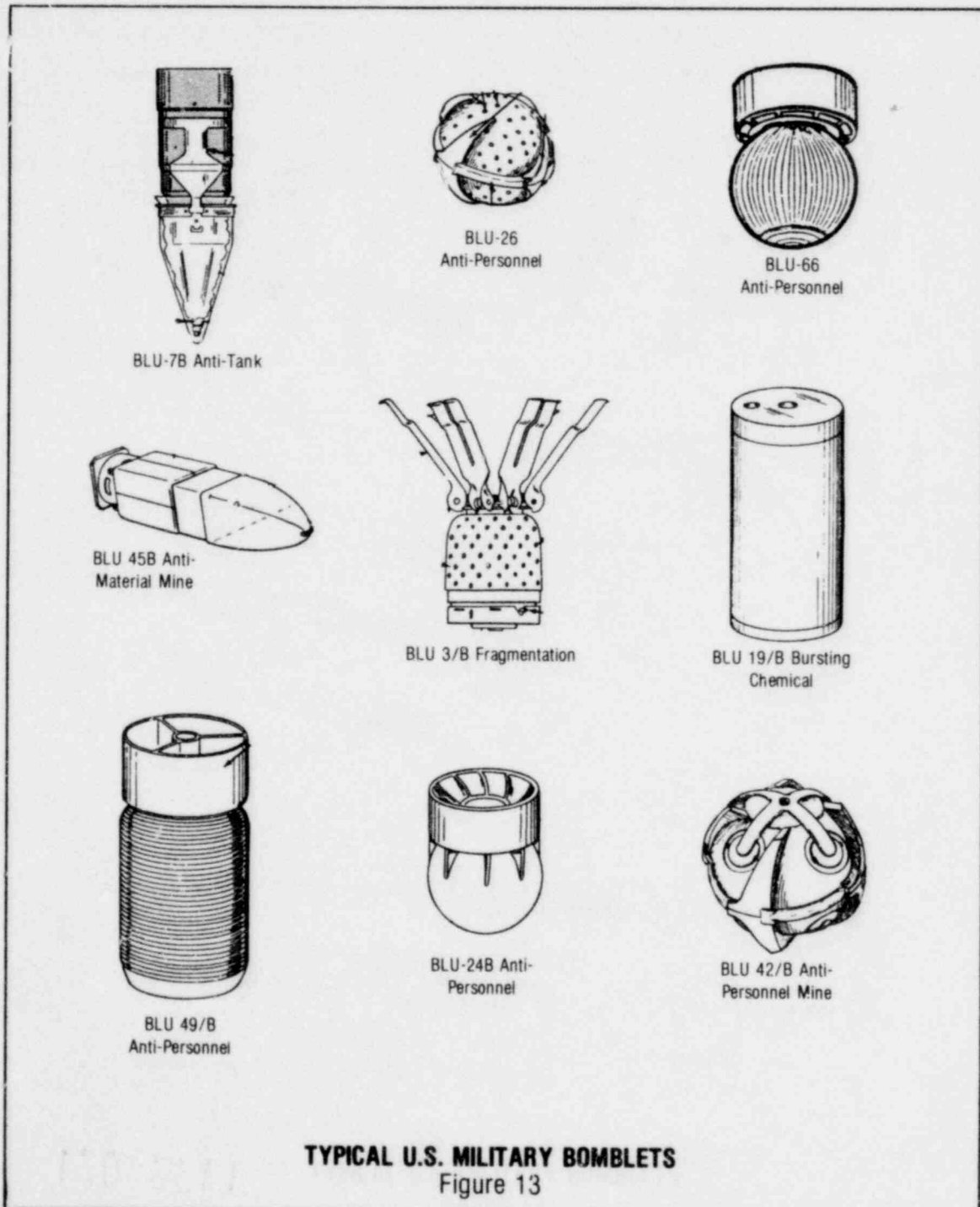
Rifle grenades and mortar rounds can be launched by rifle, pistol or shotgun. They generally consist of a device with a stabilizer or tail fin assembly which may be removable. As with hand grenades, the purposes of these are fragmentation, smoke, chemical, illumination or incendiary. Grenade rifles and police-type 37/38mm riot guns which project gas projectiles are included in this group. Devices also include mortar rounds which are approximately 2 inches in diameter by 10 inches long. (Figure 11).



Mines range from the anti-tank mine (approximately 13 inches in diameter by 5 inches high) to small anti-personnel mines (approximately 2-3/16 inches in diameter by 1-1/2 inches high). Most mines are either fragmentation for anti-personnel purposes or shaped charges for anti-tank/vehicle purposes. (Figure 12).



Military bombs, bomblets, rocket projectiles and artillery projectiles are made in many sizes and shapes. Bomblets are used for chemical dispersion, fragmentation, smoke, multi-purpose and anti-tank purposes. Sizes range from 2¾ inches in diameter by 5 inches high to about 5 inches in diameter by 14 inches long, thereby making them readily portable. (Figure 13).



All types of firearms are available to terrorists through the blackmarket, by theft from military installations and law enforcement agencies, or by terrorist manufacture. Many of these, such as machine guns, antitank weapons, sawed-off shotguns, are illegal. Others, including pistols, revolvers, shotguns, sporting rifles, semi-automatic weapons, are readily available from sporting goods stores, either purchased or stolen. Small pistols and revolvers (5 inches overall and approximately 10 ounces) are easy to conceal and difficult to detect in a vehicle. Shotguns may have stocks and barrels sawed off for easier concealment. Automatic weapons with removable shoulder stocks are easily hidden in spaces less than 10 inches in length. (Figure 14). In addition to standard firearms, there are oddities: firearms disguised as canes, umbrellas and pens.



TYPICAL FIREARMS
Figure 14

1433 071

Miscellaneous Weapon Devices, Tools and Equipment

Many lethal and non-lethal items are "weapons of opportunity." "Weapons" may include a piece of pipe, board, wrench, chemicals, short sticks or other common and apparently "innocent" items. Devices in this category include clubs, knives, electric cattle prods, brass knuckles and aerosol or cartridge tear gas devices. (Figure 15).

Miscellaneous potential weapon devices may be concealed or appear as innocent items unless positive search measures are employed. Personal items, souvenirs and household utensils may be overlooked unless recognized for their potential as threat mediums. Household products in aerosol pressure cans (hairspray, lubricants, furniture polish) readily become flamethrowers by simply igniting the spray.



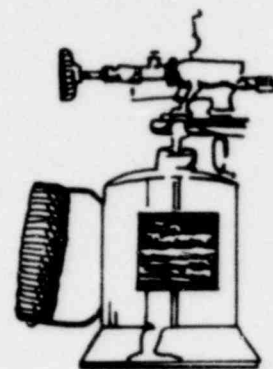
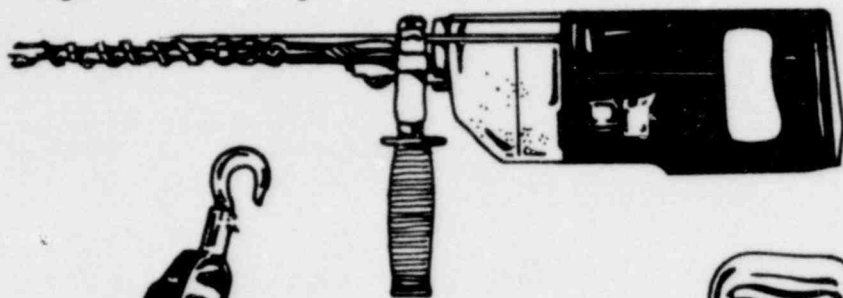
Tools which may be a part of maintenance or operating functions might deliberately be acquired for adversary purposes. Some tools require transport by vehicle because of their size, weight, power requirements, inability for concealment, etc. Some of the more common type tools of concern are listed below and depicted in Figure 16.

- Drills (Electric, Pneumatic and Hand)
- Sledge Hammers and Mauls
- Burning Bar
- Torches (Gasoline, Oxy-acetylene, etc.)
- Pneumatic Jack Hammers
- Rams and/or Pinch Bars
- Ring Saw
- Chain Saws/Circular Saws
- Hand Saws
- Saber Saws
- Bolt Cutters
- Rescue Devices
- Block and Tackle
- Axes/Hatchets

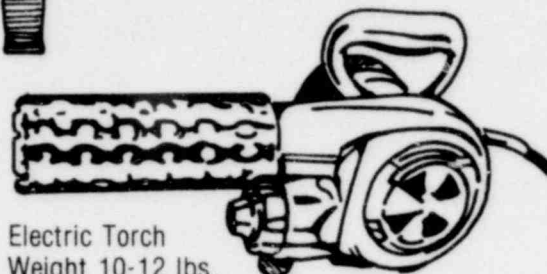
Although the above articles are not necessarily prohibited tools and equipment, they should be checked for authorization if they are to be permitted inside the Protected Area. The authorization should preferably be a current one signed by the supervisor of the person having custody of the tool.

1433 073

Rotary Hammer
Weight: 11.5 lbs. Length: 14.5 inches



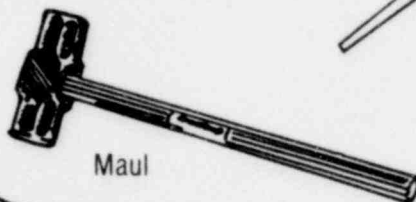
Blow Torch



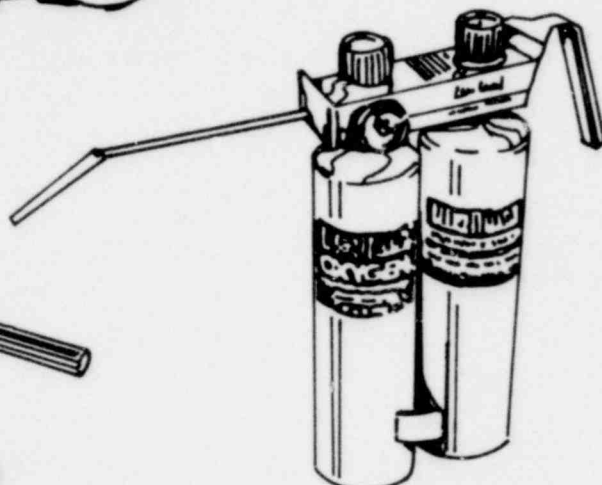
Electric Torch
Weight 10-12 lbs.
Size: 6 x 16 inches



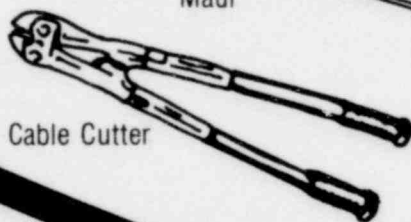
Cable Puller
Weight: 6.5 lbs.
Length: 30 inches



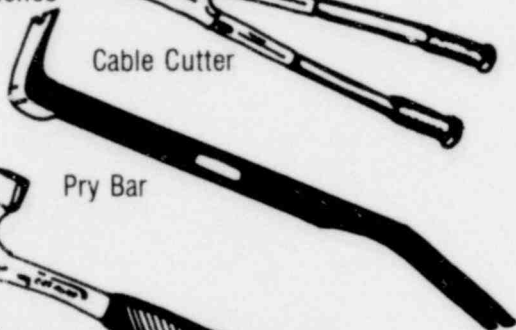
Maul



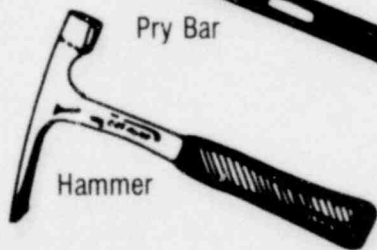
Cutting Torch



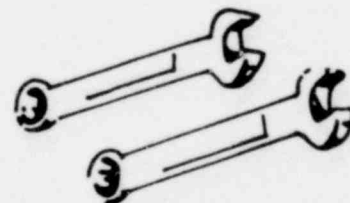
Cable Cutter



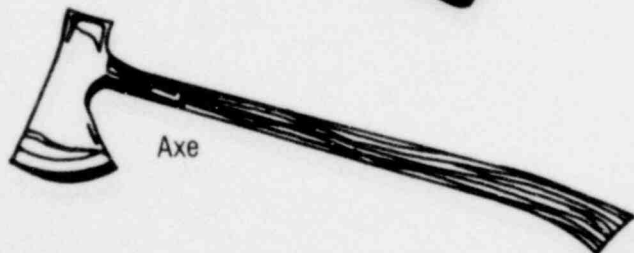
Pry Bar



Hammer



Wrenches, Screwdrivers



Axe

**COMMON TOOLS USEFUL FOR
ADVERSARY PURPOSES**

Figure 16

The foregoing information relates to attempts to take prohibited materials into Protected Areas. There is also the threat involving an attempt at the unauthorized removal of Special Nuclear Materials.

Threats to private business and industrial sites have generated a wealth of security information concerning the disguise of contraband for unauthorized entry. Considerable information also exists regarding disguising valuable materials for unauthorized removal. However, very little data has been collected on disguising Special Nuclear Materials for unauthorized removal.

You were acquainted with normal Special Nuclear Materials configurations in a previous Lesson. These usual configurations may be changed deliberately (shortened, compressed, reduced to waste) without a general awareness that the reconfiguration is not an authorized one. Such changes would enable terrorists in packaging or disguising materials for unauthorized removal. Some changes in configuration may be proper however, and should be properly described by Management's technical staff.

Questions:

1. What percentage of sabotage is based on some sort of demolition or booby trap?

2. If commercial explosives and related materials are subject to close control and regulation, what are the sources of illegal explosives?

3. Are illegal explosives and incendiaries easily recognizable? How?

4. What types of military ordnance are possibly available for sabotage purposes?

5. What are "weapons of opportunity"? Describe several.

6. Name several types of common tools which should be considered in vehicle access and search as adversary weapons.

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LESSON PLAN: 004—CONCEALMENT OF WEAPONS, EXPLOSIVES,
INCENDIARIES & CONTRABAND

TRAINEE STUDY PLAN: 004-2—Concealment Possibilities

CLASSROOM TIME: 30 minutes

STUDY REFERENCES:

1. Selected portions of Vehicle Access and Control Planning Document (NUREG/CR-0484)
2. Potential for Concealing Prohibited Articles in Vehicles, Figure 17.

STUDY ASSIGNMENT:

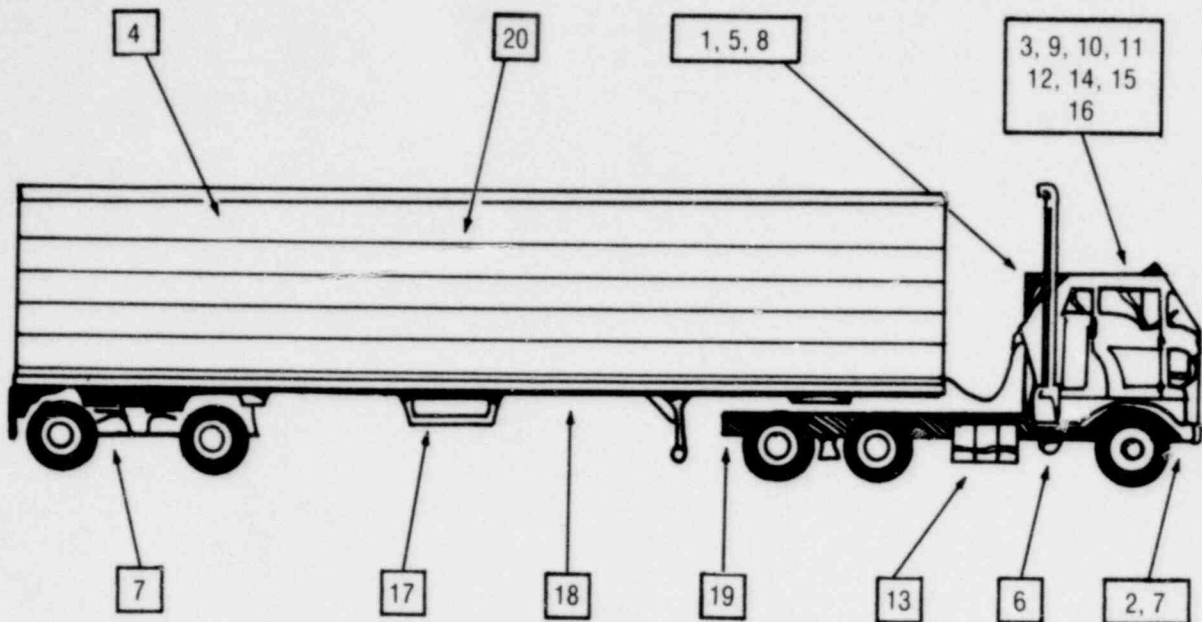
- A. Security personnel should have an understanding of potential places for concealing prohibited articles in various vehicles. Prohibited articles can be packaged and disguised in a multitude of ways. Therefore, curiosity, probing and questioning during search is necessary to assure that these articles do not pass without knowledge or discovery. Security personnel must assure, insofar as possible, that explosives, incendiaries, weapons and unauthorized tools are discovered and that special nuclear materials does not leave the Protected Area without authorization.
- B. Study Figure 17 depicting a tractor-trailer rig. This will give you a basic understanding of potential hiding places in a vehicle where prohibited articles may be found.
- C. You will be expected to conduct a search of a vehicle to test your ability in discovering concealed materials.

Question:

List ten locations in a tractor-trailer rig that could be used to hide prohibited articles:

- | | |
|----------|-----------|
| 1. _____ | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

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No.	Suspect Area Area or Component	Portability		Concealment Potential				
		Remov- able	Fixed	Parcels	Firearms	Personnel	SNM	High Explosives lbs.
1	Air cleaner (false)	x		x			x	30
2	Bumpers		x	x	x		x	20
3	Tractor body panels		x	x	x		x	20
4	Trailer body panels		x	x	x		x	100's
5	Battery	x		x	x		x	50
6	Air tank		x	(explosives)			x	100
7	Fender wells		x	x	x		x	40
8	Engine compartment		x	x	x		x	100
9	Door panels		x	x	x		x	20
10	Glove box		x	x	x		x	20
11	Headliner		x	x	x		x	20
12	Under dash		x	x	x		x	50
13	Fuel tanks		x				x	700
14	Under seats		x	x	x		x	100
15	Seats (upholstery)		x	x	x		x	20
16	Sun Visors	x		x	x		x	6
17	Spare tire	x	(explosives)				x	100+
18	Trailer frame		x	x	x		x	100
19	Tractor frame		x	x	x		x	50
20	Cargo & area	x	x	x	x	x	x	(tons)

POTENTIAL FOR CONCEALING PROHIBITED ARTICLES IN VEHICLES

Figure 17

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LESSON PLAN: 004—CONCEALMENT OF WEAPONS, EXPLOSIVES,
INCENDIARIES & CONTRABAND

TRAINEE STUDY PLAN: 004-3—Equipment Familiarization

CLASSROOM TIME: 30 minutes

FIELD ORIENTATION TIME: 60 minutes

STUDY REFERENCES:

NUREG/CR-0484 "Vehicle Access and Control Planning Document"

STUDY ASSIGNMENT:

- A. Hand-held instruments (special nuclear material detectors) are used to search for and detect the presence of special nuclear material. You need a working knowledge of this detector, its operation and its limitations.
- B. Keep in mind that the effectiveness of a special nuclear material detector can be reduced or eliminated by shielding, particularly when a heavy metal such as lead is used. A container constructed of $\frac{1}{8}$ th inch thick lead will render most instruments ineffective in locating 50 grams of reactor-grade plutonium (approximation).
- C. Your training officer will demonstrate the activation, operational check and use of the detector. You will then perform those operations and learn to use the detector to find a hidden special nuclear material source.
- D. Your training officer may also provide a demonstration of the start-up, calibration and operation of a special nuclear materials Portal Detector.

1433 082

E. TRAINING PLAN—005 LEGAL ASPECTS OF VEHICLE ACCESS & SEARCH

CLASSROOM TIME: 30 Minutes

<u>STUDY PLAN NO :</u>	<u>SUBJECT:</u>	<u>TIME:</u>
005-1	<u>FEDERAL LAW</u>	20 minutes
005-2	<u>LABOR-MANAGEMENT CONTRACT PROVISIONS</u>	10 minutes

TRAINING AIDS:

Training film (selected by Training Officer)

STUDY REFERENCES:

"Scope of Legal Authority of Private Security Personnel" (Private Security Advisory Council—LEAA, U.S. Department of Justice. August 1976.)

"Legal Authority of Security Personnel" C.J.J. Sullivan, Security Management, Volume 10, No. 2, February 1973.

Selected portions of Federal, State and Local statutes

Labor-Management Contracts (if applicable)

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LESSON PLAN: 005—LEGAL ASPECTS OF VEHICLE ACCESS AND SEARCH

TRAINEE STUDY PLAN: 005-1—Federal Law

CLASSROOM TIME: 20 minutes

STUDY REFERENCES:

1. Security Orders
2. Conditions of employment relating to vehicle search (if applicable)
3. Message text from signs posted at vehicle access points.

STUDY ASSIGNMENT:

A. Federal and State Laws

Notes and discussion regarding legal authority of private security personnel is indicated below. However, it is important for security personnel to thoroughly understand their own site jurisdictional authority as well.

The private security employee generally has the equivalent power of a private citizen to arrest, defend himself and others, to investigate, or to carry firearms. Situations which might confront a private security employee relative to vehicles include:

- Search
- Arrest Without a Warrant
- Investigation and Interrogation

B. Search

For private security personnel, the law regarding search is somewhat inconclusive. Four situations where a vehicle search may be permitted are: (1) the actual consent of the person; (2) an implied consent (union contract, employment condition, etc.); (3) incidental to a purposeful and valid arrest; and (4) incidental to a valid detention. In some states search may be expressly prohibited. Conditions of employment and union contracts often express or imply consent to search employees and their belongings, but searches of patrons, visitors, or customers in non-arrest situations is a clouded legal issue. This might include situations such as inspections of briefcases, package inspections, and visual searches of parked automobiles.

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The posting of obvious signs which state that all persons, packages and vehicles are subject to search does provide a measure of assurance that those entering are consenting. However, opening of parcels located in vehicles authorized site access but which are not the property of the licensee might be ill-advised without the assistance of local law enforcement agencies.

C. Arrest Without a Warrant

Private security personnel have generally the same rights of arrest as a private citizen.

Generally the private citizen arrest is only to be used to turn the individual over to public officials as soon as possible for a felony or misdemeanor committed.

D. Investigations and Interrogations

In general there are no restrictions relative to private security personnel requesting voluntary responses from employees (subject, of course, to labor contract requirements). The same is generally true of other personnel although in both cases the individuals have the right to remain silent.

The use of stress analyzers or polygraphs is apparently controlled more by labor relations practice than court decisions. States prohibit their use in some circumstances.

Any information resulting from interrogation and search should be handled carefully to avoid invasion of privacy.

NOTE: In all situations which indicate that either search, arrest without warrant, investigation or interrogation might be necessary, **be absolutely sure that management officials approve of such action.**

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F. TRAINING PLAN 006—VEHICLE ACCESS CONTROL

CLASSROOM TIME: 150 minutes

<u>STUDY PLAN NO:</u>	<u>SUBJECT:</u>	<u>TIME:</u>
006-1	<u>ACCESS PROCEDURES</u> a. Authorization b. Verification c. Logging d. Notification e. Gate Control & Operations	60 minutes
006-2	<u>SURVEILLANCE</u> a. Methods b. Procedure	30 minutes
006-3	<u>ESCORT</u>	30 minutes
006-4	<u>EMERGENCY SITUATIONS</u>	30 minutes

TRAINING AIDS:

Local Security Procedures

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LESSON PLAN: 006—VEHICLE ACCESS CONTROL

TRAINEE STUDY PLAN: 006-1—Access Procedures

CLASSROOM TIME: 60 minutes

STUDY REFERENCES:

1. Security order book
2. Authorization List (Persons who can authorize vehicle access or exit).
3. List of "captive vehicles" normally operating within the site perimeter
4. List of vendor and service vehicles with periodic site access.

STUDY ASSIGNMENT

- A. Authorization for Vehicles—Authorization for vehicle access consists of determining whether or not a specific vehicle is to be permitted access. Security personnel on duty must know beyond any doubt that the entrance (or exit) of the vehicle is an operational need and that the required search must be accomplished. The entrance or exit of the vehicle should also be verified by a second (or third) party to insure that the authorization is valid.

Vehicle access should be permitted only for official business and only for missions specifically requiring vehicles.

- B. Logging—All vehicles entering or exiting a Protected Area should be logged. Similar logs should be maintained for vehicles entering or exiting Material Access Areas and Vital Areas. Such logs allow keeping track of vehicle traffic, being aware of vehicles in the area and those that have departed and can provide an excellent "audit trail" for investigation in the event of an incident. Having a list of site-owned vehicles and others which require frequent access and exit can be an aid to security personnel (Training Officer should provide typical examples).
- C. Notification—Prior to allowing a vehicle to enter or exit, some type of advance notification is desirable. Remember the discussion on "Authorization."

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Examples:

If a commercial vehicle arrives with a warehouse delivery, notify the warehouse supervisor and make sure it is a bonafide delivery (you may even call the dispatcher's office of the commercial line to verify).

A vehicle attempts to enter and the driver states the vehicle has been off site for maintenance. Call the person in charge and notify him of the situation before allowing access.

A shipment of special nuclear material is leaving your area. Check it out by calling the special nuclear material "accountability officer" and advising of the shipment. Confirm the vehicle entry or departure by notifying someone in authority who should have knowledge of the situation.

- D. Vehicle Control—Staffing a central vehicle access point with at least two security personnel allows one to conduct search operations while the second is available as an observer. The second person is in a position to render assistance as required and to handle other vehicle traffic without interrupting search operations being performed.

Two means of communication between a vehicle access point and a central control station should be used if available. If a duress system is provided be sure you understand its operation.

- E. The procedure for controlling passage of vehicles should be established and followed.
- Check to assure the vehicle is "authorized" for entry or exit.
 - The vehicle should be logged and searched.
 - Never allow an unknown person inside the security station—do the searching and logging at the gate.
 - Make sure that vehicle cargo and occupants are authorized for entry/exit.
 - Determine if the vehicle (and driver) requires an escort. If so, arrange for a knowledgeable person to perform the escort.
 - Know the contingency plan to follow if a threat or abnormal situation occurs.

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Questions:

1. How do written vehicle access and control procedures help you do a better job?

2. Can any vehicle enter the Protected Area as long as it does not proceed to a Material Access Area?

3. How can authorization be gained to enter a Protected Area? A Material Access Area?

4. What is meant by:
 - a. "Authorization" _____

 - b. "Verification" _____

 - c. "Notification" _____

5. Give two reasons why complete and accurate logging of vehicles is important.

6. Who do you notify when a commercial vehicle arrives at the site and requests access?

7. Whom do you notify when a special nuclear material shipment is ready to depart?

8. At least two means of communication are recommended for the security station. Why?

9. During vehicle search and logging procedures, how should the driver/operator and passengers be accommodated?

10. From the information provided by the training officer, fill out completely and accurately a sample copy of the vehicle log.

LESSON PLAN: 006—VEHICLE ACCESS CONTROL

TRAINEE STUDY PLAN: 006-2—Surveillance

CLASSROOM TIME: 30 minutes

STUDY REFERENCES:

1. Security Order Book

STUDY ASSIGNMENT:

- A. The term "surveillance" has several meanings. The dictionary definition of "close observation . . . especially of one under suspicion" in actual practice may be interpreted as "continuous," "occasional" or "frequent." Continuing observations are necessary to achieve maximum positive assurance against a surreptitious action. This may be achieved by several means (visual, physical barriers, electrical/electronic devices, or combinations of these).
- B. Surveillance of vehicles is important during passage through the perimeter gate. The vehicle should be under surveillance as it approaches and during the period search and access is in progress.
- C. A very important concept in vehicle security is the provision for designated parking areas where all vehicles are kept under surveillance to observe access to the vehicles. This is particularly important for vehicles which are required to go in and out of Protected Areas.
- D. Surveillance of vehicles may be accomplished by closed circuit television (CCTV) or continuous surveillance by guards from stations or towers. Discuss your particular site methods with your training officer.
- E. Questions
 1. What is meant by the term "surveillance"?

 2. Why are good surveillance procedures important?

 3. List at least three methods of surveillance:

- F. Your training officer will present you with some examples of surveillance to demonstrate the difference between looking and actually seeing.

LESSON PLAN: 006—VEHICLE ACCESS CONTROL

TRAINEE STUDY PLAN: 006-3—Escort

CLASSROOM TIME: 30 minutes

STUDY REFERENCES:

1. Security Order Book
2. Site Emergency and Contingency Plans

STUDY ASSIGNMENT:

Prepare to answer/discuss the following:

- A. Typical site areas are listed below. What is meant by each of these? How many escorts are required per vehicle? Who may escort? When is the escort required?

	Term:	Escort Requirement:
Material Access Area	_____	_____
Protected Area	_____	_____
Vital Area	_____	_____

- B. Can a facility employee (other than security) escort a non-employee into a Vital Area?

- C. Where should the escort always be in relation to the vehicle and its occupants?

- D. Discuss some of the common problems an escort may experience while performing his/her duties.

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LESSON PLAN: 006—VEHICLE ACCESS CONTROL

TRAINEE STUDY PLAN: 006-4—Emergency Situations

CLASSROOM TIME: 30 Minutes

STUDY REFERENCES:

1. Emergency Vehicle Access Procedures
2. List of Emergency Vehicles

STUDY ASSIGNMENT:

- A. Emergencies are not scheduled. Therefore, the access of emergency vehicles (fire, ambulance, law enforcement, etc.) responding to an on-site emergency must be in accord with a pre-arranged plan. This should include contacting the responding emergency service and securing the names of driver/operators and the license numbers of responding vehicles.
- B. The fact that the license number and the name of the driver/operator is known does not mean that access to the site should be routinely granted to the emergency vehicle. Advance notice of access by off-site emergency vehicles should be provided.
- C. Upon entry, the emergency vehicle should be subject to the same escort rules as any other vehicles. A check of the vehicle's occupants should be made to assure that no attempt is being made by unauthorized personnel to gain entry. The exterior and interior of the vehicle should be scanned for any obvious abnormalities.
- D. Unless the vehicle has been under continuous escort during the emergency, each emergency vehicle and its occupants should be checked for special nuclear material with a hand-held gamma detector prior to the vehicle's exit from the Protected Area. All patients put aboard ambulances should also be checked.
- E. An emergency is not a reason for neglecting vehicle control responsibilities. Vehicle access and departure should be logged as required.

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F. Questions:

1. According to facility emergency procedures, which of these vehicles may be allowed access inside the Protected Area during an emergency?

- Facility-owned Ambulance
- Off-site Ambulance
- Facility-owned Firefighting Vehicles
- Off-site Firefighting Vehicles
- Facility-owned Security Vehicles
- Off-site Law Enforcement Vehicles
- National Guard Military Vehicles
- Civil Defense Disaster Team Vehicle
- American Red Cross Emergency Vehicle
- Utility Emergency Equipment Such As:
 - Telephone Company Vehicle
 - Power & Light Company Vehicle

2. Assume a "fire emergency" in the Protected Area. The Volunteer Fire Department from a nearby community responds with two vehicles. How do you control access?

3. An ambulance is preparing to leave the Protected Area following an emergency. Two patients are aboard. What should you do?

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4. During an emergency, the following vehicles were allowed within the Protected Area:

- (1) Two off-site fire trucks with crews
- (2) The County Sheriff and his Deputy
- (3) The Electric Utility Company's emergency vehicle and four service personnel

a. What access control and search procedures would you follow for each of the above?

- (1) _____

- (2) _____

- (3) _____

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G. TRAINING PLAN 007—VEHICLE SEARCH

CLASSROOM TIME: 120 minutes

FIELD ORIENTATION TIME: 120 minutes

<u>STUDY PLAN NO:</u>	<u>SUBJECT:</u>	<u>TIME:</u>
007-1	<u>SEARCH PATTERNS</u>	30 minutes
007-2	<u>PHYSICAL/HAND SEARCH</u> a. Levels of Search b. Search Procedures	30 minutes
007-3	<u>ELECTRONICS SEARCH FOR:</u> a. Weapons & Explosives b. Special Nuclear Material	30 minutes
007-4	<u>ANIMAL-ASSISTED SEARCH (OPTIONAL)</u> a. Description and Methods b. Actual Practice (if dogs are to be used)	30 minutes
007-5	<u>VEHICLE SEARCH—</u> <u>DEMONSTRATION & PRACTICE</u> a. Field Orientation—"Rigged" Vehicle	120 minutes

TRAINING AIDS:

Station Wagon
Pick-up Truck
Explosives Detector (hand-held)
Special Nuclear Material Detector (hand-held)
Radioactive "Source" Material
Concealed Handgun (recommend metal replica)
Shovel (with hollow "D" handle)
Metal Pieces (mock fuel pellets)
Flashlight
Inspection (hand) Mirror
Coveralls and Cotton Gloves
Explosives-Trained Dog and Handler if available (optional)

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LESSON PLAN: 007—VEHICLE SEARCH

TRAINEE STUDY PLAN: 007-1—Search Patterns

CLASSROOM TIME: 30 minutes

STUDY REFERENCES:

1. Security Orders.
2. Copy of Applicable Laws Relating to Search.
3. Operating Instructions for Detection Equipment.
4. Vehicle Search Patterns, Figure 18.

STUDY ASSIGNMENT:

- A. Following a presentation by the training officer, you will receive practical (hands on) training in this phase of vehicle access and search procedures.
- B. You will have five areas to cover during this classroom session, followed by a vehicle search demonstration and a hands-on vehicle search.
- C. Prior to the demonstration and hands-on practice assure yourself that you are familiar with the various search devices to be used in actual practice. Review the vehicle search patterns, the physical and electronics search procedures, and the legal aspects of search. Prepare yourself to conduct the demonstrations in a positive and professional manner.
- D. Be sure you understand the correct search procedure. The following comments relate to examples of inadequate Vehicle Search Patterns. Can you determine the faults of each (use Figure 18)?

Search Pattern #1: The search includes a visual search of the engine compartment, fender wells, cargo area, passenger area, under seats, under dashboard and the glove compartment.

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LESSON PLAN: 007—VEHICLE SEARCH
TRAINEE STUDY PLAN: 007-2—Physical/Hand Search
CLASSROOM TIME: 30 minutes

STUDY REFERENCES:

1. Emergency Procedures for Searching Vehicles Suspected of Containing Explosives or Bombs (Bomb Search Procedures, the National Bomb Data Center)
2. Level 1 Search Procedure
3. Level 2 Search Procedure
4. Level 3 Search Procedure
5. Level 4 Search Procedure

STUDY ASSIGNMENT:

- A. Level 1 Search. This includes general examination of a vehicle's main compartments (engine, trunk, cargo, passenger, cab, undercarriage, etc.) and may be supported with the use of a special nuclear material and/or explosive detector. Failure of the vehicle to pass this search could result in certain alternatives (access denial, arrest, Level 2, 3, or 4 searches, or impoundment as appropriate).
- B. Level 2 Search. A thorough and deliberate search of all parts of a vehicle which are visually accessible and accessible by design (opening trunks, tire compartments, engine, trunk, cargo compartments, glove compartments, etc.). This search should be conducted with mirrors, flashlights, flex-scopes, etc., as required to assure coverage. This search may also be supported with the use of a special nuclear material detector and/or explosive detector.
- C. Level 3 Search. This search level includes the Level 2 search plus non-destructive disassembly of the vehicle. There should be specific justification for the search to progress this far (suspicious activities of the vehicle driver and/or passenger, or positive special nuclear material explosive detector indications for example). Disassembly might include removal of hubcaps, air cleaners, head and tail light lenses, panels, etc., which can be accomplished without damage to the vehicle. It is also possible that this may be carried out utilizing non-destructive x-ray techniques. Search could be authorized by the security supervisor.
- D. Level 4 Search. This search level includes the previous Level 1-3 techniques plus destructive disassembly and might include cutting into upholstery, oil filters, tires, etc. If a Level 4 search is indicated, access of the vehicle should be denied.

NOTE: If a vehicle is suspected of harboring any explosives, external caution should be exercised and the vehicle denied access pending examination by trained bomb search personnel.

SEARCH PROCEDURE

Level 1 Physical/Hand Search—Automobile (Use Figure 19)

1. Trunk Compartment (including behind seat, storage, etc.)
 - a. Luggage, parcels, packages
 - b. Tool boxes
 - c. Around spare tire
 - d. All interior surfaces and voids
 - e. Fuel cans and air cylinders (off load fuel cans and other incendiary materials)
2. Passenger Area
 - a. Luggage parcels, packages
 - b. Under dash
 - c. Under seats (visible areas)
 - d. Glove compartment and contents
3. Engine Compartment
 - a. Underside of hood
 - b. General fire wall, behind grill, and engine area (look for unnecessary components, type, etc.)
4. Inside bumpers (front and back)
5. General undercarriage and roof (check carefully around fuel tanks)
6. All (4) wheel wells

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SEARCH PROCEDURE

Level 1 Physical Search—Trucks (Use Figures 19, 20)

A. Trucks (General)

1. Cargo Area
 - a. Parcel, package and equipment, etc. (see note)
 - b. Ceiling, walls and floor (walk-thru)
 - c. Non-cargo containers, tool boxes, etc. (off-load fuel cans)
2. Passenger Area
 - a. Parcels and packages
 - b. Luggage
 - c. Under seat and behind seat (fold up/down seats)
 - d. Sleeper area
3. Glove compartment and cab storage areas
4. Engine Compartment
 - a. Open hood or cab cover. Search readily accessible areas.
5. General frame work, undercarriage and wheel assemblies, tool boxes, wheel wells, etc. (check around fuel tanks very carefully).
6. Bumpers, steps, and runningboards
7. Roof or cab and cargo box/trailer
8. Check external trailer compartment length, depth, etc., to assure that false panels capable of concealing personnel are not built in.

The search areas noted below are in addition to those specified for trucks (general)

B. Tank Trucks

1. Check hose compartments
2. Check pump compartments
3. Check filler cap area

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C. Gas Cylinder Delivery Truck

4. Inspect generally between cylinders (assure cylinders only and that cylinders appear normal)

D. Multi-Compartment Service Truck

5. Check each compartment and contents

E. Emergency Vehicles

6. Check compartments and/or treatment area
7. Check hose storage area

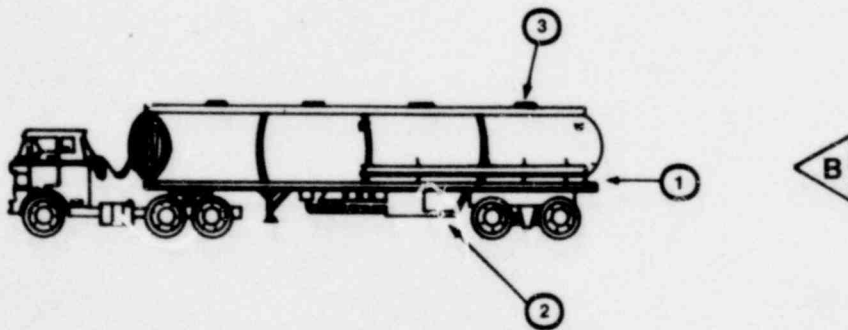
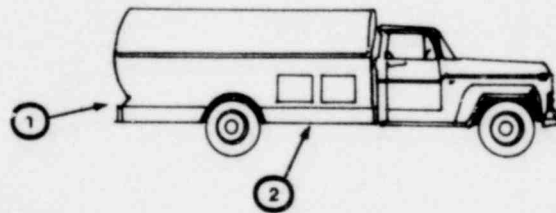
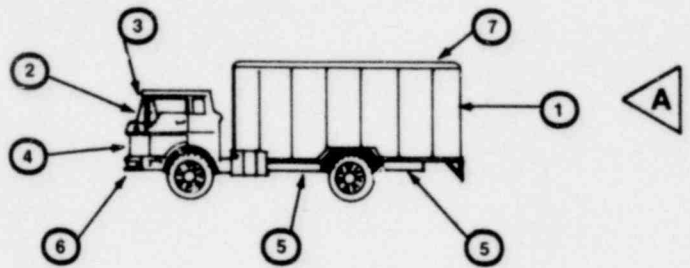
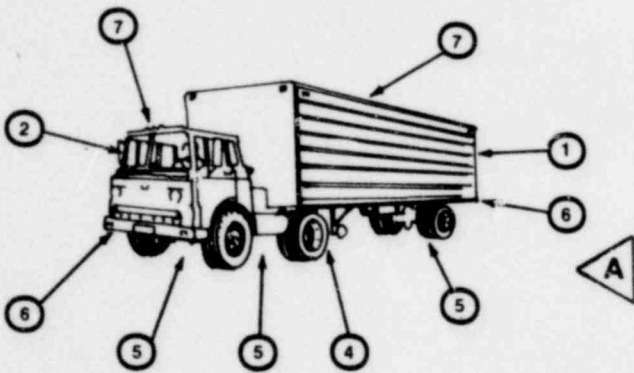
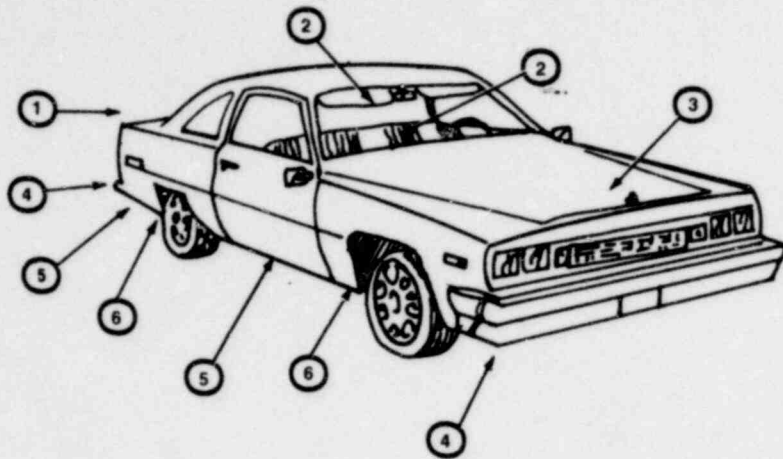
F. Cask Shipping Trailers

8. Inspect around cask holding mechanism and special cask trailer apparatus
9. Assure casks are sealed

G. SST Shipments (no authority to search)

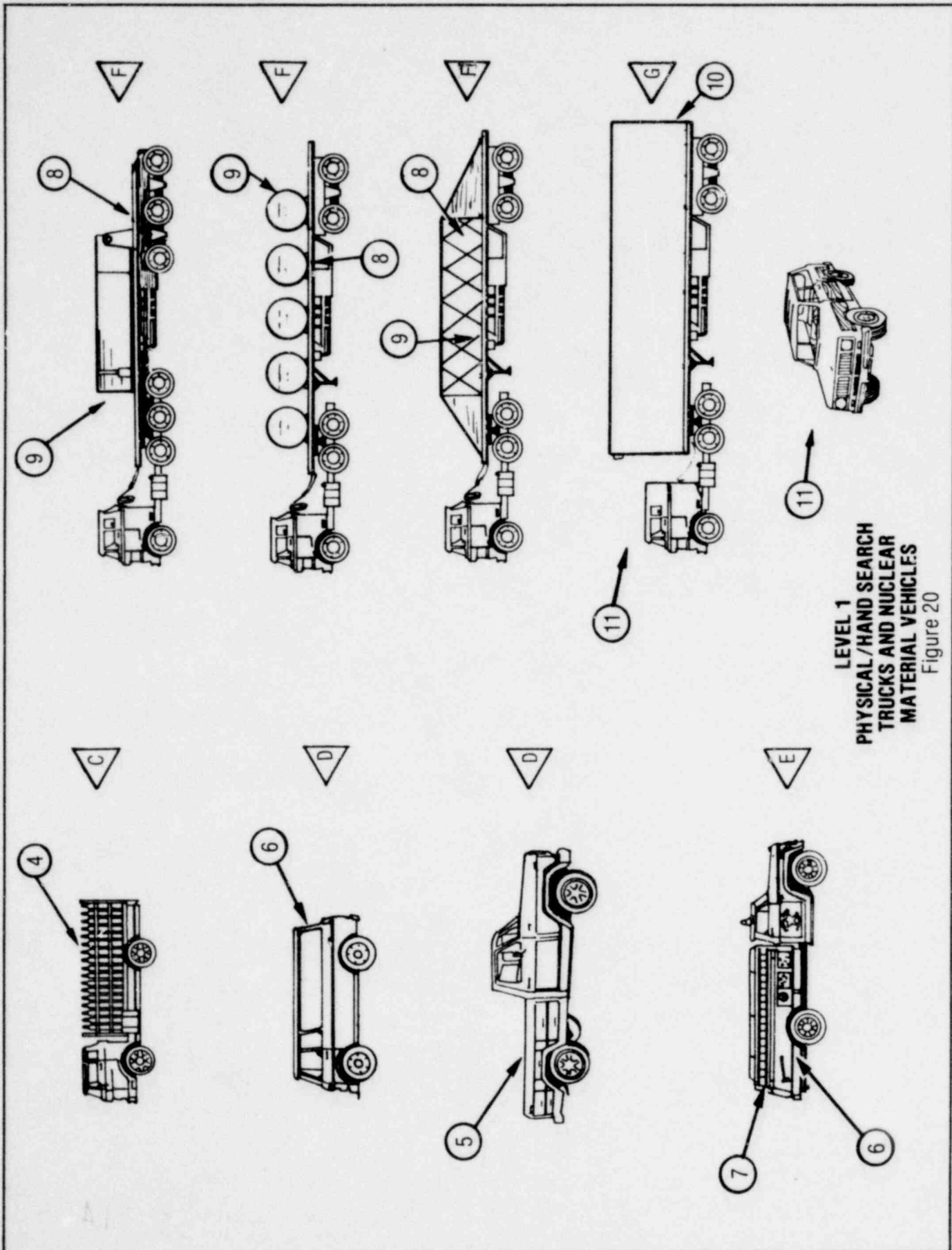
10. Check or have courier verify that seals are intact
11. Observe SST tractor, trailer and escort vehicles for any abnormalities

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LEVEL 1
 PHYSICAL/HAND SEARCH
 AUTOMOBILES/TRUCKS
 Figure 19

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LEVEL 1
 PHYSICAL/HAND SEARCH
 TRUCKS AND NUCLEAR
 MATERIAL VEHICLES
 Figure 20

SEARCH PROCEDURE

Level 1 Physical Search—Rail Cars (Use Figure 21)

Couriered coaches, locomotives, cabooses and special nuclear material cars do not require searches.

A. Couriered Rail Shipments

1. Seals on cask or fuel assemblies, etc., which are under escort by couriers should be checked prior to release or acceptance.
2. All couriered rail cars and locomotives which enter the Protected Area should be observed for abnormalities during pick up and delivery. Shipping car inspection as below when not in custody of couriers (once released or before assumption).

B. Non-Couriered Rail Shipments (cars picked up or delivered)

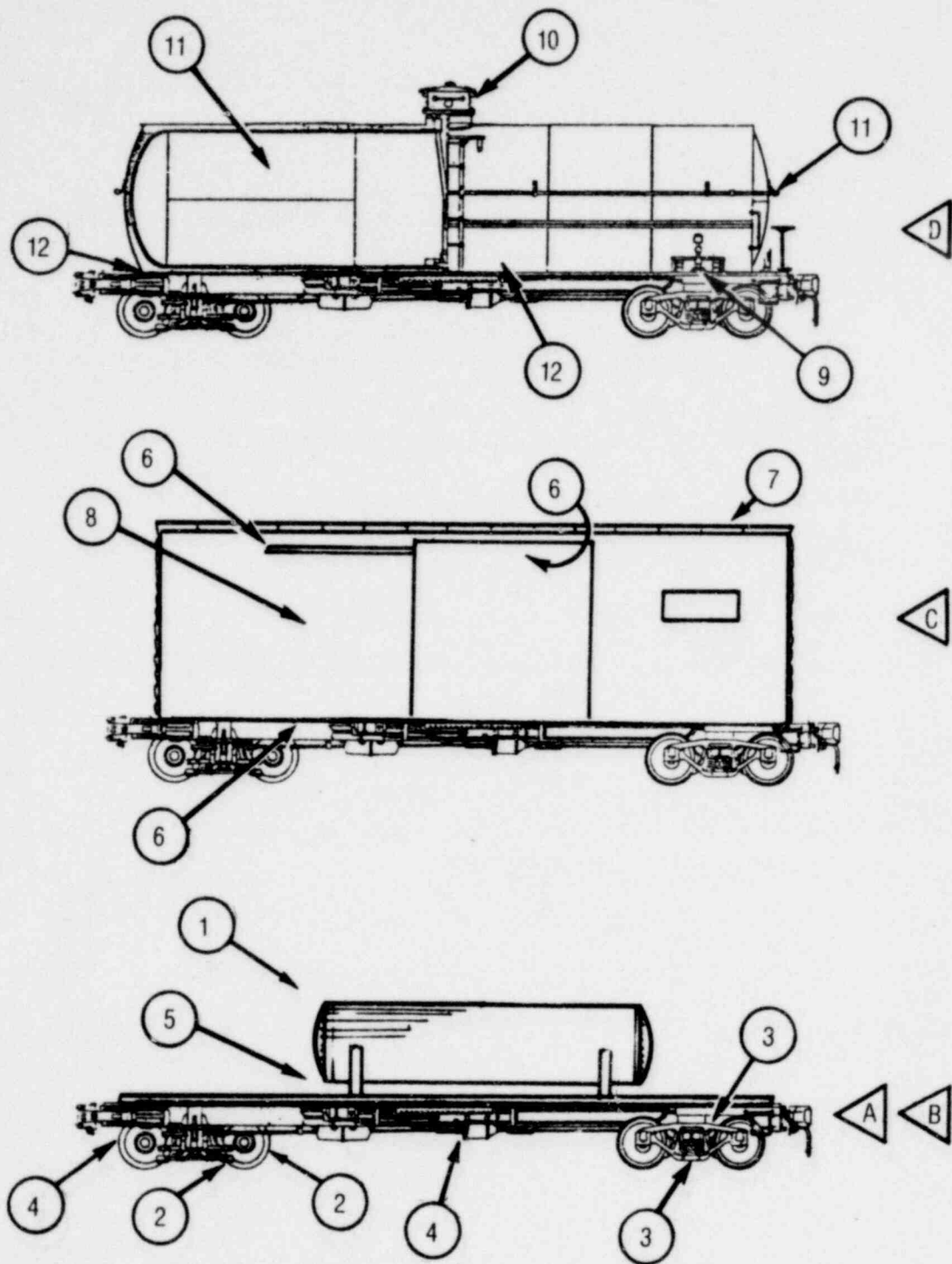
1. Check seals on casks, fuel assemblies, or special nuclear material containers.
2. Inspect wheels (inside and outside).
3. Inspect behind trucks.
4. Inspect undercarriage of bed. Search channel and "I" beams, side sills, floor supports and coupling shank.
5. Check around containers, dunnage, equipment, materials, etc.

C. Box Car (in addition to Non-Couriered Rail Shipment Search)

6. Inspect interior walls, floor, ceiling, door.
7. Inspect roof and walkway.
8. Inspect exterior surface. Check any voids and access panels.

D. Tank-Type Car (inspect carefully and closely in addition to Non-Couriered Rail Shipment Search)

9. Inspect hose lockers or pump mechanism panels.
10. Inspect fill port area and walkway.
11. Inspect surface of tank for unusual attachments.
12. Inspect channels and voids created where tank joins carriage or bed.



**LEVEL 1
PHYSICAL/HAND SEARCH
RAIL CARS**
Figure 21

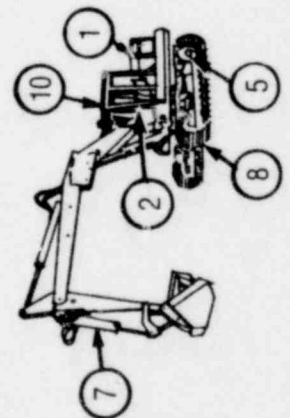
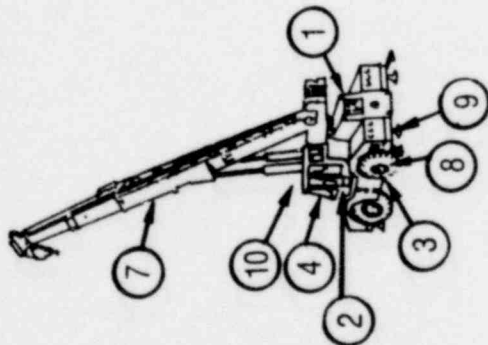
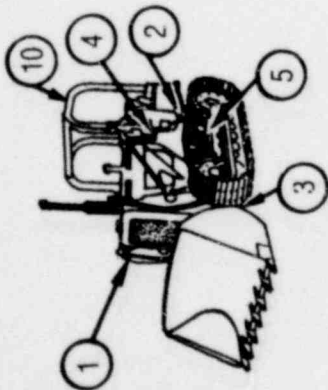
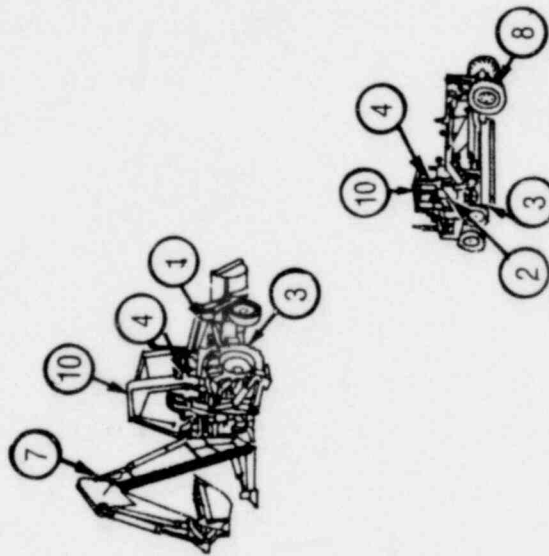
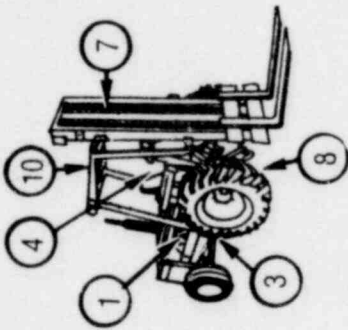
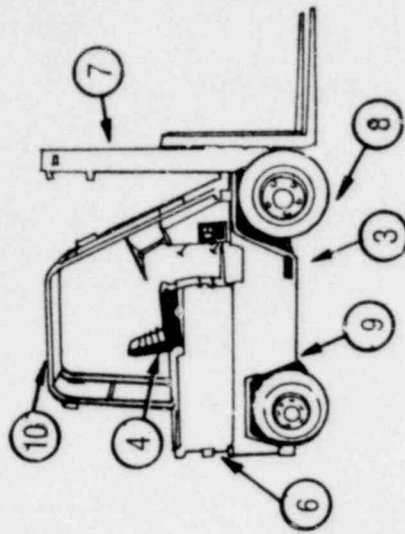
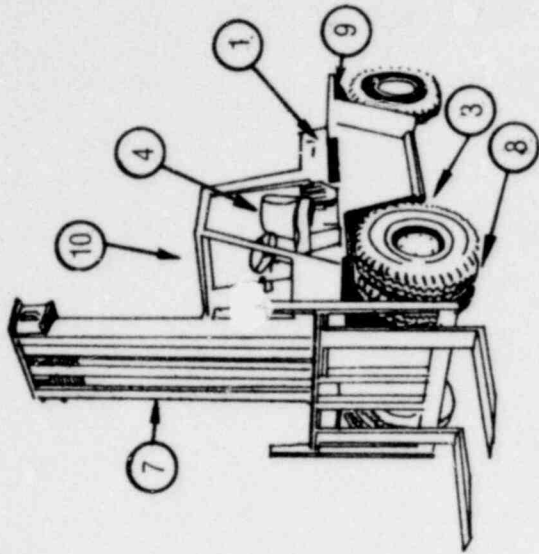
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SEARCH PROCEDURE

Level 1 Physical Search—Special Equipment (Use Figure 22)

1. Check engine compartments
2. Check all storage and tool compartments
3. Check undercarriage (all the way around)
4. Inspect under seats and cushions
5. Check behind track mechanisms
6. Inspect battery compartments
7. Check all booms and masts
8. Inspect behind wheels
9. Inspect fender wells
10. Check all roofs

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**LEVEL 1
PHYSICAL/HAND SEARCH
SPECIAL EQUIPMENT**
Figure 22

SEARCH PROCEDURE

Level 2—Physical Search—Automobile/Pickup/Station Wagon (Use Figure 23)

A. Front Section:

1. Front license plate: Examine area behind license plate.
2. Front directional lights: (two locations). Examine cover. Be alert for indications of recent installation.
3. Front bumper: Examine inside surface. If bumper is close to auto structure, use an inspection mirror.
4. Grill work: Examine between and inside of grill work.
5. Headlights: (two locations). Be alert for indications of recent installation.

B. Side Section: (both sides—repeat the following on other side of car)

6. Front side lights: Examine lamp cover. Be alert for indications of recent installation.
7. Front hub caps: Remove and examine cap and wheel and/or inspect for recent removal.
8. Front wheel wells: With the aid of a flashlight and inspection mirror, examine inside of wheel well. Contraband has been found attached by magnets to the inside surfaces of wheel wells.
9. Door handles: Examine underneath.
10. Rear hub caps: Remove and examine cap and wheel and/or inspect for recent damage.
11. Rear wheel wells: Same as search point #8.
12. Rear side lights: Same as search point #6.
13. Window cut outs: Roll windows down and look down into the interior of the door where possible.
14. Surface of doors: Open door and examine underside for possible cut outs.
15. Front side of doors: Open door and examine front side of door and adjacent structure of auto for possible cut-outs.
16. Rear side of doors: Open door and examine rear side of door and adjacent structure of auto for possible cut-outs.

C. Rear Section:

17. Rear license plate: Examine area behind license plate.
18. Rear bumper: Examine inside surface of bumper. If bumper is close to auto structure, use an inspection mirror.
19. Tail lights and back-up lights: (right and left). Examine inside of lamp covers. Be alert for indications of recent installation.
20. Fuel filler neck: Remove cap and examine inside for possible suspension of contraband into the neck. Be cautious of volatile fuel fumes. Confirm presence of gasoline or diesel fuel. Assure no smoking in area while this is done.

D. Engine Compartment:

21. Battery: Examine area under and around battery.
22. Voltage regulator: Examine cover for signs of recent installation.
23. Air filter: Examine for indications of recent installation. Examine the "thumb" type hold down nut and area immediately adjacent for signs of tampering. The air filter is not a vital engine part and the inside filtering element can be easily removed and replaced with contraband merchandise.
24. Oil filter: Examine for indications of recent installation or modification. The oil filter is not a vital engine part and it is possible to internally modify an oil filter so as to by-pass the engine oil and leave the interior of the filter hollow for the concealment of contraband.
25. Windshield washer liquid container: Examine the interior with the aid of a flashlight.
26. Radiator filler neck: Examine inside for possible suspension of contraband packages. Be extremely careful when removing cap. Wrap your hand in a large towel or use an insulated rubber glove and stand back. This is a hazardous operation.
27. Grill work: Search area around and inside of grill.
28. Hood cover and entire engine compartment structural work: Examine around and under all structural members and engine components for possible attachment of contraband packages. Examine inside of "lightening" holes in stiffener members attached to under surface of hood.

E. Passenger Compartment:

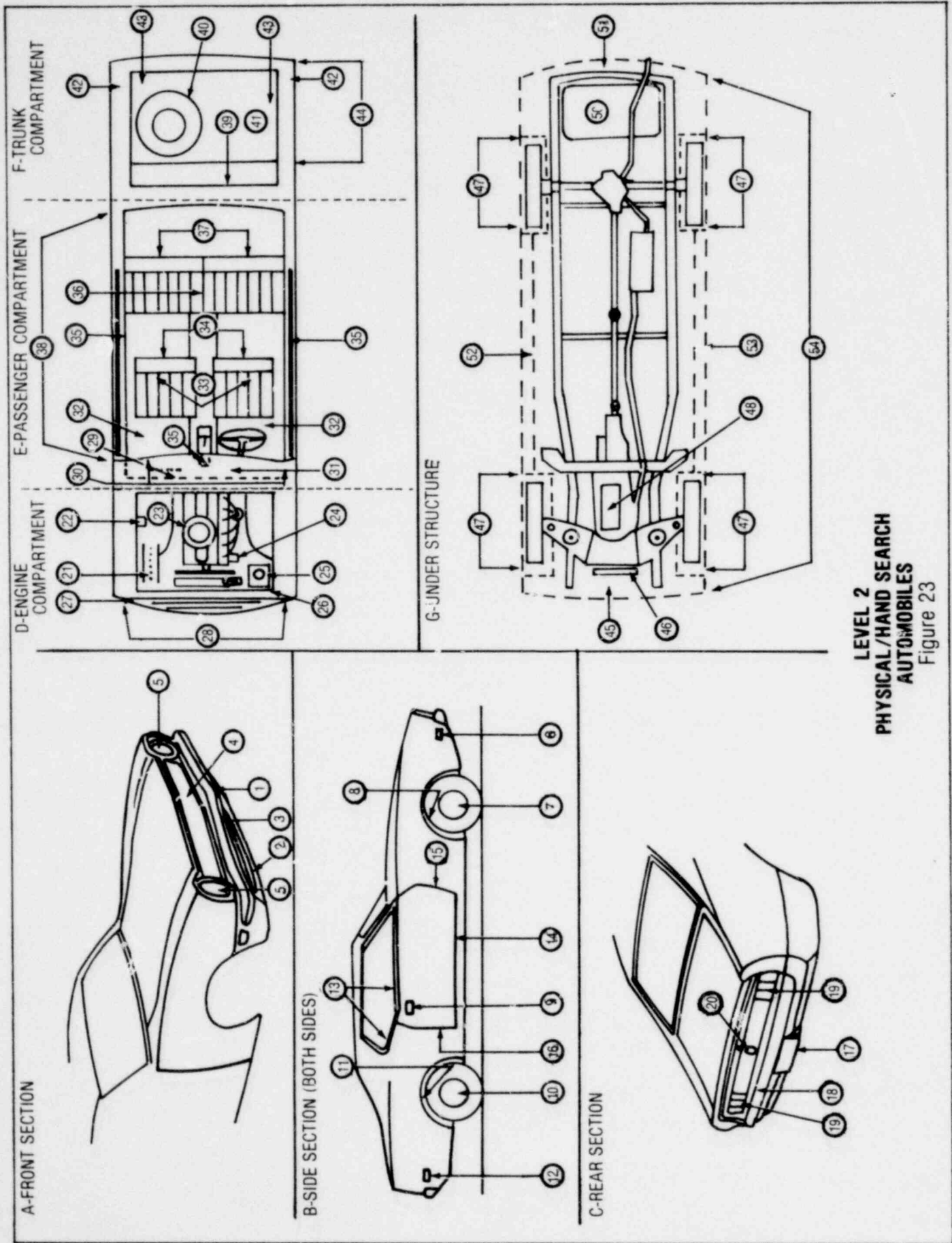
29. Glove compartment: Examine interior and contents.
30. Entire dash panel: With the aid of an inspection mirror and flashlight, examine the entire space behind the dash panel.
31. Ventilation and heating ducts: With the aid of a flashlight, inspection mirror and/or the fiber scope, examine the inside of the outlet housing and ducts. Be alert to signs of recent installation. A prime search point.

32. Floor mats and back side of control pedals: Examine the underside of all floor mats. Examine back side of control pedals for attachment of contraband packages.
 33. Front seats: Examine underneath. With the aid of a flashlight and inspection mirror look up into cushion springs from the bottom.
 34. Bucket seat backs: On most bucket type seats, the inside back panels snap off to expose an area of considerable size.
 35. Ashtrays: Remove inside containers and examine contents and space inside of holding structure.
 36. Back seat: Remove back seat. Examine cushions and spring area. Most back seats easily snap out by pulling up on forward edge.
 37. Rear seat back: With back seat removed, look up into area behind seat back and auto structure. Also check under fold-down seats.
 38. Top of passenger compartment: Sunvisors, mirror, dome light and header. Examine sunvisors and behind the same; behind rear view mirror, dome light assembly for signs of recent installation; header for slits and bulges.
- F. Trunk Compartment (and related storage compartments):
39. Trunk roof: Examine trunk roof forward and under rear window deck.
 40. Spare tire: Loosen spare tire and examine area under tire. Be alert to signs of recent work to tire and rim. Check for air pressure.
 41. Trunk bottom covering: Examine underneath.
 42. Recessed space behind rear wheel well: Some automobiles have a recess in the area behind the rear wheel well. This recess is usually covered with a cardboard panel and the trunk bottom covering and gives the trunk a continuous flat appearance.
 43. Tail light assembly covers: The lamp assemblies of most tail lights are accessible by removing the back cover which is located in the trunk. Be alert to signs of recent installation.
 44. Bottom surface of trunk lid: Examine inside of "lightening" holes in stiffener members attached to under side of trunk lid.
- G. Under Structure:
45. Front gravel panel: Examine inside.
 46. Bottom of radiator: Examine for signs of modification work. The appearance of unusual welds, brazing, soldering and painting would be an indication of possible installation of false bottoms or compartments. A prime search point.
 47. Wheel wells: (four locations). Examine inside surfaces from the bottom.

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48. Engine oil pan: Be alert to signs of recent installation. Search same details as #46.
49. Muffler: Also be alert to signs of recent installation. Search same details as #46.
50. Fuel tank: Also be alert to signs of recent installations. Search very closely for attached small charges, wires, etc. Search same details as #46.
51. Rear gravel panel: Examine inside.
52. Right rocker panel: Examine for cut-outs and signs of modification.
53. Left rocker panel: Same as Search Point #52.
54. Entire framework: With the aid of an inspection mirror and portable lighting, examine the entire under framework for the attachment of contraband packages by the utilization of tape, wire or magnets.

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LEVEL 2
 PHYSICAL/HAND SEARCH
 AUTOMOBILES
 Figure 23

SEARCH PROCEDURE

Level 2—Physical Search—Truck-General (Use Figure 24)



1. Bumper & Grill Work:
 - a. Attachment of packages to grill work and bumper
 - b. Back of license plate
Inside of vent openings
2. Engine Area:
 - a. Check for recently worked screw and nut and bolt fasteners on engine accessory and hose assemblies.
 - b. Check for attachment of packages to under side of hood, engine block, steering column, etc. Check radiator only if suspicion demands (open cap with caution).
 - c. Inside of cowling surrounding fan blades.
 - d. Air filter housing.
3. Tire and Wheel Assemblies: Check all tire and wheel assemblies for evidence of recent removal. Inspect between dual wheels.
4. Cab Area:
 - a. Seat cushions
 - b. Under seats
 - c. Under and behind instrument panel
 - d. Inside of glove compartment
 - e. Behind stereo-deck assembly. Check tapes, speaker housing.
 - f. All suitcases and packages
 - g. Ash trays
 - h. Headliner
 - i. Under or behind all foot pedals
 - j. Area on top of deck next to front window or windshield
 - k. Behind sun visors
 - l. Under floor mats
 - m. In door panels (roll windows down, shine light into opening)

- n. Inside of vent hoses and outlets
 - o. Behind seats
5. Baggage Compartment:
 - a. Examine all suitcases and packages
 - b. Check for packages attached to top of compartment
 - c. Behind insulation and padding on compartment walls
 6. Cab Sleeping Area:
 - a. Under mattress
 - b. In pillows
 - c. Between blanket covers
 - d. In ventilation outlets
 - e. In headliner area
 7. Battery Boxes:
 - a. In cell compartments. Be careful of acid when removing and replacing caps.
 - b. Between battery body and wall of box.
 8. Fifth Wheel Area: (Under and around)
 9. Trailer Refrigeration Unit: (Not on all trailers.) Examine all compartments.
 10. Ice Bunker Compartment: (Not on all trailers.) Access gained by two doors, one on each side, front of trailer. This is a prime spot.
 11. Roof—both Tractor and Trailer: Packages attached to roof top. Check entire length. Use ladder or mirror on pole.
 12. Under entire Tractor-Trailer: Check for packages attached to structural frame work under entire length of tractor and trailer. Note: Information received from various truck drivers suggests that the attachment of contraband packages to the underframe of tractors and trailers is a favorite method employed by smuggling activities. Check fuel tanks very closely.
 13. Spare Part and Tire Chain Compartment: (Not found on all trailers.) Outside and inside of packages.

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14. Interior of Trailer:
 - a. Between side walls, ceiling and bumper panels (usually plywood).
 - b. Check for recently installed screws.
 - c. Examine floor for loose flooring and hidden compartments.
 - d. Ceiling—for attached packages.
15. Wheel Axles: Check for attached packages.
16. Company Sign Panels: (Found on most trailers.) Check for contraband concealed in spaces between sign and trailer body.
17. Canvas or Plastic Document Pouches: Examine inside and behind.
18. Bumper on Rear of Trailer: Examine the inside of the hollow channels.
19. Trailer—Upward Sliding Door: (Not on all trailers.) Examine portion of inside ceiling that is covered by sliding door when door is in open position. Step into trailer and close door, examine ceiling and door track with the aid of a flashlight.
20. Light Lenses & Reflectors: Located throughout trailer and tractor. Examine visually with the aid of a light source to determine possible inclusion of contraband in space between face glass and bulb. Also check for recently removed hold down screws.
21. Externally Mounted Air Filter: (On some tractor models.) Check for recent installation.
22. External Tractor Air Inlets: Examine inside for contraband
23. Inspect all panels which could conceal personnel, etc. Check thickness of panels. Measure internal depth/length of trailers vs. external depth/length. Differences greater than 8 inches are suspect.

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SEARCH PROCEDURE

Level 2—Physical Search—Special Trucks (Use Figures 24 and 25)

The search areas noted are in addition to those specified for trucks (general).

- B.** Tank trucks (note—tank trucks, particularly those containing flammables are extremely high risk sabotage items even without driver involvement).
1. Inspect hose compartments. Remove hoses if necessary. Use flashlight for long cylindrical hoses and compartments.
 2. Check pump and storage compartment (top, bottom, sides, doors and contents)
 3. Check filler cap areas
 4. Check areas between tank and frame
 5. Assure no unusual attachments to tanks
- C.** Gas cylinder delivery truck (gas cylinders are almost impossible to search in large quantities. Search carefully).
6. Check between all cylinders.
 7. Check cylinders for wiring or attachments. Check all frame platform voids.
- D.** Multicompartment
8. Check each compartment and content
 9. Check any voids behind compartments
- E.** Emergency Vehicles
10. Check all compartments and contents
 11. Check hose storage areas (draft tubes and fire hoses)
 12. Check around special apparatus (mattresses in ambulances, rescue equipment)
- F.** Cask Shipping Trailers
13. Inspect around and under each cask to assure no attachments, unusual wires, etc.
 14. Inspect cask holding fixtures and stabilizers, check inside any voids or hollow areas.
 15. Inspect each cask seal.

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16. Check all "I" beam and channel structures from both outside and inside.

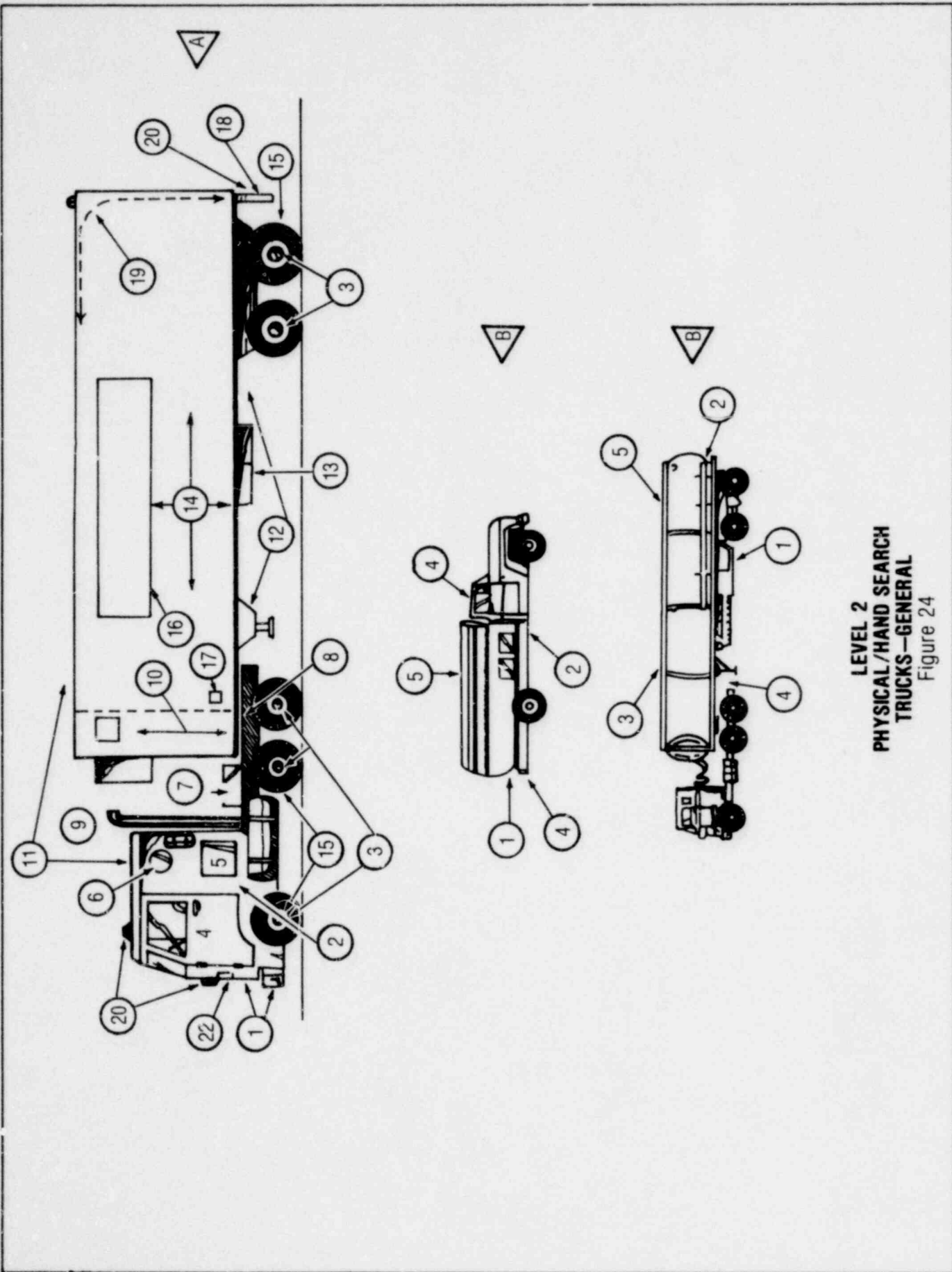
6. SST Tractor-Trailers

17. Inspect SST tractor seal or have courier verify that it is intact.

18. Observe SST trailer, and trailer escort vehicles for any abnormalities.

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LEVEL 2
 PHYSICAL/HAND SEARCH
 TRUCKS—GENERAL
 Figure 24

SEARCH PROCEDURE

Level 2—Physical Search—Special Equipment (Use Figure 26)

1. Engine Area
 - a. Check air and oil filters for authenticity and recent access
 - b. Check firewalls and cowling for attachments
 - c. Check battery box area
 - d. Check radiator content—(extremely hazardous check if equipment has been running) accomplish only if suspicious or engine is cold.
 - e. Check any tool or spares compartment
 - f. Check heater hoses and ducting
 - g. Assure no attachments to engine or housing
 - h. Check hydraulic tank content. Remove cap—assure no wires or strings hanging in tank.
2. Cab or Operating Area
 - a. Inspect seat cushions
 - b. Under or behind seats
 - c. Tool and storage areas
 - d. Behind visors
 - e. Under floor mats
 - f. Inside and around vent hoses and ducts
 - g. Behind dash and instrument panels
 - h. Parcels and packages (lunch kits, thermos bottles, canned and bottled drinks)
 - i. Check fuel tank. (No smoking) open and assure gasoline or diesel presence and that there are no wires hanging in tank.
3. Undercarriage
 - a. Check undercarriage frame work voids, access panels, channels and any shelf-like areas
4. Track Mechanisms and Wheels
 - a. Inspect backside of wheels
 - b. Between double wheels
 - c. Inspect behind track mechanisms and drive wheels
5. Booms, Masts and Buckets, etc.
 - a. Have booms lowered to check access holes, voids, channels, etc., for items and attachments
 - b. Check blades, buckets, blocks, etc., for attachments
 - c. Check around mast, top of masts, etc.
 - d. Inspect (with flashlight) all tubing which has open ends
6. Inspect Battery Compartment (battery powered vehicles)
 - a. Open battery compartment. Check around batteries. Open cells if appropriate.
 - b. Check access doors, top, bottom and sides of compartment.

7. Roofs

- a. Check top of roofs, roll bars, roll cages, etc.

8. Fender Wells

- a. Inspect fender wells with mirror or flashlight as required.

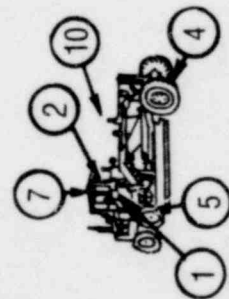
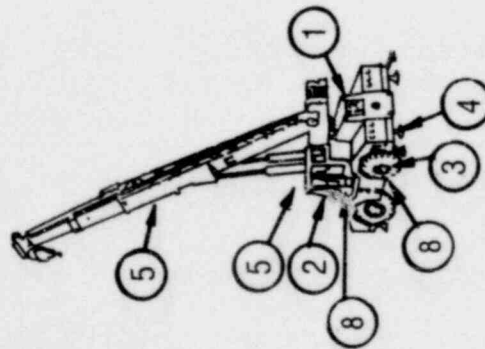
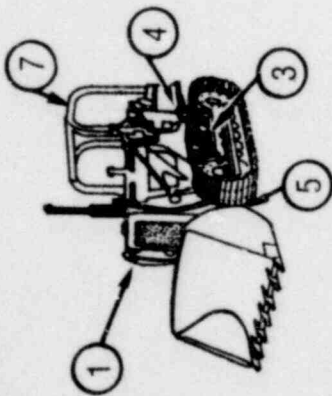
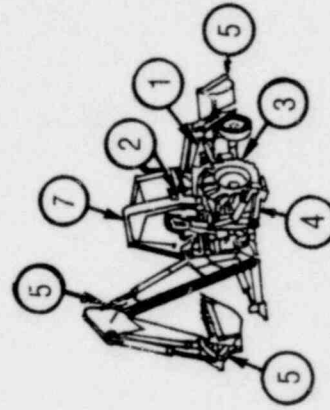
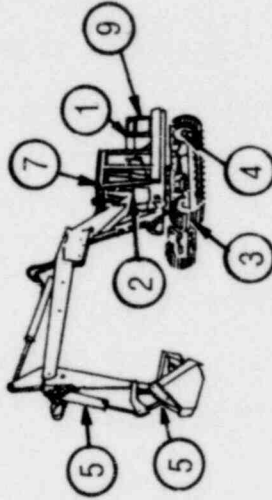
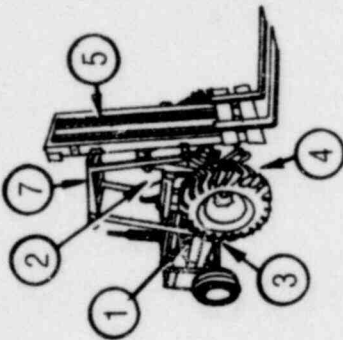
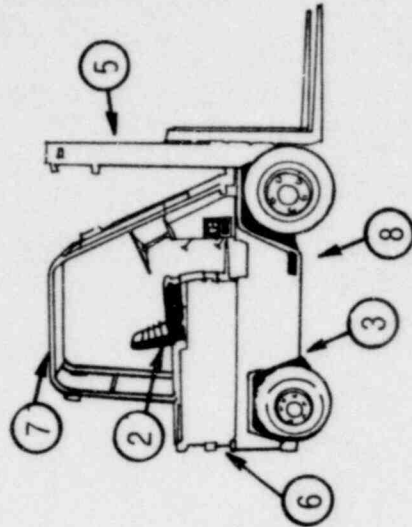
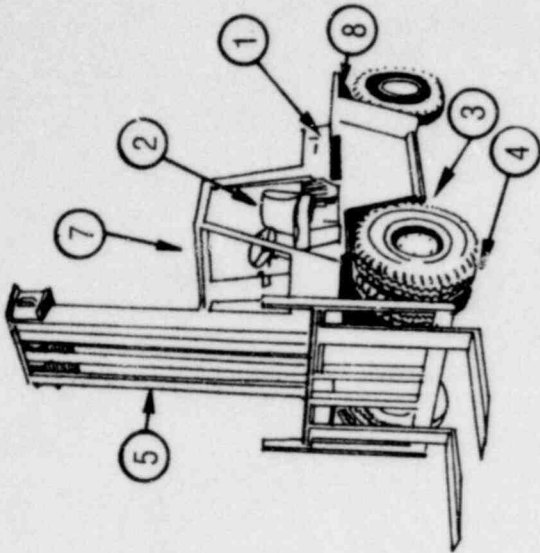
9. Special Apparatus

- a. Check any ballast boxes, compartments, liquid containers, attachment area.
- b. Check foot pads/stabilizers.
- c. Check other special apparatus.
- d. Check general hydraulic system, pipes, pumps, valves, reservoirs, etc.

10. Lights

- a. Inspect around lights for recent installation
- b. Assure lights are functional type (not false)

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LEVEL 2
 PHYSICAL/HAND SEARCH
 SPECIAL EQUIPMENT
 Figure 26

SEARCH PROCEDURE

Level 2—Physical Search—Rail Cars (Use Figure 27)

(Courier coaches, locomotives, cabooses and special nuclear material cars do not require search)

A. Couriered rail shipments

1. Seals on cask or fuel assemblies, etc., which are under escort should be checked prior to release or acceptance of the rail car.
2. All couriered cars, switch engines, etc., which enter the Protected Area should be observed for abnormalities.

B. Non-couriered rail shipments (cars picked up or delivered) and all rail cars not in custody of couriers

1. Check seals on casks, fuel assemblies, special nuclear material containers, etc. Assure they have not been subject to tampering.
2. Inspect all wheels (inside and out). Use mirror or look through the opposite side.
3. Inspect trucks and journal bearing inspection access areas (journal holes). Inspect inside of trucks and any voids of shelf area carefully.
4. Check coupler top, sides, and bottom. Inspect shelf areas or voids.
5. Check all undercarriage beams and supports. Accomplish this with a mirror, view from ends, view from opposite sides and/or crouching under the car. Inspect all access holes and voids in the undercarriage. Look at all shelf areas.
6. Inspect brake cylinders, air storage tanks, etc., in the undercarriage area. Assure that they appear authentic and do not have wires or attachments.
7. Inspect the top of the rail car bed. Check any tool boxes or equipment containers.
8. Inspect around dunnage and rail car cargo.
9. Inspect around casks or special nuclear material containers and support mechanism. Check all voids, behind braces, within channel, "I" beam and tubular supports.
10. Check any cooling control instrumentation panels and mechanisms. Assure that coolant storage tanks appear authentic without attachments.
11. Remove or inspect under tarps and dunnage.
12. If equipment or materials are being shipped on the rail car inspect them thoroughly (access panels, structure, boxes, etc.).

C. 13. If a box car is utilized, check interior walls and ceiling. Inspect between exterior and interior walls. With mirror and light inspect all voids and access areas.

14. Also inspect roof of car.

15. Inspect behind sign panels and doors.

D. Tank-Type Cars

If a tank car (fuel oil, LPG or any other chemicals or gas) is to be inspected, check these with extreme care both from a personal safety standpoint and from the fact that they contain tremendous potential energy and could be prime targets for sabotage.

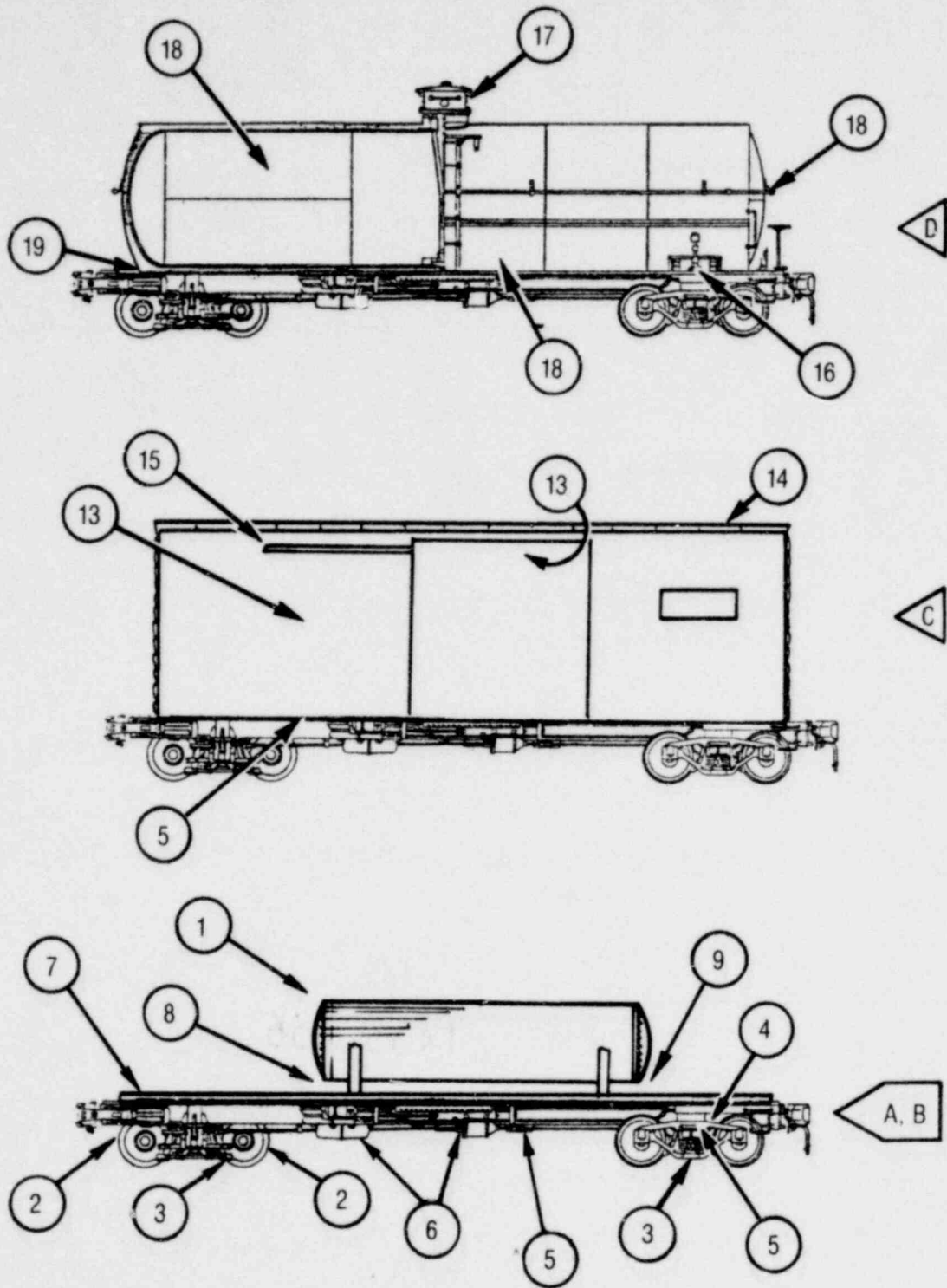
16. Inspect any hose lockers or pump panels.

17. Inspect fill port area and walkways.

18. Inspect the overall surface of the tank for attachments of explosives devices. Check for unnecessary wires, etc.

19. Inspect any channels or voids where tank joins carriage or bed.

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**LEVEL 2
PHYSICAL/HAND SEARCH
RAIL CARS**

Figure 27

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LESSON PLAN 007—VEHICLE SEARCH
TRAINEE STUDY PLAN: 007-3—Electronics Search
CLASSROOM TIME: 30 minutes

STUDY REFERENCES:

1. Manufacturer's data for search equipment used
2. Electronic Search Procedures
3. Special Nuclear Material Procedures

STUDY ASSIGNMENTS

(As listed above)

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SEARCH PROCEDURE

Electronics Search for Weapons & Explosives

1. Assure calibration of search equipment as described by manufacturer.
2. Provide warm-up time as specified by manufacturer.
3. Turn off vehicle engine.
4. Assure other engines in the area are not operating and that exhaust concentrations are not present.
5. Have all vehicle doors, hood, trunk, compartments, access panels, open.
6. Start search on downwind side of vehicle and proceed counter clockwise.
7. Search at a very deliberate rate to match response time of instrumentation.
8. Search around all vehicle fenders, fender wells, wheels, bumpers, grill work, hub-caps.
9. Search the interior behind dash, floorboard, under seats, and likely hiding places.
10. Search luggage and parcels in the vehicle passenger and cargo area. (Do not make holes in parcels to insert probe.)
11. Search headliners and undercarriage

If contraband is suspected follow specific site security incident procedures

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SEARCH PROCEDURE

Electronics Search for Special Nuclear Material (Use Figure 28)

The effectiveness of a hand-held special nuclear material monitor depends on the sensitivity and condition of the equipment, distance to potential concealment locations and sweep rate. For maximum effectiveness relative to vehicles and as required by equipment specifications, it is necessary for the monitor to be swept in a pattern which brings it within approximately 12 inches (.3 m) of all parts of a vehicle. The sweep rate should also be controlled to a maximum of approximately 1.5 feet per second (.5 m per second). The search must be deliberate and unhurried to be most effective.

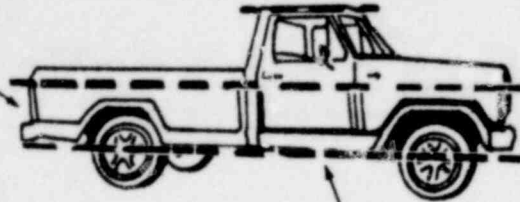
Particular attention must be paid to areas which have a blind side (seats, door panels, any two sided paneling). Where possible the monitor should be inserted; for example, dipping into wheel wells, under the dash instead of over the surface, under bumpers, etc.; the object being to minimize the effect of vehicle component shielding.

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Sweep under Hood
and Both Sides of
Engine



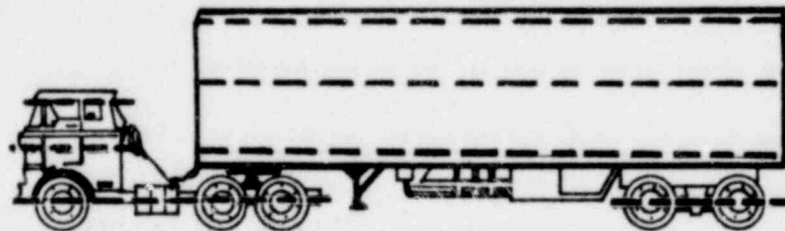
Sweep
Exteriors
as Shown



Sweep Interior Roof,
Seats, Floor and
under Dash

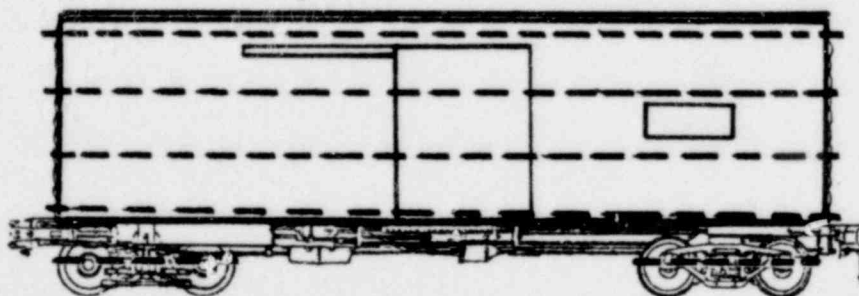


Sweep Ceiling and
Floor in Two Passes
Also.



Sweep Floor and Ceiling
in Three Sweeps Also

Sweep Ends
Same as Sides



**SPECIAL NUCLEAR MATERIAL SEARCH
PORTABLE PASSIVE GAMMA**

Figure 28

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LESSON PLAN: 007—VEHICLE SEARCH
TRAINEE STUDY PLAN: 007-4—Animal-Assisted Search
CLASSROOM TIME: 30 minutes

STUDY REFERENCE:

1. Dog Handling/Search Procedure

STUDY ASSIGNMENT

(As stated above)

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SEARCH PROCEDURE

(Animal-Assisted)

Typical procedures using search dogs is as follows:

1. Allow dog to run and exercise briefly to become familiar with its surroundings. Attach leash/collar.
2. Have all vehicle doors, hood, trunk, compartments, any covered openings, open. **This assumes vehicle has been recently occupied. If not, caution is to be exercised as opening doors during an actual search can be hazardous (rigged to trigger explosion) if the vehicle is abandoned or unattended!**
3. Proceed directly to the downwind side of the vehicle.
4. Start search at a specific point and search in a counter-clockwise manner paying particular attention to fenders, wheels, wheel wells, hubcaps and bumpers and door/passenger area.
5. If the dog shows interest in the inside of the vehicle let the animal go in and complete a search of seats, floorboards, and dashboards. (Reference Step 2 above).
6. The dog should be directed into and allowed to search the cargo areas.
7. The undercarriage should receive attention. This is difficult on automobiles but readily accessible on larger trucks and railcars.
8. If contraband is suspected, follow specific plan for security incident notification and action.

NOTE: Follow the specific procedure under which the search animal has been trained. The animal handler/trainer is best qualified in this respect.

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LESSON PLAN: 007—VEHICLE SEARCH

TRAINEE STUDY PLAN: 007-5—Demonstration & Practice

FIELD ORIENTATION TIME: 120 minutes

STUDY REFERENCES:

1. Lesson Plans 007-1 through 007-4.

STUDY ASSIGNMENT:

- A. This is the culmination of all previous instruction in the vehicle access, control and search process. How well you have learned the material previously presented will affect your success in actual field work.
- B. Review previous Lesson Plans again.
- C. Visualize how you will approach the field problem your training officer will present to you.

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b. A typical warehouse delivery for material other than special nuclear material.

16. How important is the knowledge of locally used containers in relation to identifying special nuclear material?

17. What is your best method for recognizing the presence of special nuclear material?

18. What are the typical markings for special nuclear material?

19. What should you do if your special nuclear material detector "alarms"?

20. Why are vehicles so important when considering the control of personnel and materials?

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21. What is your responsibility with respect to special nuclear material shipments under control of government guards and couriers?

22. Identify any possible security plan weaknesses you may have observed during your various field trips.

23. Inside the Protected Area, all vehicles which are parked and unattended should be . . . (describe).

24. What do you ask the driver to do before you initiate search of a vehicle?

25. When does the second person in a vehicle inside a Protected Area have to be a member of security?

26. Is a search necessary on vehicles leaving a Material Access Area?

27. Name and locate the protective equipment/devices used for detection of special nuclear material. Name and locate those used for explosives detection.

28. What is the basic objective of the search of incoming vehicles?

29. What are the possible results of a successful radiological sabotage attempt or theft of nuclear material?

30. Name four configurations of commercial explosives.

31. Name four configurations of improvised explosives.

32. Name two possible incendiary materials which may be available within a Material Access Area.

33. What type of military explosives would be the easiest to conceal?

34. What are the dimensions of the smallest military mine?

35. Name eight common tools which could be used by a saboteur.

36. Which is the most effective special nuclear material shield: (a) aluminum, (b) plastic, (c) lead?

37. When using the portable hand-held special nuclear material detector, how close to the suspect surface should you hold the probe?

38. How fast should you move the probe?

39. What equipment were you instructed to operate during your field work search demonstration?

40. Do the signs posted at entry points of this facility provide for vehicle search?

41. What are your legal restrictions relative to requesting a voluntary response during an interrogation?

49. Can an employee other than a member of security escort a non-employee?

50. Should you know the license number of an incoming ambulance during an obvious emergency?

51. Who should validate emergency vehicle access involving response to an emergency by a vehicle from outside of the Protected Area?

52. What are the escort requirements for emergency vehicles?

53. Should an exiting ambulance be checked with the hand-held special nuclear material detector prior to authorizing exit?

54. What is the search procedure for departing firefighting vehicles?

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55. What is the search procedure for incoming firefighting vehicles?
56. How many "search levels" are there?
57. What level of search would be considered the lowest level?
58. What level of search might require disassembly of the vehicle?
59. What authority do you have to search safe-secure trailer shipments?
60. How should a trained search dog be handled?

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