INSTRUCTOR'S MANUAL

MODULE BR-102

"OSHA, EXXON AND YOU"

FEBRUARY, 1975

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Training and Development
Department
Baton Rouge

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MODULE OBJECTIVE

The objective of this module is to inform first and second line supervisors in the Exxon Manufacturing circuit of the purpose of the Occupational Safety and Health Act, of the rights and duties of the employer and employee under the Act, of how an OSHA inspection is conducted, and of some of the basic safety and health standards which affect our workplace.

BACKGROUND INFORMATION

1. The module is not designed to replace a safety program.
2. The module is designed to "broaden" supervisors' knowledge beyond that which they actually need in the plant, because it is believed that this yields a more "rounded" supervisor.
3. The module is designed to be instructive to a relatively broad group of supervisors - as to both age and experience background.
4. It points out what OSHA has been putting emphasis on, in the safety area. Many of these things are elementary.
5. Some of the important requirements of the law have not been included - not because they don't deserve the attention of Exxon supervisors, but rather because OSHA has not been concentrating on them in their inspections.
6. The health portion of this module represents a pioneering effort, because it gets into an area that previously has not commanded the attention of supervisors. In this health area, the module leads OSHA.

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MODULE DESCRIPTION

	Minutes
Introduction Comments	5
Segment No. 1 (Videotape) "What OSHA is and How it Works"	16
Workbook Exercise No. 1	10
Segment No. 2 (Videotape) "OSHA Inspections"	19
Workbook Exercise No. 2	10
Segment No. 3 "Safety at Exxon"	
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Workbook Exercise No. 3	15
Part B (Videotape) "Electrical Violations"	32
Workbook Exercise No. 4	15
Part C (Videotape) "Machine Guarding & Other Violations"	20
Workbook Exercise No. 5	10
Segment No. 4 "Health at Exxon"	
Part A (Videotape) "Occupational Disease"	20
Workbook Exercise No. 6	10
Part B (Videotape) "Specific Health Hazards"	32
Workbook Exercise No. 7	15
Test on Total Module	30
Instructor's Closing Remarks	5
Total Time of Module	4 Hours 51 Minutes*

*Does not include time for discussion after Workbook exercise, coffee breakes, lunch, etc.

TERMINAL PERFORMANCE OBJECTIVES

By means of a written test, without the aid of written notes, the supervisor will demonstrate his knowledge of the Occupational Safety and Health Act by -

Recognizing -

- that "OSHA" stands for the Occupational Safety and Health Act of 1970
- a statement of the employer's general duty under the Act
- a statement of the employee's responsibilities under the law
- that some states have been authorized by OSHA to develop and enforce their own safety and health laws
- a statement of what group of employees are covered by the Act
- the organization which provided the source of the current safety and health standards
- the method by which OSHA standards are enforced
- the method by which an employer can seek relief from unjust citations, unjust penalties, and/or too short a period being allowed to correct deficiencies

Recognizing key safety items from a current list of frequently-cited and/or potential "workplace" violations:

- general housekeeping violations (scattered trash, slippery floors, etc.)
- open sided floors, platforms and runways
- stairway handrails
- exit markings (location, lighting, visibility)
- fire extinguishers (location and accessibility)
- aisle markings
- floor load limits
- storing flammables
- excavation and trenching
- scaffolding (tubular and "horse") safety

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Recognizing key safety items from a current list of frequently-cited and/or potential "electrical" violations:

- electricity in hazardous (explosive) areas
- grounding of electrical equipment
- proper use of flexible cords
- connections between dissimilar materials
- safe splicing of cables and cords
- guarding of energized parts above 50 volts
- isolation of arcing devices
- identification of "disconnects"
- protection of overcurrent devices from damage
- shielding of suddenly-moving parts
- tag-out and lock-out procedures

Recognizing key safety items from a current list of frequently-cited and/or potential "machine-guarding" and "other" violations:

- "point of operation" hazards (shear, table saw, lathe, etc.)
- in-going "nip points" (rollers, gears, chain and sprocket, belt and pulleys, and conveyors)
- flying chips and sparks
- rotating parts
- enclosure guards
- interlocking guards
- automatic guards
- special guarding devices (2-hand switch control, etc.)
- handling of gas cylinders (using, storing, marking, transporting)
- using compressed air for cleaning

Recognizing key health items associated with "occupational disease":

- the troublemakers (noise, heat and cold, vibration, radiation, dust, fumes, mists, vapors, gases and liquids)
- the contacts (how troublemakers can "get to you" - breathing, absorbing and ingesting)

- the results of being contacted (discomfort, inefficiency, sickness, disability, aging and death)
- the peculiarities of occupational diseases (slow to develop, latent, have similar symptoms, hard to recognize, and irreversible)
- tips to supervisors on how to be alert for hazards (use senses of sight, hearing, smell and touch - but mainly common sense!)

Recognizing key health items associated with "specific health hazards":

- the ten so-called bad actors (asbestos, lead, cadmium, benzene, sulfuric acid, phenol, hydrogen sulfide, chlorine, carbon monoxide, and noise)
- asbestos - a cause of scaring of the lungs and chest cancer (mesothelioma)
- asbestos fibers, if visible at all, mean a problem
- fumes of lead can be both inhaled and ingested
- lead fumes can cause even brain damage
- cadmium is fairly common as a coating and plating of metal
- the fumes of cadmium can be dangerously, even fatally toxic
- benzene, widely used as a solvent - affects the blood-forming organs of the body
- the vapor and liquid of benzene are both dangerous
- sulfuric acid can cause problems through skin contact and inhalation
- from chronic exposure to sulfuric acid, irration of the throat, eyes and sinuses, chronic cough and even erosion of tooth enamel can result
- phenol (carbolic acid) is toxic by skin contact, by breathing, and by ingestion
- skin absorption of phenol is very rapid, and can cause immediate collapse of the victim
- concentrated phenol has an anaesthetic effect, so that skin destruction often cannot be felt by the victim
- hydrogen sulfide (with a rotten egg odor) paralyzes the sense of smell so that, soon after exposure, a victim may not be able to tell he's in a high concentration of it

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- hydrogen sulfide stops one's breathing, by acting upon that center in the brain which controls the breathing
- chlorine can cause severe irritation and damage to the eyes and lungs, even in small concentrations
- carbon monoxide causes headache, drowsiness, nausea, and even death
- carbon monoxide poisoning prevents the hemoglobin in the blood from supplying oxygen to the brain
- excessively high noise levels can cause permanent hearing loss
- a high level of noise is one where you have to talk above your normal volume when you're at arm's length from someone

Identifying

- specifically what it is that a supervisor can do to help himself, his employees, and the company to comply with the OSHA law (be alert, be observant, be knowledgeable, inform employees, and set good safety and health example).

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PREPARATION FOR TEACHING

General

Familiarize yourself with the contents of both this instructor's manual, and the trainee workbook. Also, familiarize yourself with the tests and test keys in the test packet. Before teaching the course, be sure that you have seen all of the videotape presentations.

Arrange, if possible, to have the program introduced by an "upper" management representative. This is important as a means of impressing the class participants with the fact that the program has "management" backing and interest. (See Section J for suggested introductor remarks).

TRAINEE WORKBOOK

The trainee workbook should be issued to the trainees in advance of the class, if possible, so that they will have an opportunity to study it. Where this cannot be achieved, then the workbook should be issued to the trainees as soon as they enter the classroom.

Point out to trainees that the workbook exercises are <u>not</u> tests. They are simply a way to reinforce what is being taught!

At the end of each videotape presentation, give the trainees the allotted time to complete the appropriate workbook exercise. If time permits, answer any questions concerning the segment. At the end of the allotted time, start the next videotape presentation.

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TESTS AND TESTING

Test Packet

A separate test packet contains the test for this module.

Test Key Packet

A test key packet also contains a key (answer sheet) for the test. This should be kept absolutely secret - no xeroxing, etc.

Segmentation of Test

There is only one test for this module, and it is given after the trainee has completed all videotapes and workbook exercises. The test covers the information taught in all of the segments.

Test Correction

Each supervisor will correct his own test on the basis of correct answers verbally supplied by the instructor and then turn in his score anonymously. This will enable the instructor to come up with an average score for the entire class which the supervisor will then be able to use to measure his own performance in the class.

Time may not permit compiling test results until after the class is dismissed. In this case a summary of the test scores should be sent to each participant so that he may judge his "OSHA awareness."

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HOW TO OPERATE A VIDEOTAPE PRESENTATION

Videocassettes

There are six videocassettes for this module. Videocassette No. 1 contains both Segments No. 1 and No. 2. Segment No. 3 is in three parts, with each part being on a seperate videocassette. Segment No. 4 is in two parts, with each of those parts being on a separate videocassette.

Videotape Player and Television Receiver

Check the videotape player and the television receiver (or monitor) prior to starting the class to insure that both of them are functioning properly. Note that this instructor's manual contains a copy of the entire script for each segment of the module. The script will help to familiarize you with the presentations. In addition, you can use the script, as you watch the videotape playback, to make any notes you think will be helpful to you as you teach the module.

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Be careful not to misuse the television medium by attempting to teach too many people with one television set. Both distance from the set, and the angle of viewing, are important factors to be considered. Some practical suggestions are given below:

	Television Size		
	17"	21"	25"
Maximum distance of anyone from the set	10 ft.	12 ft.	15 Ft.
Maximum angle of anyone from picture tube	45°	45°	45°.
Optimum number of people for one set	9	11	13
Practical maximum number of people for one set	12	15	18

For classes larger than the "practical maximum" numbers shown above, two television sets should be used, or the class should be divided into two groups to be trained separately. By the use of a "Y" cable fitting, one tape player and one videocassette can operate two television sets simultaneously.

Be sure to rewind all videocassettes when you're finished with them, so that they will be ready to show the next time they're used. Also, when the class is finished, be sure to turn off the electric power to both the television set and the videocassette player.

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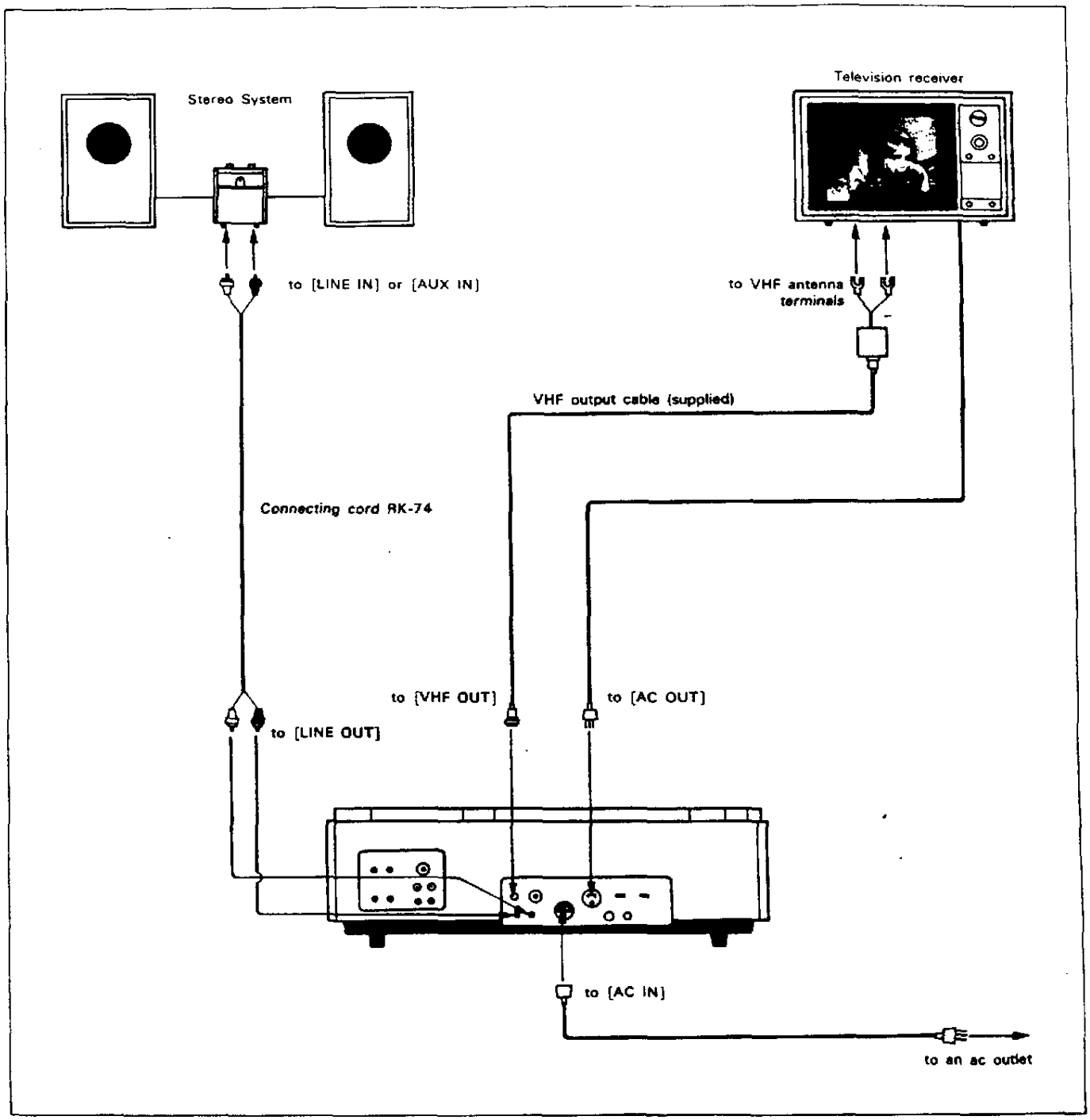
PLAYBACK THROUGH A CONVENTIONAL TELEVISION RECEIVER

Connections



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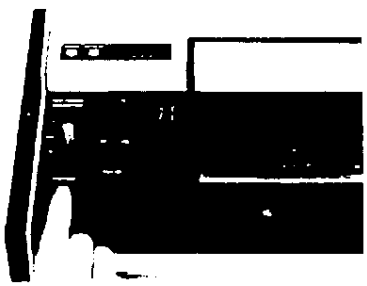
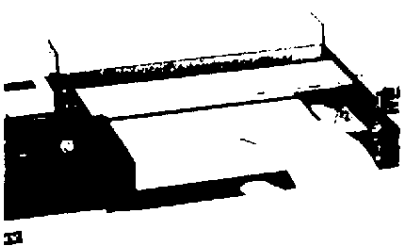
Operation

1 Complete the connections shown in the figure

2. Push the POWER switch to turn on the *VIDEOCASSETTE* Recorder The green pilot lamp will light Turn on the TV set. (Leave the power switch of the TV set ON and the TV will be turned on and off by the POWER button on the VO-1600.



3. Pull the EJECT lever toward you and insert the *VIDEOCASSETTE as* illustrated. Slide the *VIDEOCASSETTE* in as far as it will go.

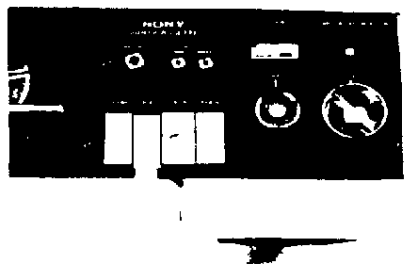


Once in place, the *VIDEOCASSETTE* will drop of its own weight into play position, and the EJECT lever will return to the former position

4. Set the CHANNEL SELECTOR on the rear panel to CH-3 or CH-4, whichever is inactive in your area. For example, if Channel 4 is in use in your city, switch the CHANNEL SELECTOR to CH-3. Once this selector has been set, there is no need to reset it.

5. Set the Channel Selector of the television receiver to the same channel number that has been chosen for use by the rear panel CHANNEL SELECTOR of the *VIDEOCASSETTE* Recorder.

6 Press the PLAY button. The orange STAND BY lamp will light After several seconds, the lamp will go out and playback of the *VIDEOCASSETTE* will begin



7 Adjust the control knobs on the television receiver as in normal TV viewing to obtain a clear, sharp picture.

8. The audio signal produced by the TV set is determined by the setting of the AUDIO SELECTOR (VHF) as follows:

1 ·····to reproduce the sound from the Number 1 (L) audio track.

MIX ···to mix the sound from both Number 1 and Number 2 tracks (monaural sound from a stereo recording).

2 ·····to reproduce the sound from the Number 2 (R) track.

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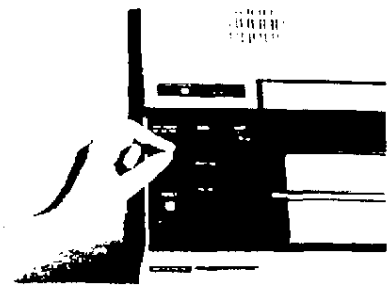
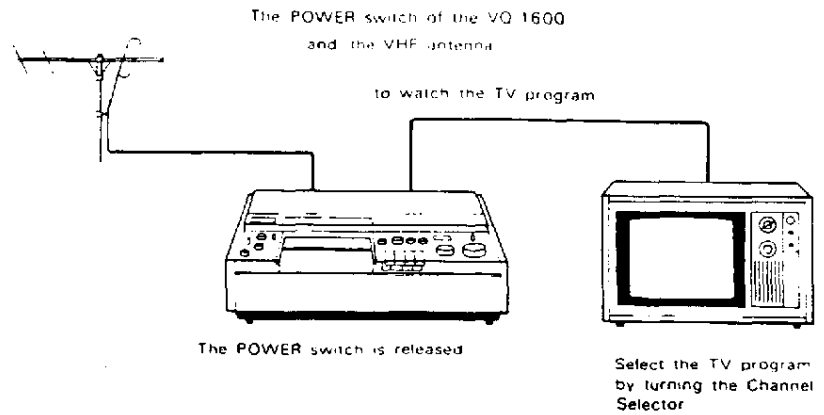
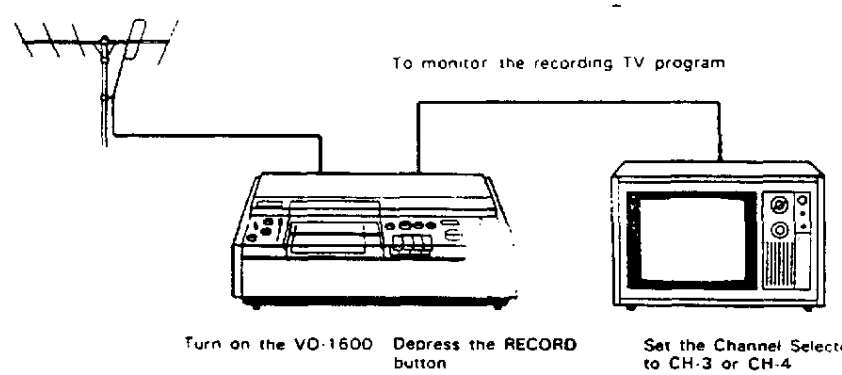
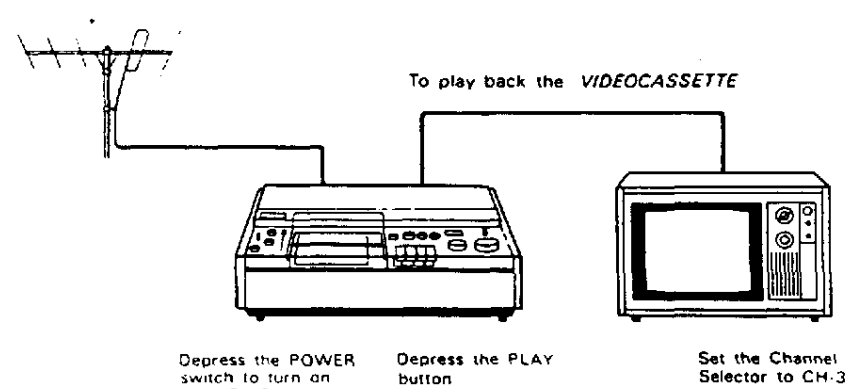


9 If a stereo system is in use, turn down the volume at the TV set, and adjust the volume control on the stereo amplifier as required.
NOTE: The setting of the front-panel AUDIO SELECTOR (VHF) has no effect upon the audio signals produced at the LINE OUT audio output jacks.

10 When the tape comes to its end, the machine will stop automatically, and the function buttons will be unlocked. You may also stop the tape at any point by pressing the STOP button.







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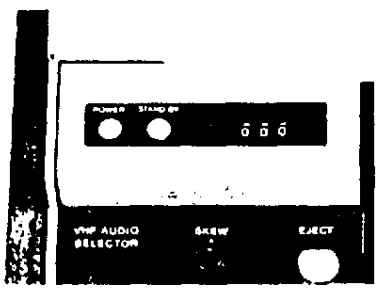
VIDEOCASSETTE Removal

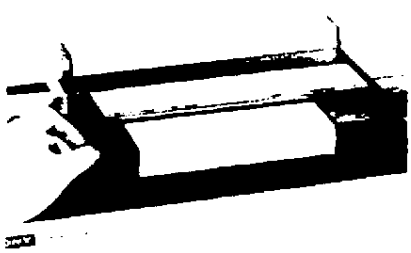
The *VIDEOCASSETTE* may be removed after the machine has been put into the stop mode, either automatically or by pressing the STOP button. When stop is initiated, the tape will thread back into the *VIDEOCASSETTE* to permit removal.

For the few seconds that it takes for the tape to return to the *VIDEOCASSETTE*, the orange STAND BY lamp will light. When the lamp goes out, unthreading is complete, and the *VIDEOCASSETTE* may be removed.

1 Press the STOP button and wait until the STAND BY lamp goes out. Or if the machine has stopped automatically, check to see that the STAND BY lamp is extinguished before proceeding.



2. Pull the EJECT lever toward you.



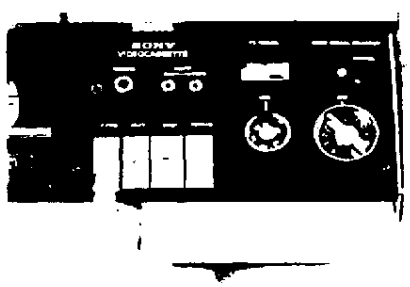
3. Remove the *VIDEOCASSETTE*

Rewind and Fast Forward

Rewind and fast forward operations may be performed after the machine has been placed in the stop mode.

1 Press the STOP button and wait until the STAND BY lamp goes out signaling the completion of the unthreading operating.

2 Press F FWD or REWIND buttons.



3. Press STOP at the desired point on the tape. The tape will also stop automatically at either end of the tape.

Operating Notes

1 Always wait until the orange STAND BY lamp goes out before trying to eject the *VIDEOCASSETTE* or initiating fast-forward or rewind operations.

2. Remember to go to STOP when changing functions. For example, to go from play to rewind, it is necessary to go to STOP, wait until the STAND BY lamp goes out and then press REWIND.

3 If the machine fails to function as desired when you press the PLAY, REWIND or F FWD buttons, check to make sure that the tape is not at either end of its travel.

For example, if the tape has reached the end of the play operation and has stopped automatically, pressing the PLAY button will cause the tape to thread and then shut off automatically.

Similarly, if the tape is fully rewound, and the REWIND button is pressed, the machine will continue to run in the rewind mode.

In this case, press the STOP button before proceeding with the desired mode of operation.

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Adjustment of the Playback Picture

Skew Adjustment

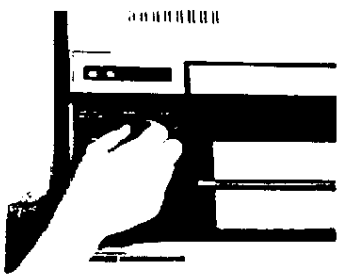
Observe the playback picture on the TV screen. Picture distortion in the upper part of the screen may be corrected by turning the SKEW control. This knob returns automatically to its center position when the RECORD button is pressed.

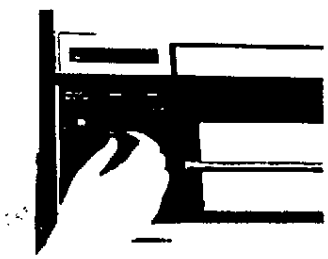
Tracking Adjustment

In some cases streaks of snow may appear in the playback of tapes made on other *VIDEOCASSETTE* Recorders. To correct this condition perform the tracking adjustment as follows.
Pull the TRACKING control straight up and then rotate it in either direction until the best picture is obtained. When playback of this particular tape is finished, return the TRACKING knob to its original position by pushing it down.

Color Lock Adjustment

The *VIDEOCASSETTE* Recorder is preadjusted at the factory to produce correct color. Therefore, it is rare adjustment of color lock will be required. However, if the picture should suddenly lose color or cannot maintain correct hues, adjust the COLOR LOCK control. Pull out this control and rotate it slowly to the left and right until a normal picture is restored.
Push the control back in when this particular tape is finished.





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EQUIPMENT AND SUPPLIES

Equipment and supplies should be obtained early, and inventoried before training begins, to insure that the quantity on hand is sufficient for class requirements.

Checklist of Materials Supplied with Module

All items listed below are supplied with this module:

( ) Instructor's Manual (one per instructor)
( ) Workbook (one per trainee)
( ) Test Packet
    ( ) Test BR-102 (one per trainee)
( ) Test Key Packet
    ( ) Test Key BR-102 (one per instructor)
( ) 6 videocassettes, 3/4" color - one containing Segments No. 1 and No. 2, and one each for Segments No. 3A, 3B, 3C, 4A, and 4B.
( ) Television set (sets) - as many required to effectively teach the class.
( ) Cable (cables) to connect television set (sets) to the videocassette playback unit.

A list of publications which can be used as handouts to supplement the program are given in Section J. If these materials are to be used at your facility they must be ordered by you from the publisher. A six to eight week lead time is required for many of the items.

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MODULE BR-102 "OSHA, EXXON AND YOU"

SEGMENT NO. 1

"WHAT OSHA IS AND HOW IT WORKS"

A place of business can be a quiet place at certain times anyway, like right now, no one around; no sign of the frantic bustling activities that we associate with normal working hours. Yes, a place of business can be a quiet place - peaceful and safe. But come tomorrow morning, - tomorrow morning is a different story. Now the silence is penetrated by the sounds of movement, of power tools, trucks and equipment, of cash registers, shopping carts, of office machines and typewriters. In short, the sounds of men and women, busily involved in the things that working people do in places like these all across the nation. And what was a peaceful scene becomes a scene of activity and vitality. What's quiet becomes alive, with the pulsating sound of things being created, things being marketed, things being added, subtracted, inventoried and recorded. And what was a place of safety - well -- it becomes a place where safety can't automatically be counted on as a natural, deserved fact of life. On the contrary, in any kind of business the job of assuring a safe place to work requires a conscious, determined and intelligent effort on the part of everyone involved. And that's what we're going to be talking about for the next several minutes. Safety - but more specifically, we're going to cover something that makes the job of creating a safe and healthful working environment, a matter of still greater importance to employers, supervisors, and employees alike. We're going to be talking about the Federal Occupational Safety and Health Act of 1970.

The Occupational Safety and Health Act of 1970. It's quite a law, and quite a mouthful, too. So let's call it by the name most people refer to it as OSHA. O-S-H-A. Actually, those initials refer specifically to the Occupational Safety and Health Administration. That's the federal office that has been established to implement and enforce this new law.

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But the important thing is this, that whether you hear the act referred to as OSHA or OSHA or the job safety law or any number of other names currently in use, its one of the most sweeping pieces of legislation ever enacted in terms of its effect on our nation's businesses and work force.

When the law was signed by the President in December, 1970, it put into motion the wheels of a gigantic piece of machinery that has since made a lasting impact on over five million businesses throughout the fifty states, and several U.S. possessions, and more than 60 million employees. Now, that's practically every business and employee in the nation. In fact, about the only exceptions are workers who are protected by a similar government program already in effect - the Federal Coal Mine Act, and the Atomic Energy Act, for example. But getting back to OSHA - its purpose as declared by Congress is to assure, so far as possible, every working man and woman in the nation, safe and healthful working conditions, and to preserve our human resources.

And to back up these words, the Act provides for a series of penalties for failure to comply, ranging for adverse publicity to some pretty severe blows in the pocketbook. The key to avoiding them is knowing what the responsibilities are; whose they are; and how they can be met. So let's look at them now.

First, every employer has the general duty to furnish each of his employees working conditions that are free from recognized safety and health hazards. That's what those words on the screen boil down to. If you've heard people refer to the general duty clause of the Act, this is what they're talking about.

The employer's second responsibility is more precise. He has the specific duty to comply with safety and health standards promulgated under the act. The standards are the real meat of the Act, and we're going to be talking more about them in a moment.

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The employee has important responsibilities, too. Specifically, he has the duty to comply with the Safety and Health Standards, as well as any other rules and regulations connected with OSHA that he might be subject to.

So you can see that compliance is really a job for everyone involved in a business operation. And team work is necessary to insure the objectives of the Act.

Now, we've talked about standards. When you first look at the OSHA standards and the supplements that have since been added, they can seem pretty frightening. But you'll soon see that they're mostly concerned with common sense things you've been doing all along. All OSHA has done, really, is put a spot light on basic safety and health practices that all businesses and employees should be paying attention to as a matter of everyday routine. The Safety and Health Standards prescribed by OSHA are the result of a great deal of study and research by the Department of Labor in cooperation with Department of Health, Education, and Welfare; and other sources like Trade Associations, and similar employer and employee groups. In general, they consist of rules for the avoidance of hazards which are proven by research and experience to be harmful to personal safety and health.

You'll find that most of them, such as fire protection standards, for example, effect virtually all business; while others, such as the handling of compressed gases, have a more limited application. But one thing is clear, the standards are going to help you in determining precisely what you must do to meet your responsibilities under the act, in places like this, and this, and this, and in places like this.

The standards were first published in the Federal Register. And the supplements added since then have also appeared there. If you don't yet have a full set of standards now in effect, the U. S. Government Printing Office or the OSHA regional and area offices can help you. Check also with such organizations as The Bureau of National Affairs, The National Safety Council and Commerce Clearing House. And don't forget your local and State Chambers of Commerce, and any trade associations you belong to.

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Once you have the full set of OSHA standards and other materials from the sources we've mentioned, you've got all you need. Right?... Wrong!!... The fact is many states have safety and health requirements that are in addition to those imposed by OSHA. Better check with your State Chamber of Commerce or your local trade association. They'll tell you what the situation is in your state.

Now, in case you're wondering just how the government makes certain that your business and its employees are meeting their responsibilities under OSHA, that's clearly outlined in the Act as well. They use inspectors. The official term for these experts is Compliance, Safety and Health Officer. But since that's as big a mouthful as the complete name of the Act itself they are often referred to as Safety Specialist.

Now, generally the Compliance Officer conducts a wall to wall inspection of every area and situation that can affect an employee's safety and health. He checks such things as lighting and ventilation, and passageways to see that they are properly marked and free from obstructions, guard rails for stairways and platforms, and precise labeling and storage. He carefully inspects to determine whether a hazard exists that can cause severe electrical shock or fire, and that wiring is adequate and well insulated. He checks to see if power equipment and even vending machines are properly grounded. He determines that flammable and explosive materials are correctly labeled and stored. He checks such equipment as ladders and scaffolding to see if they are free from defects and are adequate for the job they are being used for. He ascertains whether potentially dangerous machines are properly guarded, and whether the guards are in place whenever the machine is being used. And, of course, he observes the use and condition of personal and protective equipment, such as hats, safety glasses, breathing filters, safety shoes and other clothing. We could go on but I think you get the idea now of some of the general areas covered by the OSHA safety and health standards. But that's not all the safety specialist looks for during his inspection. He also checks to see if the employer has properly posted the notice supplied by the Department of Labor, that informs employees of their rights and duties under the Act. This notice must be posted by the employer where it will be seen by all employers regardless of where they work .... inside or out.

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And the safety specialist also checks to determine if the employer is observing the record keeping requirements established as an important part of OSHA regulations. These include the recording in a log shown here as OSHA Form 100, of Job Related Fatalities, Serious Injuries or Illnesses. It's not necessary to record minor first aid treatment, but a record must be kept of injuries or illnesses that involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job.

And the Secretary of Labor might also require that a record be kept of an employee's exposure to toxic materials, or other harmful agents.

OSHA requirements may also stipulate that a supplemental record must be completed for each injury or illness that is recorded in the log.

OSHA Form 101, shown here, can be used for this purpose. But if you already have insurance or Workman's Compensation forms that contain virtually the same information, OSHA may accept them as an adequate substitute for Form 101.

The final requirements under the record keeping provision, is the posting of an annual summary of the injuries and illnesses recorded in the log. This form, OSHA Form 102, must be completed at the end of each year, and posted where the employees will see it. The regulations stipulate that it should be posted by the first of February, and left up for at least 30 days.

Now, you may be asking what happens if a compliance officer detects a violation? Well, if that happens, he first informs the employer of the violation, then he notifies his area director. The area director issues a citation which must be posted at or near the place where the violation occurred, and left there for at least 3 working days, or until the violation is abated, whichever is longer. A citation may or may not be accompanied by a penalty. It depends upon the seriousness of the violation. Some violations are subject to mandatory penalties that can run anywhere from a few dollars, to a thousand or more for repeated or willful violations.

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Of course there are provisions in the Act which help to prevent undue hardship in cases where an employer's attempt to comply can put him in a bind. For example, the Act gives employers the opportunity to request temporary variance from some of the standards if they can show that they can't meet a deadline because of such things as the unavailability of equipment or professional and technical personnel to do the job.

The Act also gives small businesses the opportunity to obtain assistance from the Small Business Administration for alterations to comply with OSHA Safety and Health requirements. If you think your business might be eligible, your best bet is to contact the SBA office nearest you.

And finally, the Act gives employers fifteen working days to contest any citations or penalties proposed as a result of a Compliance Officer's inspection. Subseuquent hearing before a special OSHA Review Commission then results in an order that either modifies, vacates, or affirms the citation or penalty.

Now, we're going to give you some time to review what you have learned so far. Then I will be back to show you in some detail, what happens when a Safety Specialist knocks on your door, and announces his intention to conduct an OSHA inspection. I think you'll find it interesting.
See you then.

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MODULE BR-102 "OSHA, EXXON AND YOU"

SEGMENT NO. 2

"OSHA INSPECTIONS"

You are looking at a Compliance Safety and Health Officer of the U. S. Department of Labor. Call him OSHA Inspector, Compliance Officer, Safety Specialist, whatever. You should get to know him better. Take a closer look. What do you see? No horns, no pointed teeth, just an ordinary guy with a job to do. And that's what he's doing right now. He's on his way to make an inspection of a place of business, subject to the rules and standards established by the Occupational and Safety and Health Act of 1970. And what we're going to do in this film is follow him. We're going to observe just what happens in an OSHA inspection, from the moment the Compliance Officer walks through the door, to the time he leaves. And by the time we finish, you'll have a better idea of what your company can expect if and when you are selected for an OSHA Inspection.

I'm going to introduce the Safety Specialist who will be our guide. I'm going to ask him a few questions. Now we're going to be doing all the work, so why don't you sit back and relax. All set? Then let's start with this question.

If OSHA affects over 4 million businesses in this country, I hope you've got a lot of stamina, because your work is really cut out for you. Just how many of you are there? And how can you hope to inspect every single business covered by the Act?

Well, you're right in one sense, it is a big job and ultimately the Department of Labor expects to have over two thousand Safety Specialists trained to make OSHA inspections. But to be realistic, even that many are going to find it next to impossible to cover four million businesses. And that's why a lot of hope and faith is being placed on voluntary compliance. OSHA figures that if it can convince employers and employees that its mission is a sound one, and that safety just plain makes good sense, then

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voluntary compliance will go a long way toward assuring the objectives of the Act, which after all is not punishment, but the elimination of hazards in the work place.

OK, that brings up my next question. If you're not going to systematically call on all four million businesses, how do you determine where, and when an inspection will be made?

It's based on a system of priority. Now the top priority that can bring about an inspection, is if a fatality occurs in a work place, or a catastrophe.

What do you mean by that?

Where a number of employees are killed or severely injured, in a single accident. Like an explosion or a fire for instance. The second way an inspection can be instigated is by an employee complaint. Now that is, if an employee believes that a violation of a Health or Safety Standard exists, he can submit a written complaint to the Secretary of Labor. It must give a reasonably detailed account of what the employee believes the violation to be, and it must be signed by one or more employees or their representatives.

Does the employer get a copy of this complaint?

He's given a copy of the complaint at the time of the inspection.

That means then that the employee is sticking his neck out too, doesn't it?

Not really, because he can request that his name be deleted from the complaint given to the employer. Futhermore, if the employee feels that he is being discriminated against by the employer because of the complaint, he can petition the OSHA Regional Administrator for an investigation. And if the evidence supports his claim, legal proceeding can be taken against the employer.

OK, those are two reasons. Are there any others?

Yes, there are certain industries which statistics have shown to be

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Module No. BR-102 TITLE OSHA, Exxon and You

SEGMENT 3A - "Safety at Exxon" - The Work Place

VTR SCRIPT - PAGE 1 OF ____ DATE 12-9-74 BY JWW/GJW

SCENE	CAMERA	SHOT	TECHNIQUE FOR GOING INTO SCENE: C=CUT; Z=ZOOM; W=WIPE; F=FADE (OR DISSOLVE) (ECU=EXTREME CLOSEUP; MCU=MEDIUM CLOSE-UP; DS=DISTANCE SHOT)	VIDEO	AUDIO
1	A	ECU	C	Chart # 1 EXXON logo	Music (5 Seconds)
1a	C	ECU	C	Slide # 1a "Presents"	Music (3 Seconds)
2	A	ECU	C	Module BR-102, OSHA, Exxon and You	Music (5 Seconds)
3	C	ECU	C	Segment No. 3 "Safety at Exxon" PART--A "WORK PLACE VIOLATIONS"	Music (10 Seconds)
4	B	ECU	C	Tim	You may be wondering why this program that you're taking part in today wasn't presented earlier. It isn't because Exxon has ignored OSHA up to now - quite the contrary. When the act took effect in April 1971, the Safety Advisors from most of the domestic manufacturing facilities met in Houston to form an OSHA Task force. This group reviewed the OSH Standards, selected those which were most significant to refining and chemical plant operations, and developed an audit form, so that a preliminary view of our compliance with OSHA could be obtained.
5	A	ECU	C	Chart # 5	Each facility then conducted its own audit (points) and the results were reviewed by the OSHA Task Force (points). The Task Force then developed a priority order plan for correcting the deficiences th were found.(points). Many of the manufacturing facilities set up their own OSHA Steering Committees to provide local interpretation of the OSHA Standards and to follow up (points) on the areas where their facilities were deficient.

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TITLE OSHA, Exxon and You

Module No. BR-102 SEGMENT 3A - "Safety at Exxon" - The Work Place

VTR SCRIPT - PAGE 2 OF ____ DATE 12-9-74 BY JWW/GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR SEGUING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) → (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
6	B	MCU	C	Tim	Local audit forms were developed which meshed OSHA standards with local safety and operational requirements. The aim was to blend OSHA in with the existing safety and safe operations programs. Purchasing specifications were changed to reflect OSHA requirements. Engineering Standards were reviewed and modified as necessary. Safety handbooks were supplemented to reflect OSHA requirements.
7	B	ECU	Z	Tim	In order to be sure that everybody who had to be, was kept informed, the safety directors met with their management people to tell them about the Occupational Safety and Health Act, and how it affected their installation.
8	C	ECU	C	Booklet	In late 1971 each plant manager sent this booklet titled "The Occupational Safety and Health Act of 1970" to every one of his employees. The need for providing supervisors with additional information was recognized early in the game. However, with the many changes that OSHA made in its early stages, it just wasn't practical to put a program together at that time.
9	B	MCU	C	Tim	Now that OSHA is in full swing, however, and the OSHA organization has been fairly well established, Exxon thinks it's timely - certainly more timely than it would have been earlier - to talk about those particular aspects of OSHA which do involve you, as Exxon supervisors.

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TITLE OSHA, Exxon and You

Module No. BR-102 SEGMENT 3A - "Safety at Exxon" - The Work Place

VTR SCRIPT - PAGE 3 OF ____ DATE 12-9-74 BY JWW/GJW

SCENE / CAMERA / SHOT → TECHNIQUE FOR SEGUEING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT		VIDEO	AUDIO
10	B	MCU	C	Tim	What you have to keep in mind is that OSHA is just a part of the overall safety effort at Exxon's refiner and plants. Exxon has been active, for so many years in the area of employee safety, that you've already learned, in other ways and through other training programs, most of the safety practices that are talk about in this program. Here's the difference.
11	A	ECU	C	Chart # 11	What we talk to you about and show you in this program relates directly to OSHA, and it relates in this way. The examples of improper work practices a violations that we use are either actual violations in the same types of work situations that go on in Exxon lants, or they're jobs involving potential violations.
12	B	ECU	C	Tim	The chances are that you already know how to work safely on every type of job that you're ever asked to do. After all, as Exxon supervisors, you have at your disposal some pretty well-developed safety standards, check lists, and other safety information
13	A	MCU	C	~~Tim~~ Chart 13	But, it's very unlikely that you could know - without somebody telling you what they are - the specific kinds of violations that OSHA has been concentrating or the kinds that we believe they would concentrate if they actually showed up to make an inspection at of Exxon's refineries or plants.

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Module No. BR-102 TITLE OSHA, Exxon and You
SEGMENT 3A - "Safety at Exxon" - The Work Place

VTR SCRIPT - PAGE 4 OF ____ DATE 12-9-74 BY JWW/GJW

SCENE	CAMERA	SHOT	TRANSITIONS FOR DESIGNATED SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)	VIDEO	AUDIO
14	B	ECU	C	~~Chart # 14~~ TIM	It's our responsibility to tell you these things. We feel that with this knowledge under your belt, you'll be much better able to do the kind of job in safety that will help the Company to avoid safety violations. And, the avoidance of violations is a worthwhile goal for two very good reasons.
15	A	ECU	C	Chart # 15	First, and most important, of course, (points to chart) is that violations could mean "safety oversights" - that is, that the Company actually did overlook some point in the safety area. Since oversights of this kind could endanger the lives and the well-being of Exxon employees, they simply can not be tolerated.
16	C	ECU	F	Chart # 16	Second, A violation and (points to chart) "Corporate Citizenship" don't mix - that is, an OSHA violation in any Company, especially one like Exxon that tries to do an overall fine job in the safety area, is not in keeping with the company's objective to be a good law abiding corporate citizen in all of its activities.

Module No. BR-102 TITLE OSHA, Exxon and You

VTR SCRIPT - PAGE 5 OF ____ DATE 12-9-74 BY JWW GJW

SCENE | CAMERA | SLIDE | TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE

SCENE	CAMERA	SLIDE		VIDEO	AUDIO
17				DROPPED	
18	A	ECU	C	Chart # 18	As you saw a few minutes ago, the title of this segment is "Safety at Exxon". What we really mean by that is "Safety at Exxon as it involves OSHA and OSHA's requirements with regard to safety."
19	B	ECU	C	Tim	When you consider how many safety standards have been made into law by OSHA, we could spend days trying to discuss them. And, what's even worse, even <u>then</u> only a small percentage of the standards would apply to any individual supervisor's job.
20	B	MCU	Z	Tim	Because of this, we've taken a list of the 25 General Industry Standards which involved the greatest number of OSHA violations during a recent quarter, and thought we'd talk with you about those.
21	C	ECU	C	Chart # 21	To keep it simple, we've boiled the discussion of safety down to four categories - "the workplace," "electrical," "machine-guarding," and "other." Let's start by examining the first category (points to it) "workplace." <u>Every</u> supervisor has some responsibility for <u>this</u> area.

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Module No. BR-102 TITLE OSHA, Exxon and You

3A - SAFETY AT EXXON - THE WORKPLACE

VTR SCRIPT - Page 6 of ____ DATE 12/9/74 BY JWW GJW

SCENE: TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE

SCENE	CAMERA	SHOT		VIDEO	AUDIO
22	B	MCU	C	Tim	We believe it's fairly obvious what's meant when we talk about "the workplace." It's the facility or area in which the job gets done. It can be a building, a unit area, or a pipeband. It does not include the tools or equipment associated with the job. Here's the list of OSHA violations we're going to talk about for the "workplace category".
✓23	A	ECU	C	Chart # 23	(finger points to items, one by one, as named) Poor housekeeping --- open-sided floors --- stairway handrails --- exit markings --- fire extinguishers --- aisle markings --- floor load limits --- and storing flammables.
✓24	C	ECU	F	Chart # 24	Probably the most significant items on this list are ones involving people slipping or falling down - the first three - poor housekeeping --- open-sided floors, and stairway handrails. For years Exxon has been active in this area, because we know that poor housekeeping in the workplace can lead to accidents.
✓25	A	ECU	C	Sketch # 25	Things like tools, bolts, pipe, scrap materials and othe junk and trash scattered throughout the workplace - like you see here - are a surefire way to cause someone to tr and fall, and hurt himself.
✓26	C	ECU	C	Sketch # 26	Oil and water leaks from piping, and other equipment, are also good ways to cause somebody to fall and get seriously hurt. And, here's something we've all got to keep in mind.
✓27	A	ECU	C	Sketch # 27	You can't go around thinking that housekeeping is just for mechanical employees to take care of, or just for process employees to handle. It takes the effort of everyone to keep the workplace in condition. Keeping things cleaned up - as the job progresses - is a good habit to develop. Let's take a look at some of the things that can happen as a result of poor housekeeping.

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TITLE ___OSHA, Exxon and You

Module No. BR-102 SEGMENT 3A = "Safety at Exxon" - The Workplace

VTR SCRIPT - PAGE 6a OF 17A DATE 12/9/74 BY JWW/GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR SEQUENCING SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
28	C	ECU	C	Sketch # 28	Slippery surfaces can cause a person to fall - much harder and much quicker than most of us realize. The wrong kind of blow to your head, even though it results from a simple fall, can kill you.
29	A	ECU	C	Sketch # 29	Tripping over material that you didn't expect to be in your path can lead to the same kind of trouble you get into when you slip and fall. You can hurt yourself very seriously.
30	C	ECU	C	Sketch #30	Material projecting into your path above ground level can cause all kinds of injuries - punctures, broken ribs, eye damage, fractured skulls, you name it.
31	B	MCU	C	Tim	We're not telling you about these examples because we think you don't already have a pretty good appreciation for the potential hazards of poor housekeeping. We're telling you because one thing you can be sure of is that poor housekeeping is something that even the newest compliance officer can, and probably will, notice.
32	A	ECU	C	Chart 32	The next two types of violations relating to falling -- open-sided floors, and stairway handrails, are from a broader OSHA standard, called "Guarding Floor and Wall Openings and Holes." I thought it would be better to look at the whole standard, rather than just these two examples listed here (points to them). And, here are some of the points made by OSHA in that overall standard.

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Module No. BR-102 TITLE OSHA, Exxon and You SEGMENT 3A - "Safety at Exxon" - The workplace

VTR SCRIPT - PAGE 7 of 17a DATE 12-9-74 BY JKW/GJK

SCENE	CAMERA	SHOT	TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (or DISSOLVE) (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)	VIDEO	AUDIO
33	C	ECU	C	Sketch # 33	Ladder openings (Point to it) shall be guarded by a standard handrail (Point to it) and toe board (Point to it).
34	A	ECU	W	Sketch # 34	The entrance to the ladder shall be protected either a swinging gate, as you see here (Point to it) --
35	C	ECU	W	Sketch # 35	- or offset like this (Point to it) so that a person can't walk directly into the opening.
36	A	ECU	W	Sketch # 36	At Exxon, we've generally used chain across ladder openings like these, (Point to it) We believe that this offers equally good protection - in fact, we understand that the American National Standards Institute plans to list chain as a suitable means of guarding in the next revision of the standards.
37	C	ECU	W	Sketch # 37	Every hole in the floor into which a person could accidentally walk - as you see this fellow about to c shall be protected --
38	A	ECU	W	Sketch # 38	--by either a standard handrail (Point to it) or a cover (Point to it.)
39	C	ECU	W	Sketch # 39	Even temporary floor openings - like this one - shall be protected (Pause 2 seconds)
40	A	ECU	W	Sketch # 40	-- by either a standard handrail, or - as shown here by someone in constant attendance next to the tempora floor opening.
41	C	ECU	W	Sketch # 41	Open-sided floors, (Point to it), platforms (Point to it), and runways (Point to it) which are four feet or more above the adjacent floor or ground (Point to
42	A	ECU	F	Sketch # 42	--these shall be guarded by a standard railing (Trace it). However, runways for special purposes --
43	C	ECU	C	Sketch # 43	--purposes such as tank car loading racks, or runways for oiling of power train equipment, where a handr would make it difficult or impossible to do the job -

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Module No. BR-102 TITLE OSHA, Exxon and You SEGMENT 3A - "Safety at Exxon" - The Workplace

VTR SCRIPT - PAGE 8 OF 17a DATE 12/9/74 BY JWW/GJW

SCENE CAMERA SHOT → (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
44	A	ECU	F	Sketch # 44	-- these do <u>not</u> need handrails on both sides, provided the runway is at least 18" wide (Point to it).
45	C	ECU	C	Sketch # 45	For every flight of stairs having four or more risers (count them and point) a handrail must be provided. (Point to it)
46	B	MCU	F	Tim	Whether or not you need handrails on one, or both side of a stairway depends upon how <u>wide</u> the stairway is, and <u>where</u> it's installed. This is one of the things you may need to check with your supervisor.
47	B	ECU	Z	Tim	Just as you can be sure that the OSHA compliance officer would take a close look at <u>housekeeping</u> violations, you can be <u>equally</u> sure that he would look for violations in the area of handrails and other devices intended to keep people from falling and hurting themselves.
48	A	ECU	C	Chart # 48	Let's take a look now at the fourth item on our list of violations - <u>exit markings</u>. What are some of the guidelines for them?
49	B	ECU	C	Tim	Well, the general overall requirement is that they must be readily visible, and of a distinctive color, that is, of a color different from the background color. The requirement for <u>visibility</u> is only plain, common sense. It doesn't do any good to have exit markings if the guy who has to leave some day, in a hurry, can't see them.
50	C	ECU	C	Sketch # 50	Also, it doesn't do any good to have exit markings all over the place if the contrast between the words and the background is so slight that the words are not that easy to read. This is good (Point to it) - and this is bad (Point to it).

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Module No. BR-102 TITLE OSHA, Exxon and You
SEGMENT 3A - "Safety at Exxon" - The Workplace

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SCENE / CAMERA / SHOT / TECHNIQUE FOR SEGMENTING SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
51	A	ECU	C	Sketch # 51	And, just putting signs up in the right places, with the right color contrast is not enough. You've got to be sure that the signs are lighted, either internally (Point to it), or externally (Point to it)..
52	C	ECU	C	Sketch # 52	Where an exit is hidden from view, exit signs with direction arrows, like these, should be used. In other words, if a person can't see the exit itself, he should at least be able to see a sign which tells him which direction the exit is.
53	A	ECU	C	Sketch # 53	As you see here, doors to closets, or equipment rooms, or any other door which could be mistaken for an exit by a person not familiar with the building, should be labelled, either by saying what they are or what they're not.
54	C	ECU	C	Sketch # 54	Finally, it's important to be sure that the route to an exit is kept clear at all times. The best-located, best-designed, best-lighted exit marking in the world, isn't worth a plugged nickel if the only path leading to that exit is blocked with a lot of materials.
55	B	ECU	C	Tim	Our primary purpose in mentioning these standards for exit markings is to emphasize again that these are the types of things OSHA compliance officers are looking for. Just as they are easy for an inspector to spot, so are they easy for supervisors to check.
56	A	ECU	C	Chart # 56	Let's talk about the fifth item on our list of violations - fire extinguishers ---- Three kinds of requirements apply here.

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Module No. BR-102 TITLE OSHA, Exxon and You
SEGMENT 3A - "Safety at Exxon" The Workplace

VTR SCRIPT - PAGE 10 OF 17a DATE 12-9-74 BY JWW/CJW

SCENE / CAMERA / SHOT → TECHNIQUE FOR DESIGNATED SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (ECU = EXTREME CLOSE UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
57	C	ECU	C	Chart # 57	First, about inspections - OSHA requires a monthly inspection, as a minimum, to see that fire extinguishers are in their designated places. This monthly inspection should also check to be sure the extinguishers have not been used, and that they have no physical damage. In addition to the monthly check, OSHA requires a thorough examination of extinguishers at least annually.
58	B	ECU	C	Tim	At the time of the annual inspection, a durable tag must be attached, showing the date of servicing, and the name, or initials, of the individual handling the inspection.
59	A	ECU	C	Chart # 59	The second requirement has to do with the location and mounting of fire extinguishers - They should not be left on the ground. Rather, they should be mounted on brackets, or kept in cabinets or on a shelf.
60	C	ECU	F	Chart # 60	Finally, OSHA has a requirement about accessibility, and the requirement is that a fire extinguisher shoul be accessible and conspicuous. In other words, the extinguisher should be not only easy to find, but als easy to get down and use.
61	B	ECU	C	Tim	While the average supervisor may not be directly involved in deciding where and how fire extinguishers are located, mounted and inspected, he definitely gets involved if he allows one of his jobs to temporarily block access to a fire extinguisher installation, so this is something he has to be careful about.

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Module No. BR-102 TITLE OSHA, Exxon and You
SEGMENT 3A - "Safety at Exxon" The Workplace

VTR SCRIPT - PAGE 11 of 17a DATE 12/9/74 BY JWW/GJW

SCENE / CAMERA / SHOT — TECHNIQUE FOR DESIGNATING SHOT: C = CUT; Z = ZOOM; W = WIPE; F = FADE (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
62	A	ECU	C	Chart # 62	With what we've already said to you about these first five items on this list of violations, we think we've got across the point about the kinds of problems which can come up in the workplace category.
63	C	ECU	F	Chart # 63	These last three items - aisle markings, floor load limits and storing flammables - are not as important to the average supervisor as the first five are, but at least we'd like to comment briefly on them.
64	A	ECU	F	Chart # 64	First, (points to item) about the marking of permanent aisles. This standard applies where materials - handling equipment, like a fork-lift truck, is used.
65	B	ECU	C	Tim	The idea behind this standard is that in a warehouse, or other storage area, people who operate materials - handling equipment shouldn't have to guess where the aisle ends and the storage space begins.
66	C	ECU	C	Chart # 66	OSHA's standard about floor load limits having to be posted is aimed primarily at warehouse operations, but it applies in any case where there is a chance of overloading a floor, or deck, or platform.
67	B	ECU	C	Tim	The common sense behind the standard is that people who use heavy equipment on floors and platforms should have some reliable way to tell what the load limits are for those floors and platforms.

MCD 000010137

SAL 0C002C667

Module No. BR-102 SEGMENT 3A - "Safety at Exxon" - The Workplace

VTR SCRIPT - PAGE 12 of 12a DATE 12-9-74 BY JWW/GJW

SCENE | CAMERA | SHOT | TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
68	A	ECU	C	Chart # 68	And finally we come to the last category, which has t with the improper storage of flammables. These standards apply to industrial plants which store flammabl materials as an incidental part of their operations.
69	B	ECU	F	Tim	It would be very easy for an OSHA compliance officer spot a can of gasoline, or some other solvent or cleaning fluid in the wrong kind of container and stored in an unsafe way. It's just as easy for you t correct these deficiencies if you stay alert as you make your rounds during the day. If you follow the safety rules already in effect at your plants for storage of flammable materials, you'll help to avoid violations in this area.
70	B	MCU	Z	Tim	There are special standards which apply to refineries and chemical plants which produce flammable materials things like tank spacing, fire wall capacity, and venting requirements. However, these are standards in which the average supervisor doesn't get involved, so we won't talk about them here.
71	C	ECU	C	Chart # 71	That completes the discussion of the list of eight kinds of frequently-occurring violations - those you see listed here. They all apply to the "workplace" category.
72	B	ECU	C	Tim	We'd like now to mention a couple of other standards which are not on the list of frequent violations, but which are important enough to you, to justify our tal ing about them, and they, too, fit into the "workplac category.
73	A	ECU	C	Chart # 73	The first standard has to do with excavations and trenching. This applies primarily to the constructio industry, but it's been getting a lot of attention from OSHA lately. And, this is because of the number of serious accidents which have occurred as a result violations of the standard.

MCD 00001038

SAL 000020670

Module No. BR-102 TITLE OSHA, Exxon and You
SEGMENT 3A - "Safety at Exxon" The Workplace

VTR SCRIPT - PAGE 13 OF 17a DATE 12/9/74 BY JWW/GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR SEGUEING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (or DISSOLVE) → (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
74	C	ECU	E	Sketch # 74	The standard requires trenches or excavations 5 feet deep or more (Point to it) to be either <u>shored</u> as shown here (Point to it)
75	A	ECU	W	Sketch # 75	- or sloped as shown here (Point to it) - unless they're cut into solid rock or shale. The recommended angle for sloping varies with the soil conditions, and these slope angles are covered by a table in OSHA's construction standard.
76	C	ECU	W	Sketch # 76	The greatest slope - a 2 to 1 slope (Trace it) - is required for trenches or excavations in loose sand, as shown here, with the slope coming back 10 feet for 5' deep trench.
77	A	ECU	W	Sketch # 77	Average soil trenching requires a slope of only 1 to 1. (Trace it) or 5 feet back for a 5' trench as you see here. Other materials, depending upon their hardness and compactness, fall somewhere in between the loose sand and solid rock trenching requirements.
78	C	ECU	W	Sketch # 78	Trenches in solid rock do <u>not</u> require <u>any</u> sloping. (Pause 2 seconds)
79	B	ECU	C	Tim	Sometimes you're going to run into some unusual soil conditions, such as working next to a previously back-filled area, finding a lot of ground water, or excavations next to an existing foundation, etc. Those jobs will call for additional precautions. The best bet in cases like this, and in the design of any shoring systems for other than <u>routine</u> jobs, is to get engineering assistance.

MCD 000010139

SAI 000020669

Module No. BR-102 TITLE OSHA, Exxon and You SEGMENT 3A - "Safety at Exxon" - The Workplace

UTR SCRIPT - PAGE 14 of 17a DATE 12-9-74 BY JWW/GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (or DISSOLVE) (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
80	A	ECU	C	Sketch # 80	For trenching or excavating, the standard also requir that no material be placed closer than 2 feet from the edge, and this includes the material being remove from the trench or excavation (Trace the path)!
81	C	ECU	W	Sketch # 81	Also, when a trench is four feet or more deep (Point it), a ladder (Trace it) must be provided within 25 feet of where the employee is working.
82	B	MCU	C	Tim	We're making no attempt in this program to convert al of you into excavation and trenching experts. We simply want to impress upon you that it's an activity which both OSHA and Exxon are very much interested in handling safely. So, whenever you have a problem in this area, talk with your supervisor if you're not sure of how to handle it.
83	A	ECU	C	Chart # 83	Another important item we want to talk about is scaffolding. It's not on the list of frequent violat ions either, but it's definitely a part of the workplace category, and it's important enough to deserve your attention.
84	B	ECU	C	Tim	The basis for the scaffolding standard is simply that it's important to provide an employee with a good surface to work from. In the event the work can't be safely reached from the ground, or some other soli surface, then a sturdy ladder or good scaffold should be provided. Now, what makes up a good scaffold?
85	C	ECU	W	Sketch #	Well, it needs to start with a good footing (Point to it) - one which can carry the load without settling.
86	A	ECU	W	Sketch # 84	Unstable objects, such as loose brick (point to them) or concrete blocks (Point to them) should not be used

MCD 000010140 SAL 0C0C2C672

Module No. BR-102 SEGMENT 3A - "Safety at Exxon" - The Workplace

VTR SCRIPT - PAGE 15 of 17a DATE 12-9-74 BY JWW/GW

SCENE / CAMERA SHOT — TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) → (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
87	C	ECU	W	Sketch # 87	The materials used in construction of the scaffold (Trace) must be sound (Point to words).
88	A	ECU	W	Sketch # 88	The work platform shall be solidly decked (Trace it) without gaps or unevenness which could cause the worker to trip, or allow materials to fall through.
89	C	ECU	W	Sketch # 89	The decking boards should extend over the supports from 6 inches to 18 inches (Trace it.)
90	A	ECU	W	Sketch # 90	The uprights should be plumb (trace them) and securely braced (Trace braces) to prevent swaying or displacement.
91	C	ECU	W	Sketch # 91	For scaffolds having work platforms over ten feet high, guardrails (Trace it) and toe boards (trace it) are required.
92	A	ECU	C	Sketch # 92	The guardrail can be made of 2' x 4' lumber (Pause,) or of a piece of tube and coupler scaffold.
93	C	ECU	C	Chart # 93	The toe boards are specified as 4' minimum height - however, Exxon has been using 4' nominal size lumber. An example of how OSHA is still changing, is that they have under consideration changing the minimum height to a range of 2" to 6".
94	A	ECU	C	Sketch # 94	Another aspect of scaffold construction is that a ladder (Point to it) or similar safe access must be provided. Remember, if you use an ordinary straight ladder, you must be sure to secure it at the top.
95	B	ECU	C	Tim	Horse scaffolds are another fairly common type. However, they are limited by OSHA to heights of 10 feet. How far apart you place the horses depends ...

MCD 000010141

SAL 000020671

Module No. BR-102 SEGMENT 3A - "Safety at Exxon" - The Workplace

VTR SCRIPT - PAGE 16 OF 17a DATE 12-9-74 ~~10-9-74~~ BY JWW/GJW

SCENE | CAMERA | SHOT | TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
97	C	ECU	C	Sketch # 97	For medium duty - that is, loads which do not exceed 50 #/sq.ft., the horses should not be farther apart than 5 feet.
98	A	ECU	W	Sketch # 98	For light duty - that is, loads not exceeding 25 #/sq horses may be spaced not more than 8 feet apart.
99	B	ECU	Z	Tim	As in the case when you build any scaffold, you've go to inspect the material as the horse scaffold gets pu together to be sure it is OK. OSHA standards cover many other types of scaffolds. So, if you need to construct some unusual kind of scaffold, you should g the additional information you need through your supervisor.
100	B	ECU	Z	Chart 100	This "workplace" category concentrates on conditions which can cause people to fall or slip down. To put it another way, Exxon doesn't want employees getting themselves banged up from slips, trips and falls which chould have been prevented by good house-keeping, by the use of proper safety equipment, and b sensible precautions. This has been Exxon's attitude toward safety for many years.
101	C	ECU	C	Chart # 101	So much for violations and potential violations in the "workplace" category, the first of four categori in this segment about "Safety at Exxon."
102	B	MCU	C	Tim	By learning and following the safety standards in your plant and by insisting that your employees do th same, you can go a long way toward making your "work-place" a safe one in which to work. (Pause). It's time now for Exercise No. 3 in your workbook.

MCD 000010142

SAL 00002C674

Module No. BR-102 SEGMENT 3A - "Safety at Exxon" - The Workplace

VTR SCRIPT - PAGE 17 of 17a DATE 12-9-74 BY JWW/GJK

SCENE / CAMERA / SHOT / TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
103	A	ECU	C	Slide # 103 "Produced by" super	Music (5 Seconds)
104	C	ECU	C	Slide # 107 "Property of" Super.	Music (5 Seconds)
105	A	ECU	C	Chart # 105 GSD logo	Music (5 Seconds)
106	C	ECU		Chart # 106 End of video-cassette	Music (5 Seconds)

MCD 000010143

SAL 000020673

TITLE OSHA, Exxon and You

Module No. BR-102 SEGMENT No. 3B - "Safety at Exxon" ("Electrical")

VTR SCRIPT - PAGE 1 OF 21 DATE 12/6/74 BY JWW/GJW

SCENE | CAMERA | SHOT | TRANSITION (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
1	A	ECU	C	Chart # 1	Now that you've finished the workbook exercise on "safety in the workplace", let's talk about another area of safety at Exxon that affects every supervisor. It has to do with violations of the National Electrical Code.
2	A	ECU	C	Chart # 2	You see, the entire National Electrical Code, or NEC as it's sometimes called, was made a part of the OSHA safety and health standards. OSHA took this approach because NEC, for years, has been considered a good basis for designing and installing electrical facilitie
3	B	ECU	C	Sidney	The National Electrical Code was first published in 1897, and, of course, has been revised and updated many times since then. Naturally, any installations which were built in accordance with earlier editions of NEC, won't meet all of the present requirements. OSHA recognized this problem, so it made compliance with the entire 1971 code mandatory only for new electrical installations and significant modifications and repairs made after March 15, 1972.
4	B	MCU	Z	Sidney	There are some electrical requirements of NEC, however, that are so important that OSHA made them retroactive. They apply to all electrical facilities, regardless of when they were installed. These retroactive requirements are the ones that we need to talk about.

MCD 000010144 SAL 000020676

TITLE - OSHA, Exxon and You

Module No. BR-102 SEGMENT No. 3B - "Electrical"

VTR SCRIPT - PAGE 2 of 21 DATE 12/6/74 BY JJW GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (or DISSOLVE) (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
5	A	ECU	C	Chart #5	They can be grouped into these four categories -- electrical requirements for hazardous areas -- grounding of electrical equipment -- flexible cords and cables -- and some general items.
6	B	ECU	C	Sidney	. . We're not going to get involved with all the electrical requirements that would normally be handled by an electrical engineer, or by an electrical specialist, we'll cover just those things that a typical non-electrical supervisor might contact in his work, or might need to know for a better understanding of electrical equipment.
7	B	MCU	Z	Sidney	You're not going to end up as an electrical [illegible]rt as a result of hearing this discussion, but you will have a better understanding of the problems, and the part you need to play in solving them.
8	A	ECU	C	Chart #8	Let's look at the first item - electrical requirements for hazardous areas. The purpose of this section of NEC is to serve as a guide in the selection and installation of the electrical equipment for areas which, from a fire or explosion standpoint, have hazardous atmospheres. Here's what has to be considered when classifying an area.
9 After cover	A	ECU	W	Chart #9	First, the type of combustible that makes the atmosphere hazardous - that is, are there flammable gases or vapors around? Are there any combustible dusts, like the dust from coal or coke, or even from grains like wheat and oats -- or metal dusts, such as aluminum and magnesium? Finally, are there a combustible fiber particles, such as those found in textile mills?

MCD 00010145

SAL 000020675

Module No. BR-102 TITLE ~~OSHA, Exxon and You~~ SEGMENT No. 3B - "Electrical"

VTR SCRIPT - PAGE 3 OF 21 DATE 12-6-74 BY JWW/GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR OBTAINING SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE; (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
9a	A	ECU	W	Chart 9a	The National Electrical Code uses the term Class One to designate atmospheres with flammable gases or vapors (Pause)
9b	A	ECU	W	Chart 9b	Atmospheres with combustible dusts are termed Class Two (Pause)
9c	A	ECU	W	Chart 9c	Atmospheres with combustible fiber particles or flyings as they are sometimes called are termed Class Three atmospheres (Pause)
10	A	ECU	W	Chart #10	The second factor to be considered is the likelihood of flammable material being present in the right concentrations to burn. In some cases, it's a normal part of the operation, as in spray painting. In other cases, a flammable atmosphere may recur periodically, like when you open some piece of equipment on a process unit for servicing and this releases vapors in the area.
10a	A	ECU	W	Sketch #10a	These are conditions which are normally hazardous and NEC would classify the area as Division One (Pause)
10b	A	ECU	W	Sketch #10b	In other cases, where the areas would not be normally hazardous, NEC would classify it as Division Two. This would be a situation where a flammable mixture may be present only rarely, when there is an equipment failure, such as a mechanical seal failure on a pump, or a blown pipe gasket, or a line failure.

MCD 000010146

SAL 000020678

Module No. BR-102 TITLE OSHA, Exxon and You
SEGMENT No. 3B - "Safety at Exxon" ("Electrical")

VTR SCRIPT - PAGE 4 of 21 DATE 12-6-74 BY JWW/GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR SCENE CHANGE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
11	A	ECU	C	Chart # 11	A third factor which must be considered is what specifically is the hazardous material - butadiene? hydrogen? ethylene? benzene? propane? gasoline? or what?
11a	A	ECU	W	Chart 11-a	Based upon extensive testing, most of the flammabl gases and vapors you would encounter have been placed in Groups ranging from extremely flammable ones, in Group A, to less flammable ones, in Group D. (Pause. The groupings for combustible dusts run from Group E through G. There are no Group designations for combustible fibers, or "flyings", as they're sometimes called.
12a	A	ECU	W	Chart 12-a	As an example of a Class One gas or vapor classifi cation, hydrogen and Butadiene are in the Group B classification, while benzene, butane, and gasoline, just to cite a few, are in Group D.

MCD 000010147

SAL 000020677

Module No. BR-102 SEGMENT No. 3B - "Electrical"

VTR SCRIPT - PAGE 5 OF 21 DATE 11-25-74 BY JWW/GJW

SCENE - CAMERA SHOT --> TECHNIQUE FOR SUSTAINED SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)
(ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
12b	A	ECU	W	Chart 12-b	The different properties of the materials, such as flash point, ignition temperature and explosive force are some of the reasons for having the different groups.
12c	A	ECU	W	Sketch #12-c	For instance, hydrogen generates more explosive force than say propane. Therefore, an explosion-proof housing for hydrogen service needs to be stronger than one in propane service.
13	B	MCU	C	Sidney	These are the factors that are considered by the engineering department when they establish the electrical classifications for the various parts of a plant or a manufacturing unit.
14	B	ECU	Z	Sidney	A field supervisor usually won't have to determine the electrical classification to an area. However, he should at least be aware that different classifications exist, and that the classifications affect the type of electrical equipment which can be safely used.
15	B	MCU	Z	Sidney	Normally, process units or laboratories in a refinery or chemical plant will have atmospheres which do have hydrocarbon vapors, or which may have hydrocarbon vapors in the event of an equipment failure. So, in these areas, special electrical equipment is required.--
16	A	ECU	C	Chart #16	--- like explosion-proof housings, to house switches motor starters - and circuit breakers which would produce an arc when activated -- or like three phase motors which will not produce an arc, unless there's an insulation failure.

MCD 000010148

SAL 000020680

SCENE → CAMERA → SHOT → TECHNIQUE FOR SWITCHING SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (or DISSOLVE)
(ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
17	B	ECU	C	Sidney	When an area is located far enough away from a source of hydrocarbon so that any gases or vapors would be well below their lower explosive limit - that is, too "lean" to explode, if they should reach the area, then that area is termed "unclassified", or "general purpose".
18	A	ECU	C	Chart #18	For example, control houses, electrical substations, mechanical shops, office buildings, and the like, are normally located in areas which are unclassified or general purpose. These areas do not require the special electrical equipment of a hazardous area.
19	B	MCU	C	Sidney	Now, what you don't want to do is to take a piec of equipment or a tool that was bought for use in an unclassified area, and use it on a process unit, without first checking to see that it's safe from an electrical standpoint.
20	A	ECU	C	Chart #20	Portable fans, refrigerators, water coolers, hot plates, ovens, electric drills, saws and portable lights -- all of these are examples of electrical equipment which, if used improperly, could cause a problem with OSHA, but - what's even more important - they could cause a fire or an explosion.
21	FC A	ECU	W	Slide #21	Some other items which need to be carefully checked are battery-powered instruments, communications equipment, and battery powered tools like you see here. If these pieces of equipment are OK for hazardous areas, ---

MCD 000010149 SAL 000020679

Module No. BR-102 TITLE: OSHA, Exxon and You
SEGMENT: No. 3B - "Safety at Exxon" ("Electrical")

VTR SCRIPT - PAGE 7 OF 21 DATE 12-6-74 BY JWW/GJW

SCENE | CAMERA | SHOT — TECHNICAL AND OPTIONAL NOTES: C = CUT; Z = ZOOM; W = WIPE; F = FREEZE (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSEUP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT		VIDEO	AUDIO
22	FC	ECU	C	Slide # 22	--then they'll have a label, identifying the equipment as "intrinsically safe" for a specific type of atmosphere. The left item and the one in the middle in this picture have such labels. Even though the radio on the right appears to be identical to the one on the left, it does not have a label, so it would not be safe to use. The label will be from a nationally recognized testing laboratory --
22a	A	ECU	C	Chart # 22a	-- such as the familiar UL of Underwriter's Laboratory Inc., (Pause) --
22b	A	ECU	W	Chart # 22b	- or - Factory Mutual Engineering Corporation, whose emblem is a diamond around the letters F.M., as you see here at the bottom --
22c	A	ECU	W	Chart # 22c	-- or, the Bureau of Mines label, which includes the seal shown in the center of the facsimile of a label.

MCD 000010150
SAL 000020682

SCENE / CAMERA / SHOT → TECHNIQUE FOR SPECIFIC SHOTS: C = CUT; Z = ZOOM; W = WIDE; F = FREEZE FRAME (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
22d	A	ECU	W	Chart # 22-b	"Intrinsically safe" simply means that the equipme was designed so that it is not possible for it to generate a spark that's intense enough to ignite a flammable mixture of gases for which it was designed.
23a	A	ECU	W	Chart # 23-a	Surface temperatures of lighting fixtures, and of heating elements in stoves, hot plates, and ovens must also be considered, to be certain that they are low enough not to be a source of ignition. For example, replacing regular incadescent lights with mercury vapor lights, without checking, is a ver dangerous practice because the mercury vapor light wi normally have a higher surface temperature.
23b	B	ECU	C	Sidney	You're going to need help in this area, so if you have any questions about whether or not some electrical device is, or is not, suitable for the area, you should contact your supervisor.

MCD 000010151

SAL 000020681

Module No. BR-102 TITLE OSHA, Exxon and You SEGMENT No. 3B - "Electrical"

VTR SCRIPT - PAGE 9 OF 21 DATE 11/25/74 BY JWW/GJW

SCENE CAMERA SHOT TECHNIQUE FOR DESIGNATING SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
24	A	ECU	C	Sketch #24	Welding receptacles and 120-volt convenience outlets can also be a problem. On a typical process unit, or in a plant where there can be flammable vapors, you don't want a receptacle which will allow someone to pull the plug out while the electrical equipment is energized. This will cause an arc, which could ignite a flammable atmosphere.
25	A	ECU	C	Sketch #25	Some receptacles have a lever-type switch which must be moved to the "off" position as in the upper left example, before the plug can be inserted or removed. This arrangement prevents an accidental arc. As shown in the lower right example, turning the lever clockwise locks the plug in place and turns the power on.
26	FC	ECU	C	Slide #26	Another type of receptacle like the one shown here requires the plug to be inserted and then turned before contact is made. This holds the plug in place again to prevent an accidental electrical arc.
27	FC	ECU	C	Slide #27	Another thing to be alert for is an explosion-proof housing which has bolts missing from the cover, like the three you see missing here, --
27a	FC	ECU	C	Slide #27a	or has a housing with a threaded cover that's not screwed up tight, like the bottom cover you see here.
28	B	MCU	C	Sidney	Situations like this can make an explosion-proof housing totally ineffective. A missing bolt or two might not seem important, but it could make the difference between setting off an explosion or not.
29	FC	ECU	C	Slide #29	The conduit coming to an explosion-proof enclosure must contain a fitting like the one shown here to seal off the enclosure from the conduit, and from the atmosphere.

MCD 000010152

SAL 000020684

Module No. BR-102 SEGMENT No. 3B - "Electrical"

VTR SCRIPT - PAGE 10 OF 21 DATE _____ BY JWW/GJ

SCENE / CAMERA / SHOT / TECHNIQUE FOR DETERMINING SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
30	FC	ECU	C	Slide #30	After the wires are pulled into place, the fitti is filled through the plug shown here with a sealing compound which hardens and is strong enough to contai an explosion within the housing.
31	B	MCU	C	Sidney	Many people think an explosion-proof housing is tight enough to keep vapors out, but that's not so. Actually, the enclosure breathes as it heats up and cools down from changes in atmospheric conditions
32	A	ECU	C	Sketch #32	If the air/gas mixture inside the housing is <u>in</u> the explosive range, there can be an explosion <u>within</u> the enclosure. However, the burning gases are cooled as they pass between the machined surfaces the enclosure and its cover, so they are not <u>hot</u> enough to ignite the outside atmosphere.
33	B	ECU	W	Sketch #33	An enclosure with a threaded cover works in the same way - burning gases are cooled as they follow the path of the threads to the outside. (Pause)
34	B	ECU	C	Sidney	Now, you can see why it's so important to have all the bolts in place and tightened, and to have a threaded cover screwed on all the way, and also to have a properly sealed fitting.
35	FC	ECU	C	Slide #35	Exposed light bulbs can also be a problem in <u>hazardous areas</u>. They can be a source of ignition if a bulb is broken while it's on. A vapor globe and a metal guard, like these, are needed to protect the bulb from mechanical damage. You should be sure that these protective devices are always in place.

MCD 000010153

SAL 000020683

TITLE OSHA, Exxon and You

Module No. BR-102 SEGMENT No. 3B - "Electrical"

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SCENE / CAMERA / SHOT / → (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT		VIDEO	AUDIO
36	B	MCU	C	Sidney	In an unclassified area the vapor globe is not required, but mechanical protection is. (Pause) Let's see now if we can condense what we've talked about so far concerning electrical equipment for hazardous areas. What you need to think about is this.
37	A	ECU	C	Chart #37	Will this electrical equipment that you're concerned about - things like electrical switches, eve small ones like those controlling refrigerator lights, the brushes of a small motor, thermostats, electrical contracts, etc. - -
38	A	ECU	W	Chart #38	--- will any of these cause an arc hot enough to ignite a flammable atmosphere? Keep in mind that voltages even as low as nine volts can be a problem.
39	A	ECU	W	Chart #39	Are the surface temperatures of resistance heating elements, lights, or electronic tubes high enough to ignite a flammable atmosphere?
40	B	MCU	C	Sidney	If the answer to either of these questions is "yes", then the electrical equipment should be used only in an "unclassified" area, or it should be contained in an explosion-proof housing, or the housing should be purged with a clean inert gas, or it should be used only in accordance with hot work permit rules.
41	B	ECU	Z	Sidney	We believe you can see now why this section of th National Electric Code, dealing with hazardous areas, was made retroactive by OSHA. Using electricity properly is important enough, and using it improperly is dangerous enough, so that these electrical requirements deserve very careful attention, from both [illegible] and OSHA.

MCD 000010154

SAL 00002C68

Module No. BR-102 TITLE OSHA, Exxon and You

SEGMENT No. 3B - "Electrical"

VTR SCRIPT - PAGE 12 OF 21 DATE 11/25/74 BY JWW GJW

SCENE CAMERA SHOT — TECHNIQUE AS INDICATED (ECU = EXTREME CLOSE UP; MCU = MEDIUM CLOSE UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
42	A	ECU	C	Chart #42	The next item on the list involves electrical grounding. In very simple terms, electrical grounding is a planned electrical path for a current to flow through to the ground in case of an insulation failure.
43	A	ECU	W	Sketch #43	-- rather than having some person provide that path to the ground, on an unplanned basis. Like this poor fellow here has done.
44	A	ECU	W	Sketch #44	You know, you don't have to have high voltage to kill someone. Ordinary household voltage, only 120 volts, can do the job, under the right conditions, such as inside a tower, a drum, a furnace or in a damp location.
45	B	MCU	C	Sidney	Let's talk about some of the electrical equipment that you see and use almost every day that does require grounding. Some of the things are pretty obvious --
46	A	ECU	C	Chart #46	-- such as electric drills, electric saws, pipe-threading machines, motors, electrical switch racks, machine tools - just to mention a few.
47	B	ECU	C	Sidney	Of course, some of the portable tools in use today are "double insulated". This means that in addition to the normal insulation on the wiring, the rotor is insulated from the drive shaft in order to protect the user.
48	A	ECU	C	Sketch # 48	The label on the tool, like the label on this drill, will indicate whether or not it is double insulated. If it is, then grounding is not required, and the conventional 2-prong, ungrounded receptacle is satisfactory.

MCD 000010155 SAL 000020685

Module No. BR-102 TITLE OSHA, Exxon and You
SEGMENT No. 3B - "Electrical"

VTR SCRIPT - PAGE 13 OF 21 DATE 11/25/74 BY JWW GJW

SCENE | CAMERA | SHOT → (ECU = EXTREME CLOSEUP ; MCU = MEDIUM CLOSE-UP ; DS = DISTANCE SHOT)

TECHNIQUE FOR [illegible]: C = CUT; Z = ZOOM; W = WIPE; F = FADE; [illegible]

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
49	A	ECU	C	Chart #49	-- are water fountains, warming ovens, welding rod heating boxes, office and material trailers, portable buildings, steel structures, and all transformers.
50	B	MCU	C	Sidney	Then you have the usual office machines, such as electric typewriters, calculators, adding machines, and the like. These should all be grounded wherever the operator - at the same time that he or she is touching the piece of equipment in question -- could also touch something else that <u>is</u> grounded, like a water pipe, a steam heater, a grounded metal wall panel, or even another piece of electrical equipment which is grounded.
51	B	ECU	Z	Sidney	Carpeted floors and vinyl or asphalt tile floors are <u>not</u> normally considered a path to ground. On the other hand, bare concrete floors <u>would</u> be considered a possible ground source.
52	A	ECU	C	Sketch # 52	In some areas, such as coffee rooms, bathrooms, equipment rooms, and the like, <u>all</u> of the convenience receptacles should be of the grounded type because of the high probability of a person being a part of the electrical path to ground in the event of a defect in the wiring system or in the appliance.
53	A	ECU	W	Sketch #53	And remember - The fact that you have a three-prong receptacle doesn't necessarily mean that you have a <u>good</u> ground. As a part of your routine safety inspections you should spot check the grounded receptacles to see if you still <u>actually</u> <u>have</u> a good ground circuit.

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MCD 000010156

Module No. BR-102 TITLE OSHA, Exxon and You
SEGMENT No. 3B - "Electrical"

VTR Script - Page 14 of 21 DATE 11/25/74 BY JWW Gjw

SCENE / CAMERA / SHOT → (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSEUP; DS = DISTANCE SHOT)

TECHNIQUE FOR TRANSITIONING SCENES: C = CUT; Z = ZOOM; W = WIPE; F = FADE

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
54	FC	ECU	C	Slide # 54	A tester, like this Daniel Woodhead 1750 Ground Tester, is a good device to use -- it provides a quic safe way to check a receptacle --
54a	FC	ECU	C	Slide # 54a	--When the yellow and white indicator lights are both on, as you see here.
55	B	ECU	C	Sidney	If you do find an improperly grounded receptacle, then more extensive checking should be done to determine the extent of the problem.
56	A	ECU	C	Chart #56	Let's move to "flexible cords and cables", the next item on the list of National Electrical Code requirements which were made retroactive by OSHA. Remember what we talk about from here on are gene items for any area - hazardous or unclassified. Some of the things we talk about should not be used in a hazardous area. In other words, the rules for hazardous areas override the more general rules.
57	B	ECU	C	Sidney	We don't believe we could sum up the permitted use of flexible cords any better than it's spelled out in the National Electrical Code. Here's what it says.
57a	A	ECU	C	Chart #57-a	Flexible cord may be used only for -- one, pendants - that is, hanging type lights, fixtures or controls.
57b	A	ECU	W	Chart #57-b	Two, wiring of fixtures --- (Pause)
57c	A	ECU	W	Chart #57-c	Three, connection of portable lamps or appliances (Pause)
57d	A	ECU	W	Chart #57-d	Four, elevator cables -- (Pause)
57e	A	ECU	W	Chart #57-e	Five, wiring of cranes and hoists -- (Pause)

MCD 000010157

SAL 000020687

Module No. ____ TITLE OSHA, Exxon and You
SEGMENT No. 3B - "Electrical"

VTR SCRIPT - PAGE 15 OF 21 DATE 11/25/74 BY JWW?GJW

SCENE / CAMERA / SHOT → TECHNIQUE FOR DESIGNATING SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) → (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT		VIDEO	AUDIO
57f	A	ECU	W	Chart #57-f	Six, connection to stationary equipment to facilitate its frequent interchange --
57g	A	ECU	W	Chart #57-g	Seven, prevention of the transmission of noise or vibration --
57h	A	ECU	W	Chart #57-h	-- and Eight, facilitating the removal or disconnection of fixed or stationary appliances for maintenance or repair.
58a	B	ECU	C	Sidney	Finally, NEC goes on to say that if a plug is needed to connect the flexible cord to a power source, the plug has to be energized from an approved receptacle outlet. NEC also spells out where you cannot use flexible cords, - so let's look at what it says about that -
58b	A	ECU	C	Chart #58-b	Flexible cords or cable shall not be used - One, as a substitute for the fixed wiring of a structure, ---
58c	A	ECU	W	Chart #58-c	Two, where it has to run through holes in walls, ceilings or floors ---
58d	A	ECU	W	Chart #58-d	Three, where it's run through doorways, windows, or similar openings ---
58e	A	ECU	W	Chart #58-e	Four, where it's attached to building surfaces ---
58f	A	ECU	W	Chart #58-f	and Five, where it's concealed behind the walls, the ceilings, or the floors of buildings.

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SCENE | CAMERA | SHOT | TECHNIQUE (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
59	FC	ECU	C	Slide #59	Another requirement concerning flexible power cords is that they contain no splices, unless the splices are made, and the insulation is molded or vulcanized, in such a way that the splice develops the full strength of the cord. This shows a factory-made splice for a light socket.
60	FC	ECU	C	Slide #60	This requirement rules out the use of on-the-spot field-made splices, - the kinds that are made with plastic tape insulation.
61	B	MCU	C	Sidney	Also, the fittings used for flexible cord and the construction technique used in installing flexible cord must be such that tension on the cord will no be transmitted to the terminal screws.
62	A	ECU	C	Sketch #62	This can be accomplished by tying a knot in the cord and letting the knot take the tension or by wrapping the cord with tape and letting the lump of tape take the tension. Or by using special fittings to accomplish the same thing.
63	B	ECU	C	Sidney	That pretty well wraps up the Code requirements for flexible electrical cords and cables, except for a table which specifies the amperage capacity for different wire sizes, and different types of insulatic
64	A	ECU	C	Chart #64	The last group of NEC regulations which OSHA has made retroactive includes a couple of general items.
65	B	ECU	C	Sidney	Some we won't even discuss -like manufacturing requirements for appliances such as ovens, electric heaters, irons, etc. -- because they don't apply t our business.

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Module No. ____ TITLE OSHA, Exxon and You

SEGMENT No. 3B - "Electrical"

VTR SCRIPT - PAGE 17 OF 21 DATE 11/25/74 BY JWW/GJW

SCENE	CAMERA	SHOT	TECHNIQUE FOR DESIGNATING SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSEUP; DS = DISTANCE SHOT)	VIDEO	AUDIO
66	B	MCU	Z	Sidney	The rest of the items in the General category we do need to at least touch on, so here's the first one ---
67	A	ECU	C	Chart #67	Dissimilar materials - You shouldn't intermix - that is, tie or connect together - wiring and fittings made of different kinds of material - like aluminum and copper (wait), copper and copper-clad aluminum (wait) or aluminum and copper-clad aluminum.
68	B	MCU	C	Sidney	It's difficult, if not impossible, to get a lasting good electrical contact between these dissimilar materials. Due to the resistance that's built up at the junction, enough heat can be generated to actually start a fire.
69	A	ECU	C	Chart #69	Another general idea is that splices shall be mechanically and electrically secure (pause).
70	A	ECU	W	Chart #70	To sum up, the splice has to be as strong as the rest of the cable, and proper insulation of the splice is a must! Also, you've got to have good contact between the parts through which the electricity is supposed to pass.
71	B	ECU	C	Sidney	Another general requirement covers energized parts which are 50 volts or more. These shall be guarded to prevent someone from accidentally contacting them. This can be accomplished in several ways --
72	A	ECU	C	Sketch #72	You can locate the live parts in a room, in a vault, or on a balcony, with access limited to only qualified people. Or you can install suitable permanent partitions to isolate the energized parts.

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SCENE | CAMERA | SHOT | TECHNIQUE FOR SUBSEQUENT SCENES: C = CUT; Z = ZOOM; W = WIPE; F = FADE (ECU = EXTREME CLOSE-UP; VCU = VERY CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
74	A	ECU	W	Sketch #74	You can elevate them at least 8 feet above the floor or working surface. (Pause)
75	A	ECU	W	Sketch #75	If the energized parts are so located that they could be damaged by trucks or other mobile equipment, then you need to build guards around them which are strong enough to prevent damage.
76	A	ECU	W	Sketch #76	In any event, you must identify the areas where energized parts are located with warning signs to prohibit unqualified persons from entering.
77	B	ECU	C	Sidney	Another general requirement of the National Electrical Code is that any electrical devices which will arc shall be isolated from all combustible materials. You'll recall, that as we discussed earlier, hazardous areas require special consideration
78	A	ECU	C	Sketch #78	An electrical requirement which is one of the favorites with OSHA compliance officers is the one calling for identification of all switches and other so-called "disconnects" - that is, ways to cut off electrical power.
79	B	ECU	C	Sidney	The National Electrical Code requires that each switch, circuit breaker, or other disconnect for a motor, an appliance, an electrical service, or an electrical feeder or branch, shall be legibly marked at its point of origin to indicate its purpose, unless, of course, the purpose of it is obvious.

MCD 000010161

SAL 000020691

Module No. ____ TITLE OSHA, Exxon and You
SEGMENT No. 3B - "Electrical"

VTR SCRIPT - PAGE 19 OF 21 DATE 11/25/74 BY JWW/GJW

SCENE ↓ CAMERA ↓ SHOT ↓ → (ECU = EXTREME CLOSEUP ; MCU = MEDIUM CLOSE-UP ; DS = DISTANCE SHOT)
TECHNIQUE FOR SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
80	B	MCU	Z	Sidney	NEC also requires that overcurrent protective devices shall be located where they will be readily accessible, but not exposed to physical damage -- and not in the vicinity of ignitible materials.
81	A	ECU	W	Chart #81	Finally, NEC requires that arcing parts, or suddenly-moving parts, including handles on switches, must be shielded so they won't injure or burn a person when they do operate.
82	B	MCU	C	Sidney	Well, those are the electrical requirements that OSHA has made retroactive -- that is, the retroactive ones which apply to our business.
83	B	ECU	Z	Sidney	There are a couple of other things in the electrical area that are important, even though they're not included in that part of the National Electrical Code which OSHA made retroactive.
84	FC	ECU	C	Slide #84	One is the tag-out or lock-out procedure. It is extremely important to follow the tag-out or lock-out procedure to the letter, because tremendous amounts of electrical energy can be released accidentally if it is not properly handled.
85	B	ECU	C	Sidney	Be sure that you know what the correct procedure is for your plant, and that you follow every single step as written because human lives are at stake.

MCD 000010162

SAL 000020694

Module No. BR-102 TITLE OSHA, Exxon and You
SEGMENT No. 3B - "Safety at Exxon" ("Electrical")

VTR SCRIPT - PAGE 20 OF 21 DATE 12-6-74 BY JWW/GJW

SCENE / CAMERA / SHOT → TECHNIQUE FOR SHOT SIZING: C = CUT; Z = ZOOM; W = WIPE; F = FADE (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSEUP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT		VIDEO	AUDIO
85a	B	MCU	Z	Sidney	Another very important safety rule involves working around exposed power lines or electrical equipment. Every year, there are cases of people in industry getting electrocuted by tangling with power lines.
85b	A	ECU	C	Sketch #	By all means, keep metal ladders away from electrical lines and electrical equipment. (Pause.)
85c	A	ECU	W	Sketch #	Also, any part of a crane or its load should be kept a minimum of 10 feet away from any energized power lines. If the line voltage is more than 50,000 volts, even greater clearances are requi: Every supervisor should make it his business to learn where an accident like this could happen in his plant. Then, he should be certain that all employees working in the area, especially those operating or working around cranes and similar equipment, are told about the high voltage hazard.
85d	B	MCU	C	Sidney	One final electrical requirement is so obvious that I almost hesitate to say it - but here goes - only qualified employees should do skilled electrical work. This is a simple, but important rule.

MCD 000010163

SAL 000020693

TITLE OSHA, Exxon and You

Module No. BR-102 SEGMENT No. 3B - "Safety at Exxon" ("Electrical")

VTR SCRIPT - PAGE 21 OF 21 DATE 12-6-74 BY JWW/GJW

SCENE / CAMERA / SHOT — TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) → (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSEUP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
85E	A	ECU	C	Chart # 85b	People who work with electrical equipment should always keep in mind that when you're electrocuted, it makes no difference whether it was caused by faulty grounding, bad electrical cords, unsafe lighting or contact with some "hot" equipment. The end result is the same - you're dead!
86	B	ECU	Z	Sidney	If there's anything else in the electrical area that you need to know - for instance, some special requirement for <u>your</u> plant which wasn't covered in this program - then your instructor will tell you about it at the end of this segment. (Pause.) It's time now for Exercise No. 4 in your workbook.
87	A	ECU	F	Produced by Training and Development Dept. Baton Rouge Refinery, Exxon Company, U.S.A.	(Music - 5 Seconds)
88	A	ECU	F	Property of - Exxon Company, U.S.A. <u>Not to be Copied</u>	(Music - 5 Seconds)
91	A	ECU	W	(GSD Logo)	(Music - 5 Seconds)

END OF TAPE

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SAL 000020696

Module No. BR-102 SEGMENT No. 3C - "Safety at Exxon (Machine-Guarding and other")

VTR SCRIPT - PAGE 1 OF 14 DATE 11/25/74 BY JWW GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR GOING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (or DISSOLVE)
(ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
0	C	ECU	C	Exxon Logo	(Music - 5 seconds)
1	A	ECU	C	"presents" (super)	(Music - 3 seconds)
2	C	ECU	C	"Module BR-102 OSHA, Exxon and You" (super)	(Music - seconds)
3	A	ECU	C	Segment No. 3 "Safety at Exxon" Part C - "Machine Guarding" and "Other" Violations (super)	(Music - 5 seconds)

MCD 000010165

SAL 000020725

Module No. BR-102 SEGMENT 3A - "Safety at Exxon" - (Machine Guarding and other")

VTR SCRIPT - PAGE 2 OF 14 DATE 11-25-74 BY JWW/GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
4	C	ECU	C	Chart #4	A third category of OSHA Standards which is frequently violated covers the area of Machine Guarding. More violations are found in this area than in either the Workplace or Electrical categories. Perhaps even more important is the fact that a significantly higher percentage of the violations found in the Machine Guarding category are likely to cause serious - permanent injury to an employee. For this reason OSHA classes these violations as serious and imposes higher penalties for them.
5	B	MCU	C	Tim	We realize that many of you supervisors have essentially no contact with the shop type machinery covered in this section of OSHA. However most of you do have contact with portable tools and many of the machine guarding principles for fixed, shop-type equipment apply to any power tool - portable or fixed. Further OSHA does have safety standards covering portable power tools so you're sure to pick up some information which will apply to your job.
6	B	ECU	Z	Tim	OSHA's machine-guarding standards range from very general to quite specific. Specific standards outline exact requirements, such as the thickness of the metal used for abrasive wheel guards, specific clearances for barrier guards for power presses, specific design requirements for power transmission guards, just to give a few examples. The General standards, however, are statements of the types of hazards to be guarded against --

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SAL 00002C726

Module No. BR-102 SEGMENT 3A - "Safety at Exxon" - (Machine Guarding and other")

VTR SCRIPT - PAGE ___ OF ___ DATE 11/25/74 BY JWW/GJW

TECHNIQUE FOR SWITCHING SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)

SCENE | CAMERA | SHOT → (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT		VIDEO	AUDIO
7	A	ECU	C	Chart #7	-- such as those created by "point of operation," "in-going nip points," rotating parts, flying chips, and sparks. Flying chips, and sparks and rotating parts, you're already familiar with. But, here's what the other two terms mean.
8	B	MCU	C	Tim	"Point of operation" means the precise point at which the cutting, the shaping, or the forming operation, is being performed.
9	C	ECU	C	Sketch #9	For instance, at this point (Wait) where the blade of a shear (Wait) contacts the metal plate being cut (Wait)
0	A	ECU	W	Sketch #10	----- or where the lathe tool contacts the workpiece at this point (Wait) --
11	C	ECU	W	Sketch #11	-- or where the table saw blade contacts the word (Wait).
12	B	ECU	C	Tim	Now, in-going "nip points" are those points where some part moves toward a stationary object or where machine parts rotate toward each other, --
13	A	ECU	W	Sketch #13	-- as in the case of two rollers (Wait) or two gears (Wait).
14	C	ECU	W	Sketch #14	-- or where a chain goes around a sprocket (Wait)--
15	A	ECU	W	Sketch #15	-- or where a belt goes around a pulley arrangement (Wait)
16	C	ECU	W	Sketch #16	-- or where a conveyor terminates, or disappears beneath a floor (Wait).
17	B	MCU	C	Tim	The dangers involved in these so-called "nip points" and "points of operation" are obvious, but the personal consequences of getting caught in one are so disastrous that the dangers are worth repeating, for the sake of emphasis.

SAL 000020727

MCD 000101167

Module No. BR-102 SEGMENT 3C - "Safety at Exxon (Machine-Guarding and other")

JTK SCRIPT - PAGE ___ OF ___ DATE 11/25/74 BY JWW/GJW

ENG CAMERA ↓ SHOT ↓ → TECHNIQUE FOR DESIGNATING SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE); (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

			VIDEO	AUDIO
A	ECU	C	Sketch #18	Employees have lost fingers in "nip points" (Pause 3 seconds.)
C	ECU	W	Sketch #19	-- they've lost a hand -- and even worse (Pause 3 seconds).
B	ECU	C	Tim	Well, those are some of the basic machine hazards that need to be guarded against. Let's look now at some of the types of guards which can be used to provide the protection which employees need. Keep in mind that there is often more than one type of guard that can be used.
B	MCU	Z	Tim	A good principle to remember is that you should always use the simplest guard possible that will do the job. There are four classes, or categories, of guards -- enclosure guards, interlocking guards automatic guards, and special protective devices. Here are some examples of each class.
A	ECU	C	Chart #22	Enclosure guards are the simplest and most reliable types of guards. One of the most basic kinds is the fixed exclosure guard.
C	ECU	C	Sketch #23	It can be made of sheet metal, or as you see here, of expanded metal, and is used for power transmission systems such as belt, gear or chain drives. The guard encloses the "in-going nip point," or rotating motion, which could cause injury.
A	ECU	C	Sketch #24	This fixed type of guard can also be used to guard "points of operation." The guard on a table saw, like the one you see here, is a good example of a fixed enclosure guard for a "point of operation" hazard.

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SAL 000020728

Module No. BR-102 SEGMENT 3C - "Safety at Exxon (Machine-Guarding and other")

VTR SCRIPT - PAGE ___ OF ___ DATE 11/25/74 BY JWW/GJW

SCENE / CAMERA / SHOT — TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) → (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSEUP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
25	B	MCU	C	Tim	Enclosure guards should always be the first type considered where cutting, bending, punching or shearing action takes place. However, they're difficult to apply in maintenance-type operations like you're faced with, where the material being processed is not all that well standardized as to size and shape. Nevertheless, wherever you <u>can</u> use an enclosure guard, you <u>should</u> use one.
26	C	ECU	C	Chart #26	Where an enclosure guard is not <u>practical</u>, for one reason or another, then the <u>next</u> category should be considered - that's the interlocking guard, or interlocking barrier.
27	B	ECU	C	Tim	An interlocking guard is moveable, but it's <u>interlock-ed</u>, either mechanically or electrically, in such a way that whenever the guard is not in place then the machine cannot be activated.
28	B	MCU	Z	Tim	An example of this type of device, which is familiar to just about <u>everybody</u> is the household washing machine, or dish washer. The devices are so hooked up that, at critical points in the operating cycle, the machines won't operate if the door is opened.
29	A	ECU	C	Cahrt #29	A properly designed interlocking guard should do two things: One - it should prevent the starting of the machine when the guard is open, by shutting off, or disengaging the power. <u>Two</u> - it should keep the guard closed until the part causing the danger is at rest, or at least it should stop the machine as soon as somebody <u>opens</u> the guard.

MCD 000010169

SAL 000020729

Module No. BR-102 SEGMENT 3C - "Safety at Exxon (Machine-Guarding and other")

ITR SCRIPT - PAGE ___ OF ___ DATE 11/25/74 BY JWW/GJW

LINE CAMERA SHOT TECHNIQUE FOR GOING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE); (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSEUP; DS = DISTANCE SHOT)

			VIDEO	AUDIO
B	MCU	C	Tim	Another kind of interlock device is the interlock barrier. It uses a bar, or a rod, or a wire, or some similar device which extends across the danger zone and will shut off the machine when it is contacted.
B	ECU	Z	Tim	In addition to mechanical devices like these, some fairly sophisticated systems of barrier guards have been developed using electric eyes, and other electronic sensing devices to detect abnormal, potentially unsafe conditions, and to shut machines down.
C	ECU	C	Chart #32	The third class of guard is the automatic guard. This type of guard physically removes the hands, the arms or the body of the operator from the danger zone, as the tool closes on the material that's being worked on.
B	DS	C	Tim	It accomplishes this in one of two ways. One way is to sweep (Tim gestures) or push (Tim gestures) the operator out of the way as the tool descends.
B	MCU	Z	Tim	Another way is to pull (Tim gestures) the operator back out of the way of the danger zone with straps or light cables, physically attached to his arm (Tim gestures) or hands (Tim gestures). Either system will work, but the system which ties the operator to his machine will pull-away cables is better adapted to a manufacturing operation than it is to our maintenance operations. The sweeping or pushing device has the advantage of not restricting the employee from easily moving around the workplace.

MCD 000010170

SAL 000020730

Module No. BR-102 SEGMENT 3C "Safety at Exxon (Machine-Guarding and other")

UTR SCRIPT - PAGE ___ OF ___ DATE 11/25/74 BY JWW/GJW

SCENE / CAMERA / SHOT → TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)
(ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
35	A	ECU	C	Chart #35	The fourth and last category of machine guards, called "special devices," includes arrangements which are not really guards, but they still prevent an employee from getting hurt.
36	C	ECU	C	Sketch #36	A two-hand safety control falls into this category. This is an arrangement which, as shown here, requires the operator to use both hands (Wait) to depress or activate the switch on his machine. The handles and electrical circuits are so designed that the operator must maintain contact long enough with both hands so that it's impossible for him to get his hands into the danger zone while the machine is in motion.
37	A	ECU	C	Chart #37	A really important point to keep in mind is that there simply is no machine guard that is foolproof. The supervisor has a two-fold responsibility in this area. First, he must be sure that all machines being used by his employees are properly guarded. Second, he must be sure that the employees are using the machine guards which have been provided. This is not always as easy as it sounds.
38	B	MCU	C	Tim	The best approach is to convince the employee that the guard was installed for his benefit. If this kind of persuasion is not effective, then discipline may be necessary, because compliance with OSHA law is a responsiblity of the employer. We know that these brief comments about the things you need to protect against in machine-guarding, and the examples we've shown to you, just scratch the surface of a much more complex set of problems.

MCD 000010171

SAL 000020731

Module No. BR-102 SEGMENT 3C - "Safety at Exxon" - Machine Guarding and other")

JTA SCRIPT - PAGE ___ OF ___ DATE 11/25/74 BY JWW/GJW

TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)

CAMERA	SHOT	→	VIDEO	AUDIO
			(ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)	
B	ECU	Z	Tim	So, if you have some specific machine-guarding problem that we haven't covered in this program, you should check with your supervisor. He can help you get additional information which you may need to solve the problem.
B	MCU	Z	Tim & Booklet	In addition, the Department of Labor, of which OSHA is a part, has published this booklet, which could be very helpful to you. It's called, "The Principles and Techniques of Mechanical Guarding." Every supervisor can get a copy, or get the use of one, through the safety organization in his plant.
	MCU	C	Tim	And, don't overlook the people who sell the machinery that you use in your operations. They can also be very helpful in supplying literature about safety features for their machines.
C	ECU	C	Chart #42 (Use #7)	Now, we've talked about what machine operations need to be protected against -- that is, the standards that OSHA has set for machine-guarding -- hazards created by point of operation, in-going nip points, rotating parts, and flying chips and sparks.
A	ECU	C	Chart #43	We've also talked about the four categories of guards that OSHA recognizes as effective - that is, enclosure guards, interlocking guards, automatic guards, and special devices. Let me point out to you now, some of the violations that OSHA inspectors are finding most frequently in this area of machine-guarding.

MCD 000010172

SAL 0C0C20732

Module No. BR-102 SEGMENT 3C - "Safety at Exxon" (Machine Guarding and other")

VTR SCRIPT - PAGE ___ OF ___ DATE 11/25/74 BY JWW/GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR GOING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
44	B	ECU	C	Tim	Well, two items are the lack of guards, or the use of improper guards, on power transmission devices such as "V" Belt, chain and gear drives. Other things which have received a lot of attention are guards for pulleys and sprockets.
45	C	ECU	C	Chart #45	The inspectors also look for unguarded "nip" points and points of operation -- anything, in fact, that could lead to the accidental injury of a person running a machine ---
46	A	ECU	C	Sketch #46	-- like, for example, no guards, or improper guards, or a fan installed within seven feet of the floor (Pause 2 seconds) ---
47	C	ECU	C	Sketch #47	-- like abrasive wheels not equipped with adjustable work rests or with the work rest having more than the maximum clearance of 1/8" between it and the abrasive wheel (Pause 2 seconds) ---
48	A	ECU	C	Sketch #48	-- or the lack of an adequate metal guard on the abrasive wheel itself, that is, one which does not cover enough of the wheel, or is not sturdy enough. (Pause 2 seconds).
49	B	MCU	C	Tim	This is an OSHA program, and we're concentrating on the safety matters that OSHA is paying a lot of attention to. But, none of us should ever forget the really important thing ----- that Exxon wants its Employees to be safety conscious.
50	C	ECU	C	Sketch #50	Unguarded or improperly guarded machinery can amputate, it can main, and it can otherwise mulilate the employee. (Pause). It can even kill!

MCD 000010173

SAL 000020733

Module No. BR-102 SEGMENT 3C "Safety at Exxon (Machine-Guarding and other")

VTR SCRIPT - PAGE ___ OF ___ DATE 11/25/74 BY JWW/GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR SWITCHING TO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE). (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
1	B	MCU	C	Tim	None of us want accidents like this to happen. So, each supervisor should review his area not only to see if he <u>is</u> in compliance with OSHA, but <u>also</u> keeping in mind that it's injury to people that we're all trying to prevent - OSHA, Exxon and everyone who works for both organizations.
2	A	ECU	C	Chart #52 (#4)	So much for the third category, -- Machines Guarding. Let's talk now about the <u>last</u> category, which - for lack of a better label, we've called "<u>other</u>." This category includes the only two items remaining in the listing of frequent OSHA violation.

MCD 000010174

Module No. BR-102 SEGMENT 3C - "Safety at Exxon" - (Machine Guarding and other")

VTR SCRIPT - PAGE ___ OF ___ DATE 11/25/74 BY JWW/GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
54	C	ECU	C	Chart #54	They involve the handling of compressed gas cylinders and the use of compressed air for cleaning purposes. Let's look first at what the requirements are with respect to compressed gas cylinders.
55	B	ECU	C	Tim	They're a common item found throughout most plants, and if they're <u>not</u> treated properly they have the potential of doing real harm to both people and equipment. For example, there was an actual case where a cylinder was knocked over and here's what happened --
56	C	ECU	C	Sketch #56	It's value broke and it acted like a missile, even breaking through a brick wall before it came to rest. Fortunately, no one was injured. Not all cases have had such a happy ending. There have been many cases reported of injuries and even death due to improper handling of cylinders.
57	B	MCU	C	Tim	Because accidents like this can happen, there are a number of rules concerning the handling of cylinders which should be followed --
58	A	ECU	C	Sketch #58	- Gas cylinders must be transported in a vertical position, firmly secured with the protective caps in place.
59	C	ECU	C	Sketch #59	- Gas cylinders must also be stored in a vertical position, again firmly secured, with protective caps in place.

MCD 000010175

SAL 000020738

Module No. BR-102 SEGMENT 3C - "Safety at Exxon" - (Machine Guarding and other")

V.I.R SCRIPT - PAGE ___ OF ___ DATE 11/25/74 BY JWW/GJW

TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)
(ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT		VIDEO	AUDIO
60	A	ECU	C	Sketch #60	- Oxygen cylinders must be stored at least 20 feet (Point) from cylinders containing combustible gases. (Pause 2 seconds.)
60A	C	ECU	C	Sektch #60A	or they can be separated by a wall at least 5 feet high (point) with a fire resistance rating of at least 1/2 hour (Pause 2 seconds)
61	A	ECU	C	Sketch #61	-Cylinders should be clearly marked with the name of the gas. (pause 2 seconds)
62	B	ECU	C	Tim	-Empty cylinders should be handled in the same manner as full ones. By following this rule, you can never make the mistake of assuming that a cylinder is empty when it is actually full, or partially full. Handle all cylinders carefully. Don't drop them and don't handle them with a magnet or sling.
63	C	ECU	C	Sketch #63	Use a cradle or similar type of handling device as shown in this sketch which secures the cylinders at both the top (wait) and at the bottom. (Pause 3 sec.)
64	A	ECU	C	Sketch #64	Don't position cylinders where they would be a part of the arc welding circuit (Pause 2 sec.) And keep cylinders away from excessive heat.
65	B	MCU	C	Tim	Even though a cylinder is a simple device, it has the potential of seriously injuring someone if it is not properly handled. Therefore, you should be certain that the rules are understood and followed.
66	A	ECU	C	Sketch #66	Now, what about the use of compressed air for cleaning purposes - what are the requirements for that operation.
67	C	ECU	C	Sketch #67	Compressed air used for cleaning purposes must be less than 30 pounds per square inch at the nozzle. Also required is the use of an effective "chip-guarding" technique.

MCD 000010176
SAL 000020739

Module No. BR-102 SEGMENT 3C - "Safety at Exxon" - (Machine Guarding and other")

VTR SCRIPT - PAGE ___ of ___ DATE 11/25/74 BY JWW/GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR SEGMENTS INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
68	B	ECU	C	Tim	This requirement has been relatively simple to meet, because there are a number of nozzles on the market which reduce the normal 90 to 125 pounds of line pressure to 30 pounds pressure - at the nozzle. (Wait)
69	A	ECU	C	Sketch #69	One manufacturer uses the air, like this (wait) to form an air cone which serves as the chip guard.
70	B	MCU	C	Tim	One problem which can be encountered is the worker who is not satisfied with the cleaning job done at 30 pounds pressure.
71	C	ECU	C	Sketch #71	So he switches back to his old nozzle, or he tampers with the new one in an attempt to increase the air pressure. You must be alert to correct a situation like this, (Pause 2 seconds) and explain the dangers of using high pressure air for cleaning.
72	A	ECU	C	Chart	Well, that completes the discussion of the most common violations in all of the four categories you see here. The workplace, electrical, machine-guarding and "other".
73	B	ECU	C	Tim	These account for just a small portion of the total OSHA picture. Most of these OSHA requirements, plus many more we don't have time to talk about in this program, have been worked into engineering standards, safety regulations and unit audit lists. As significant changes are made in the future they'll be communicated to you through your supervisor or your safety department.

MCD 000010177

SAL 000020740

Module No. BR-102 SEGMENT 3C - "Safety at Exxon" - (Machine Guarding and other")

VTR SCRIPT - PAGE ___ OF ___ DATE 11/25/74 BY JWW/GJW

SCENE - CAMERA - SHOT → TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE OR DISSOLVE (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
74	B	MCU	Z	Tim	As a supervisor, you are a key man in making OSHA work. Many of the OSHA regulations require the employee to do certain things for his safety, such as wearing a hard hat, safety glasses, and ear protective devices in high noise areas. However, if he does not do these things, the company gets the citation, not the man. This makes it doubly important for you to know the rules, and to enforce them.
75	C	ECU	C	Chart #75	It's always important for a supervisor to set a good example. In the area of safety, it's double important for the supervisor not to set a bad example. Remember your employees won't do as you say - if they see that you yourself do not do as you say.
76	B	MCU	C	Tim	It's time now for Exercise No. 5 in your workbook, which will cover both the "Machine Guarding" and "Other" categories.
77	C	ECU	C	Slide #77 Produced by - Training and Development Dept. Baton Rouge Refinery, Exxon Company, U.S.A.	(Music - 10 Seconds)
78	C	ECU	C	Slide #78: Property of Exxon Company, U.S.A. Not To Be Copied	(Music - 10 Seconds)
79	C	ECU	C	(GSD logo)	
				End of videocassette	

MCD 000010178

SAL 000020741

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)

TITLE OSHA, Exxon and You

VTR SCRIPT--PAGE 1 OF _____ DATE 1/14/75 BY FSV/JWW/GJW

Revised 1/17/75

SCENE

TECHNIQUE: C-cut; Z-zoom; W-wipe; F-fade (or dissolve)

SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot

CAMERA or F.C.

				VIDEO	AUDIO
1	C	ECU	1	Exxon Logo (Alone)	Music (5 seconds)
2	F	ECU	1	"presents" (super)	Music (3 seconds)
3	F	ECU	1	Module BR-102 OSHA, Exxon and You" (super)	Music (5 seconds)
4	F	ECU	1	Segment No. 4 "Health at Exxon" Part A - "Occupational Disease" (super)	Music (10 seconds)
5	C	MCU	3	Tim	For years, supervisors at Exxon have been attending programs about Safety. However, those programs have emphasized the "accident" and "injury" aspects of industrial safety. In this segment we're going to concentrate on occupational "health".
6	C	ECU	1	Chart #6	Exxon had an excellent industrial hygiene and medical program long before OSHA was made law. However, occupational health has been an area that, for the most part, has been left to the Industrial Hygienist - the Medical Staff or the Safety Advisor.

MCD 000010179

SAL 000020742

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)

TITLE OSHA, Exxon and You

VTR SCRIPT--PAGE 2 OF ____ DATE 1/14/75 BY FSV/JWW/GJW

SCENE

TECHNIQUE: C-cut; Z-zoom; W-wipe; F-fade (or dissolve)

SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot

CAMERA or F.C.

				VIDEO	AUDIO
7	C	MCU	3	Tim	In this program, you're going to learn that you, as a supervisor, can do a lot, without the use of complicated testing equipment, to detect working conditions which could be harmful to you or your employees.
8	C	ECU	1	Chart 8	That's right, by using your eyesight, your hearing, your sense of smell - and especially your common sense - you can go a long way toward detecting situations which could be a danger to you and your fellow employees - Pause.
9	C	ECU	3	Tim	Industrial hygienists, doctors, and other trained professionals are an absolute "must" in any program for the control of occupational diseases.
10	Z	MCU	3	Tim	But, they should spend their time primarily on the jobs which call for the kind of skill and competence that they have, and not on an activity that you, the supervisor, can handle just as well.
11	C	ECU	2	Chart #11	But, don't forget that the health professionals are always available to help you. They're no further away than a phone call, no matter where you work in Exxon.

MCD 000010180

SAL 000020743

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)

TITLE OSHA, Exxon and You

VTR SCRIPT--PAGE 3 OF ____ DATE 1/14/75 BY FSV/JWW/GJW

SCENE

TECHNIQUE: C-cut; Z-zOOm; W-wipe; F-fade (or dissolve)

SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot

CAMERA or F.C.

					VIDEO	AUDIO
12	C	ECU	1		Chart #12	In this program, we'll first of all, talk about the main "Troublemakers" - the things that can cause occupational diseases or chemical injury.
13	Slide Off	ECU	1		Chart #13	Then, we'll explain how these troublemakers can be contacted by you or your employees if you don't follow the practices which are specified for working with these materials.
14	Slide Off	ECU	1		Chart #14	Following that, we'll describe what the results can be if you, or your employees, should become the victim of an occupational disease or injury.
15	Slide Off	ECU	1		Chart #15	Next, we'll talk about some peculiarities of occupational diseases, and why they're tough to deal with.
16	C	MCU	3		Tim	Finally, we'll also talk about what you, the supervisor, can do to find and control the causes of occupational disease - to reduce the possibility of having them "get to you," or to your employees.

MCD 000010181

SAL 000020744

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)

TITLE OSHA, Exxon and You

VTR SCRIPT--PAGE 4 OF ____ DATE 1/14/75 BY FSV/JNW/GJW

SCENE

TECHNIQUE: C-cut; Z-zoom; W-wipe; F-fade (or dissolve)

SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot

CAMERA or F.C.

				VIDEO	AUDIO
17	C	ECU	1	Chart #17	The so-called troublemakers which can cause health problems are - (slowly) noise, heat and cold, vibration, radiation, dust, fumes, mists, vapors, gases and liquids.
18	C	ECU	2	Sketch #18	Two aspects of noise are important - how loud it is, which is usually measured in decibels and its duration - that is, how long the noise lasts.(PAUSE)
19	C	ECU	1	Sketch #19	Heat and cold, the next troublemakers can cause health problems because there is an upper and lower temperature limit beyond which the body begins to suffer damage.
20	C	ECU	2	Sketch #20	The next troublemaker is vibration, which can range from the slow vibrations which you have with a relatively slow-operating reciprocating pump.--
21	C	MCU	3	Tim	-- all the way to relatively rapid vibrations, like those associated with the operation of a pneumatic jack hammer, or impact wrench.
22	C	ECU	1	Sketch #22	The next item is Radiation - it is also known by some more commonly known terms like x-rays, ultraviolet rays, infrared rays, gamma and cosmic rays.

MCD 000010182

SAL 000020745

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)
TITLE OSHA, Exxon and You
VTR SCRIPT--PAGE 5 OF ____ DATE 1/14/75 BY FSV/JWW/GJW

SCENE
TECHNIQUE: C-cut; Z-zoom; W-wipe; F-fade (or dissolve)
SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot
CAMERA or F.C.

				VIDEO	AUDIO
23	C	MCU	3	Tim	As you know, the ultraviolet radiation from the sun can severely burn your skin unless you take steps to shield yourself from it.
24	Z	ECU	3	Tim	In an industrial atmosphere, ultraviolet and infrared rays from welding can cause painful eye irritation if proper precautions are not taken.
25	C	ECU	1	Sketch #25	Now, let's talk about Dust -- what is it? (Pause) It's particles of any solid material which are so small that they can become airborne.
26	C	ECU	3	Tim	The wood and paint particles which you get when you sand an old piece of furniture are a good example. One of the more serious dust problems is asbestos dust. It's one that Exxon and OSHA are very much concerned about.
27	C	ECU	1	Sketch 27	Another item on the list of troublemakers is fumes. Fumes are a collection of tiny droplets of metal, resulting from heating or burning of metals. An example of this would be the fumes which are given off when lead is heated. These fumes are especially dangerous.

MCD 000010183
SAL 000020746

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)

TITLE OSHA, Exxon and You

VTR SCRIPT--PAGE 6 OF ____ DATE 1/14/75 BY FSV/JWW/GJW

SCENE | TECHNIQUE: C-cut; Z-zoom; W-wipe; F-fade (or dissolve) | SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot | CAMERA or F.C.

				VIDEO	AUDIO
28	C	ECU	2	Sketch #28	Mists are tiny liquid droplets which are suspended, and drift around in the air. Fog, which all of you are familiar with, is a mist of water.
29	C	ECU	3	Tim	Under the right conditions, any liquid, including some which are pretty dangerous, can be broken up into tiny droplets, and become a mist which can cover a wide area.
30	C	ECU	1	Sketch #30	Vapors are simply liquids which, through evaporation or boiling, have been changed into a gas. The vapors which come out of your gas tank when you remove the cap are one example. Another is the steam you get when you boil water.
31	C	ECU	2	Sketch #31	Gases are next on the list of troublemakers. Well known examples are carbon monoxide, oxygen, nitrogen, and the air itself.
32	C	ECU	1	Sketch #32	Now, let's discuss liquids. They can be a safety problem if they get sprayed, or splashed or spilled on an employee.
33	C	ECU	3	Tim	They can cause almost instant injury, but these injuries, such as acid burns, are not considered an occupational disease. Rather, they are termed accidents.

MCD 000010184

SAL 00002C747

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)
TITLE OSHA, Exxon and You
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SCENE
TECHNIQUE: C-cut; Z-zoom; W-wipe; F-fade (or dissolve)
SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot
CAMERA or F.C.

SCENE	TECHNIQUE	SHOT	CAMERA	VIDEO	AUDIO
34	Z	MCU	3	Tim	The health hazard associated with some liquids usually results from repeated exposure In other words, a small exposure to some liquids - repeated over and over again, even though they don't cause an immediate reaction can cause serious occupational diseases.
	C	ECU	1	Chart #35	Remember though that these troublemakers - the ones you see listed here, can cause injury or disease only if they find some way to enter the body. And, here's how they can.
36	C	ECU	2	Chart #36	All of the troublemakers, except noise, are contacted either by breathing them, by absorbing them through the skin, or by ingesting them along with something we eat, drink or smoke.
37	C	ECU	1	Sketch #37	The contact of "breathing" is extremely critical. It's the primary contact for most of the troublemakers we mentioned earlier - - dust, fumes, mists, vapors, and gases, which may be suspended in the air we breathe.
38	C	MCU	3	Tim	You've got to keep in mind that the lungs are very sensitive organs and are very easily injured.

MCD 000010185

SAL 000020748

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)

TITLE OSHA, Exxon and You

VTR SCRIPT--PAGE 8 OF _____ DATE 1/14/75 BY FSV/JWW/GJW

SCENE | TECHNIQUE: C-cut; Z-z00m; W-wipe; F-fade (or dissolve) | SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot | CAMERA or F.C.

				VIDEO	AUDIO
39	Z	ECU	3	Tim	Further, they very quickly pass hazardous materials into the bloodstream. Therefore, as far as occupational diseases are concerned, breathing is definitely the most important contact.
40	C	ECU	1	Sketch #40	The contact of absorption includes not only contact with the hands, although that is quite common, but also includes contact with all other parts of the body, such as the eyes, the mouth and unprotected parts of the head, face, neck and arms.
41	C	ECU	2	Sketch #41	Normally the skin acts as a barrier to protect the inside of our bodies from the harmful effects of many materials. Sometimes - while it's protecting our bodies - the skin itself can be seriously injured by corrosive chemicals, dusts, or excessive heat.
42	C	ECU	3	Tim	However, there are some materials, such as tetraethyl lead and phenol, that can pass directly through the skin and be absorbed into the body.

MCD 000010186

SAL 0C0020749

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)

TITLE OSHA, Exxon and You

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SCENE | TECHNIQUE: C-cut; Z-zoom; W-wipe; F-fade (or dissolve) | SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot | CAMERA or F.C.

				VIDEO	AUDIO
43	C	ECU	1	Sketch #43	Ingestion or swallowing, by eating, drinking or smoking, can be a definite source of contact if conditions in the area where your employees eat, smoke, or where their food is prepared, happens to be contaminated.
44	C	ECU	3	Tim	That's why sanitation and protection from contamination are so important in areas where potentially dangerous metals like lead and mercury are handled.
45	C	ECU	1	Sketch #45	Now, to the contact of hearing - Normally you don't think of hearing as a contact, but from an industrial hygiene standpoint it is. -
46	C	ECU	2	Sketch #46	You all know that an extremely loud noise, such as you experience when you shoot a shotgun, can hurt your ears. The ringing that you hear after a loud report is a warning sign that you may be damaging your hearing. With extremely loud noises, hearing can be permanently damaged with only one or two experiences.
47	C	ECU	3	Tim	Less intense noise levels can cause hearing loss, too - if the noise is high enough, and is continuous, or exists for a significant portion of the work period.

MCD 000010187

SAL 000020750

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)

TITLE OSHA, Exxon and You

VTR SCRIPT--PAGE 10 OF ____ DATE 1/14/75 BY FSV/JWM/GJW

SCENE | TECHNIQUE: C-cut; Z-zOOm; W-wipe; F-fade (or dissolve) | SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot | CAMERA or F.C.

				VIDEO	AUDIO
48	C	ECU	1	Sketch #48	Examples of this kind of potential noise problem are compressors - blowers - large motors - furnaces - vents - and the like.
49	C	ECU	2	SKETCH #49	The hearing loss may be more subtle for these lower-intensity, longer-duration noises and you may not realize what's happening until the Medical Department runs a routine audiogram, or...
49A	C	ECU	1	Sketch 49A	the wife asks (Pause) - "Good grief are you deaf?
50	C	ECU	1	Sketch #50	But subtle or not, the fact is that the loss of hearing is just as real - just as permanent, as if the loss occurred from a single, terrifically-loud explosion - (pause for transition)
51	C	MCU	3	Tim	So much for the troublemakers which cause industrial health problems, and how they can be contacted -- Now we'll tell you what some of the results can be when you do get exposed.
52	C	ECU	1	Chart #52	To keep it simple, we've boiled the list of results down to the six you see here -- (slowly) discomfort - inefficiency, sickness, disability, aging and death.

MCD 000010188

SAL 000020751

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)

TITLE OSHA, Exxon and You

VTR SCRIPT--PAGE 11 OF ____ DATE 1/14/75 BY ESV/JWW/GJW

SCENE | TECHNIQUE: C-cut; Z-zoom; W-wipe; F-fade (or dissolve) | SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot | CAMERA or F.C.

				VIDEO	AUDIO
53	C	ECU	2	Chart #53	Examples of discomfort would be the headache you get when you're around too much noise -- or the watery, burning of your eyes when you get into a mild concentration of some gas which causes these problems.
54	C	MCU	3	Tim	None of these discomfort problems, or a dozen others like them that you could think of yourself - are really all that serious, but they're still something to avoid.
55	C	ECU	1	Sketch #55	Inefficiency results, for example, when an employee has to leave the job for medical treatment, like having his eyes washed out, or to get medication for a nose irritation.
56	Z	MCU • ECU	3	Tim	Inefficiency can last for several days, or even weeks, and it's a real problem, even though it may never cause an employee to stay home from work.
57	C	ECU	3	Tim	When we feel rotten and run down, as we often do when we're about to get sick, we just can't do our best work.

MCD 000010189

SAL 0C002C752

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)
TITLE OSHA, Exxon and You
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SCENE
TECHNIQUE: C-cut; Z-zoom; W-wipe; F-fade (or dissolve)
SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot
CAMERA or F.C.

				VIDEO	AUDIO
58	C	ECU	1	Sketch #58	Sickness, the third result on our list, not only involves pain and suffering, - but most likely will cause the employee to lose time. Fortunately, most of the time the sickness is of short duration and after a few days the employee gets back to work. This is not always true, however - - -
59	C	ECU	2	Sketch #59	Disability, the fourth result of occupational disease, often involves not only more pain and suffering than a simple sickness, but it can also involve a lot more lost time.
60	C	ECU	3	Tim	Employees can become so disabled from lung diseases, kidney disorders, or even deafness, that sometimes they're not able to do their jobs.
61	C	ECU	1	Chart #61	Aging, the fifth result of being exposed to hazardous health conditions, really means premature aging. In other words, exposure to certain environments over an extended period can cause an employee to grow old - long before his time.

MCD 000010190

SAL 000020753

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)

TITLE OSHA, Exxon and You

VTR SCRIPT--PAGE 13 OF _____ DATE 1/14/75 BY ESV/JWW/GJW

SCENE | TECHNIQUE: C-cut; Z-zoom; W-wipe; F-fade (or dissolve) | SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot | CAMERA or F.C.

				VIDEO	AUDIO
62	Z	ECU * MCU	3	Tim	This premature aging can show up in the general condition of his health - that is, the way he feels, and in his absenteeism record.
63	C	MCU	3	Tim	Most importantly, however, aging can be the cause of premature disability. This can mean the loss of job and income, resulting in hardship to the employee and his family.
64	C	ECU	1	Sketch #64	Finally, death can result from exposure to some serious health hazard. This can happen instantly - as in the case of an accidental exposure to high concentrations of toxic gases, like hydrogen sulfide, or death can come later, as in the case of a fatal lung disease, or a terminal case of cancer.
65	C	ECU	2	Chart #65 (like #52)	With this wide range of consequences that can be caused by industrial health hazards -- all the way from simple discomfort to death, it should be clear that the prevention of occupational disease and related health problems is an important part of your job.

MCD 000010191

SAL 000020754

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)

TITLE OSHA, Exxon and You

VTR SCRIPT--PAGE 14 OF _____ DATE 1/14/75 BY FSV/JWW/GJW

SCENE

TECHNIQUE: C-cut; Z-zoom; W-wipe; F-fade (or dissolve)

SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot

CAMERA or F.C.

				VIDEO	AUDIO
66	C	MCU	3	Tim	There are a few peculiarities of occupational diseases that we need to mention. What is it about an "occupational" disease that makes it different from a standard, run-of-the-mill disease that has no connection at all with your occupation? - How is it different from the immediate injuries resulting from a single exposure to certain chemicals? -
	C	ECU	1	Chart #67	To begin with, most occupational diseases are slow to develop. They keep getting worse, all right -
68	C	ECU	2	Sketch #68	- but they do it so gradually and with such small changes from day to day, that it may be years before they get bad enough for the employee, or his doctor, to realize what's really happening.
69	C	MCU	3	Tim	This is not surprising, because most occupational diseases are usually caused by small, repeated exposures over a long period of time.
70	C	ECU	1	Chart #70	An occupational disease can be "latent" or "dormant" so that it may appear months, or years, after the worker has left the exposure.

MCD 00010192

SAL 000020755

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)

TITLE OSHA, Exxon and You

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SCENE

TECHNIQUE: C-cut; Z-zOOm; W-wipe; F-fade (or dissolve)

SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot

CAMERA or F.C.

				VIDEO	AUDIO
71	C	ECU	2	Sketch #71	For example, take benzene poisoning, which can comes from repeated exposures to benzene. It affects the ability of the bone marrow to generate new blood cells for your body. Sometimes it's years after the employee has been exposed before evidence of the disease shows up in a physical examination.
72	C	ECU	1	Chart #72	This next peculiarity is labelled "similar symptoms", and here's what that means.
73	C	ECU	2	Sketch #73	The symptoms of some occupational diseases are very similar to the symptoms of some non-occupational diseases. In fact, they can look so much alike that even doctors sometimes have trouble telling them apart.
74	Z	MCU * ECU	3	Tim	For instance, people sometimes show up with what appears to be nothing but a bad cold or the flu with chills, fever and headache - when, in reality, they're suffering from an ailment known as "metal fume fever". This is caused by inhaling fumes that come from heating metals like monel, chrome or zinc.
75	C	ECU	1	Chart #75	Sometimes, occupational diseases are just plain hard to recognize, particularly in their early stages. You can have the beginning of a disease for some time, and not really know it -

MCD 000010193

SAL 000020756

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease

TITLE OSHA, Exxon and You

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SCENE

TECHNIQUE: C-cut; Z-zoom; W-wipe; F-fade (or dissolve)

SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot

CAMERA or F.C.

				VIDEO	AUDIO
76	C	ECU	2	Sketch #76	- and maybe even a doctor would have trouble detecting the small changes that have taken place in the body. Even x-rays and other conventional examintion techniques can't always detect the slight, but important changes in the body or its functions.
77	C	ECU	3	Tim	One of the main reasons for this peculiarity goes back to the three others that we've already mentioned - that occupational diseases are slow to develop, they're latent (or dormant), and they resemble other diseases.
78	C	ECU	1	Chart #78	Finally, and unfortunately, most occupational diseases are irreversible.
79	C	ECU	2	Sketch #79	Whatever damage has been done prior to discovery of the disease cannot be corrected. Often, the best you can hope for is to keep it from getting any worse.
80	Z	ECU * MCU	3	Tim	The irreversible nature of occupational diseases shows up in such disorders as loss of hearing, which can never be recovered, and in diseases which damage the lungs and their ability to absorb the oxygen needed by your body, And in kidney diseases which decrease the body's ability to dispose of wastes.

MCD 000010194

SAL 000020757

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease

TITLE OSHA, Exxon and You

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SCENE

TECHNIQUE: C-cut; Z-zOOm; W-wipe; F-fade (or dissolve)

SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot

CAMERA or F.C.

				VIDEO	AUDIO
81	C	MCU	3	Tim	Now, when you have occupational diseases that are slow, in the way they develop, - that are sometimes hard for even doctors to recognize, and - worst of all - that cannot be reversed once the damage has started -- then you have a problem that everybody needs to work on--- and here's what you, as a supervisor, can do.
82	C	ECU	1	Chart #82	You should concentrate on prevention. Do everything you can to keep people from every getting occupational diseases in the first place. All of these diseases can be prevented. Here's how ----
83	C	ECU	2	Chart #83	First, study your safety standards. We repeat - study your safety standards.
84	C	ECU	1	Chart #84	Second, read the labels on materials that you or your employees use.
85	C	ECU	2	Chart #85	Third, be watchful for unusual dust, or vapor clouds.
86	C	ECU	1	Chart #86	Fourth, be alert for strong odors. (Pause)
87	C	ECU	2	Chart #87	Fifth, be aware of anything in the atmosphere that is out-ouf-the-ordinary that causes burning eyes or throat, or irritation of the skin.

MCD 000010195

SAL 000020753

MODULE No. BR-102 SEGMENT 4A-"Health at Exxon (Occupational Disease)

TITLE OSHA, Exxon and You

VTR SCRIPT--PAGE 19 OF _____ DATE 1/14/75 BY FSV/JWW/GJW

SCENE

TECHNIQUE: C-cut; Z-zoom; W-wipe; F-fade (or dissolve)

SHOT: ECU-extreme closeup; MCU-medium closeup; DS-distance shot

CAMERA or F.C.

				VIDEO	AUDIO
92	C	ECU	1	"Produced By:	(Music - 10 seconds)
93	F	ECU	1	"Property of Exxon Company, U.S.A. Not To Be Copied"	(Music - 5 seconds
94	F	ECU	1	End of Videotape	(Music - 5 seconds)

MCD 000010197

SAL 000020760

Module No. ____ SEGMENT 4B - "Health at Exxon" - Specific Hazards

VTR SCRIPT - PAGE 2 OF 23 DATE 12-10-74 BY FSV/JWW/GJW

TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)
(ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSEUP; DS = DISTANCE SHOT)

LINE	CAMERA	SHOT		VIDEO	AUDIO
2	B	MCU	C	Tim	As you just saw, Part "B", this second part of segment No. 4 on "Health at Exxon" is about specific health hazards. As pointed out in Part "A", the first part, occupational diseases are slow to develop. It's more or less like getting poisoned - just a little bit each day, so little in fact, that changes in the condition of an afflicted employee's health, from day to day, or even from month to month, are often not even recognizable. Probably the worst part of it all, is that many of the conditions which cause these health problems are also difficult to detect.
3	C	ECU	C	Chart # 3	That's why we think it's important to describe for you some of the occupational diseases, as well as some of the chemical injuries that you can get from the ten so-called bad actors that we've selected to tell you about
4	B	ECU	C	Tim	There's no doubt about the fact that this information will make you have more respect for the hazardous materials that you and your employees have to deal with. It will also make you better appreciate the need for following - to the letter- every instruction you get from the Company's medical and safety specialists concerning these health hazards.
5	B	MCU	Z	Tim	We believe that we used a practical, sensible basis for deciding what materials we would tell you about. Here's how we did it --

MCD 000010198

SAL 000020761

Module No. ____ TITLE ____ SEGMENT 43 - "Health at Exxon" - Specific Hazards

VTR SCRIPT - PAGE 1 OF 23 DATE 12-10-74 BY FSV/JWW/GJW

SCENE	CAMERA	SHOT	TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)	VIDEO	AUDIO
-2	C	ECU	C	Chart # -2 Exxon Logo	Music (5 Seconds)
-1	A	ECU	C	Slide # -1 (Presents) (Suspended over background from Camera B)	Music (3 Seconds)
0	C	ECU	C	Module Title (Suspended over background from Camera B)	Music (5 Seconds)
1	A	ECU	C	Slide # 1 (Suspended over background from Camera B)	Music (10 Seconds)

MCD 000010199

SAL 000020762

TECHNIQUE FOR OBTAINING SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)

ENG CAMERA SHOT → (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

	ENG	SHOT		VIDEO		AUDIO
11	A	ECU	C	Chart # 11		Asbestos, cadmium and lead fall into the "dust and fumes" category.
12	C	ECU	W	Chart # 12	2 3	Benzene, sulfuric acid and phenol - or "Carbolic Acid", as it is sometimes called, can be a hazard either in liquid form, or in the form of a vapor.
13	A	ECU	W	Chart # 13	4 5	Three hazardous materials that are usually found only in the form of gas are hydrogen sulfide, chlorine, and carbon monoxide.
14	C	ECU	W	Chart # 14	6 7	Finally, the last item is "noise", which is neither a material nor a chemical, but it's a condition which can cause serious problems, including permanent hearing damage.
15	B	MCU	C	Tim		We have reason to believe that OSHA, in deciding what industrial health problems to devote attention to, will take much the same approach that we've taken - that is, they'll concentrate on the really bad actors that industrial employees are pretty generally exposed to.

fwd

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MCD 000010200

SAL 000020763

Module No. BR-102 SEGMENT 4B - "Health at Exxon - Specific Hazards

VTR SCRIPT - PAGE 3 OF 23 DATE 12-10-74 BY FSV/JWW/GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)
(ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT		VIDEO	AUDIO
6	A	ECU	C	Chart # 6	-- We looked very carefully at a long list of potential troublemakers, and we asked these two questions about each one.
7	C	ECU	C	Chart # 7	First, what are the chances of the average Exxon supervisor running into this chemical or material in his work situation?
8	A	ECU	W	Chart # 8	-- and, second, what are the consequences to an employee of breathing or being splashed, sprayed, or otherwise contacted by the chemical or substance? The ten items we did select to tell you about all came up with the right answers - or maybe the wrong answers, depending upon how you look at it --
9	C	ECU	W	Chart # 9	That is, the chances are good that all of you will run across most of these hazardous materials in some part of your operations, and the consequences of being over exposed to most of them are likely to be quite serious.
10	B	MCU	C	Tim	Now it's quite possible that you may have a potential occupational health hazard of some kind in your plant that's not on our list. If so, it's because there are many chemicals and other potential hazards that are not common to the entire Exxon circuit. To cover such a situation, your instructor has been asked to get for you, the same kind of information about that particular hazard, as the kinds we're giving to you about the ten items which are on our list. The ten so-called bad actors fall into four logical groups, as you see here.

MCD 000010201

SAL 000020764

Module No. BR-102 SEGMENT 4B - "Health at Exxon" - Specific Hazards

VTR SCRIPT - PAGE 6 OF 23 DATE 12-10-74 BY FSV/JWW/GJW

SCENE / CAMERA / SHOT — TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
20	A	ECU	C	Chart # 20 11	Long-term excessive exposure has been known to produc "asbestosis", which is a permanent scarring of the lungs. In recent years asbestos has been indited as a cause of "mesothelioma", which is a type of cancer of the lining of the chest wall.
				12	
				COMMENTS: 1 - glove/blankets - returned by bench. 2 - new insulation - asbestos free	
22	B	MCU	C	Tim 13	Since cancer of any kind is strictly bad news, this makes breathing excessive asbestos dust something definitely to avoid. One very practical tip to remember about asbestos is that if any dust at all is visible in the air, then you may have a problem that needs to be investigated and corrected.
				14	
23	A	ECU	C	Chart # 23	Asbestos fibers, like all of the other nine hazards on our list, have what is referred to as a TLV, or threshold limit value. This represents the amount of asbestos fibers , or other hazardous material, that an employee can safely contact, in the air around where he works, on the average, over an 8-hour period for 5 days per week over an average working life time
				15	
24	C	ECU		Chart # 24	For example, the TLV for asbestos is 5 fibers, each longer than 5 microns, for every cubic centimeter of air. This number, or any TLV, is not a sharp dividin line between safe and unsafe conditions, but represen a point at which protective measures may need to be applied.
				MCD 000010202	
	B	MCU	C	Tim	Since many factors may affect the real importance of the TLV, only qualified persons - such as industrial hygienists or safety specialists - should make decis- ions based on these values.

SAL 000020765

Module No. BR-102 SEGMENT 4B - "Health at Exxon" - Specific Hazards

VTR SCRIPT - PAGE 5 OF 23 DATE 12-10-74 BY FSV/JWW/GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
16	B	ECU	Z	Tim	When we talk about "exposure" from an occupational disease standpoint we're talking about day-in, day-out exposure, over the full eight hours of an employee's work day, to what may seem like, and actually be, relatively small concentrations. This is in contrast to the immediate effects associated with a chemical accident.
17	A	ECU	C	Chart # 17 (like # 14)	Your instructor was asked beforehand whether or not any of these hazards are of unusual importance in your plant's operations. If he feels that you need even more information than we give you during the next few minutes, then he'll see to it either that you get it, or that you find out where to get it.
18	B	MCU	C	Tim	~~If~~, after this program, you're still ~~concerned~~ about one or ~~more of the materials that~~ we or your instructor talk about, ~~you should check with your~~ safety department. Now, here's what we want you to know about the bad actors - let's take asbestos first.
19	C	ECU	C 39 4e	Chart # 19	8 Asbestos is a component of hundreds of industrial materials, from insulation to gaskets, to transite pi to marinite board, to welding gloves and blankets - 9 just to name a few. The dust from these materials, insulation in particular, contains the airborne 10 fibers that cause a health problem. When they're inhaled, these fibers stay in the lungs.

MCD 000010203

SAL 00020766

PROGRAM NO. BR-102 SEGMENT 4B - "Health at Exxon" - Specific Hazards

VTR SCRIPT - PAGE 8 OF 23 DATE 12-10-74 BY FSV/JWW/GJW

TECHNIQUE FOR SEQUENCING SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)
(ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SEQ.	CAMERA	SHOT		VIDEO	AUDIO
29	A	ECU	C	Chart # 29	Lead poisoning is characterized by gastro-intestinal disorders, anemia, weakness, and even brain damage. Since the fumes and dusts of lead are not always visible, the best practical advice is this.

not here
comment - lead burners
exposure not widespread
smoking/eating
lead painting/sanding
baby cubs

MCD 000010204

SAL 000020767

SCENE / CAMERA / SHOT / TECHNIQUE (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
				25 CONT'D.	There are also ceiling values, or maximum values for some chemicals, dusts and fumes that should not be exceeded for even short periods of time. From time to time, the industrial hygienist may be checkin for these values, also.
26	A	ECU	C	Chart # 26	~~Now, we're going to spend some time describing how you contact these ten bad actors, and the consequence of doing so~~. Let's move on to the second item on our list, which is lead.
27	B	ECU	C	Tim 16	**Lead** can cause a problem either when you swallow it, or when you inhale it. In industry, lead is more likely to be inhaled than swallowed. Lead metal, alloys, coatings and paints are all widely used in industry for such purposes as the lining of acid systems, for corrosion prevention.
28	C	ECU	C	Chart # 28 17	When lead is heated above its boiling point of 1613 degrees Centigrade, it may condense as a fine particle, or fume. When this fume is inhaled, it's absorbed into the body, causing lead poisioning.
28a	B	MCU	C	Tim 18 19	Finely divided lead, as a dust, can also be taken into the lungs, and that, too, can result in lead poisoning. Swallowing lead dust on food can also increase lead intake, and measures must be taken to insure washing of hands before eating or smoking. It is very important that foods be stored and eaten outside the lead working area.

MCD 000010205

SAL 00002763

Module No. BR-102 SEGMENT 4B -"Health at Exxon" - Specific Hazards

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SEQ. CAMERA SHOT → TECHNIQUE FOR DESIGNATED SHOT: C = CUT; Z = ZOOM; W = W.P.C; F = FADE (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
34	A	ECU	C	Chart # 34	To illustrate the seriousness of cadmium fume poisoni we'd like to tell you what actually happened to a 35-year old California welder. (Pause). After less than 2 hours of brazing indoors with a cadmium silver alloy, without supplementary ventilation or respirato protection, he became quite ill.
35	C	ECU	C	Chart # 35	The next day he was too sick to go to work, and had chest pains, a severe cough, and fever. Since neithe the worker nor his doctor knew about the cadmium in the alloy, an antibiotic was prescribed and the patient went home, believing he had only metal fume fever, a mild ailment which is fairly common to welde
36	A	ECU	C	Chart # 36	The third day, as a result of the medication, he seemed to feel a little better as the day passed, and believed that he was getting well.
37	C	ECU	C	Chart # 37	On the fourth day, however, early in the morning, he was found dead. An autopsy showed that extreme lung hemorrhage was the primary cause of his death.
38	B	MCU	C	Tim	Because its fumes are so extremely dangerous, every supervisor should make it his business to learn whether or not any cadmium or cadmium-coated material are used in his operations. Distinguishing cadmium-plated materials from galvanized materials is sometir very difficult.
38a	A	ECU	C	Chart # 38a	A simple test involves very gently heating a small spot of metal, about the size of a nickel, with a welding torch. Be sure not to burn off the metal. After such gentle heating, cadmium will form a gold-yellow film. In contrast, zinc will turn

MCD 000010206

SAL 000020764

VTR SCRIPT - PAGE 9 OF 23 DATE 12-10-74 BY FSV/JWW/JGW

SCENE / CAMERA / SHOT / TECHNIQUE FOR SUBSEQUENT SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (→ ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
29a	B	MCU	C	Tim	Always take every precaution you can against fume inhalation in any work situation which involves the heating of lead to its boiling point, or where fine lead dust could possibly be getting into the atmosphere.
30	C	MCU	C	Chart # 30	Another extremely bad actor is the third item on the list, cadmium. **Cadmium** is used as plating on other metals, and as a coating on certain industrial hardware items like bearings, nuts, bolts, and washers for example. It's also used in metal alloys that wind up in welding and brazing rods, wires and solder.
31	A	ECU	C	Chart # 31	When it's heated to above 610 degrees Fahrenheit, its melting point - as in brazing and welding operations - it gives off fumes into the breathing zone of the worker. These fumes, when inhaled, are extremely toxic and can cause the employee's death.
32	B	MCU	C	Tim	In fact, cadmium fumes are so extremely dangerous that at one point they were considered for use in chemical warfare. This is one metal that Exxon tries to avoid using, so you may never encounter it. However, every supervisor should be aware of the highly dangerous nature of cadmium and prevent it from injuring a worker.
33	B	ECU	Z	Tim	Even in concentrations strong enough to kill you, cadmium fumes have no strong warning odor or immediately irritating effects. By the time you start feeling bad, you may already be so badly exposed that you might die within a few days.

COMMENT

MCD 000010207

SAL 000020770

Module No. BR-102 TITLE OSHA, Exxon and You

SEGMENT 4B - "Health at Exxon" - Specific Hazards

VTR SCRIPT - PAGE 12 OF 21 DATE 11-27-74 BY FSV/JWW/GJW

SCENE - CAMERA SHOT → (TECHNIQUE FOR ESTABLISHING SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR FREEZE). ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSEUP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT		VIDEO		AUDIO
44	C	ECU	C	Chart # 44	24	**Sulfuric acid** is the next specific hazard, and here's why it can be a health problem.
45	C	ECU	C	Tim	25	Sulfuric acid is used in petroleum refining and chemical manufacturing as an extractant and treating agent - that is, to remove undesirable impurities from products. It, and other similar acid compounds are irritants to the mucous membranes of the eyes and respiratory tract, even at very low levels of concentration. / While irritation of the skin can also occur, the first symptoms of excessive exposure are usually to the eyes and the respiratory tract.
					26	
46	A	ECU	C	Chart # 46	27	Acid mists are generated by one or more processes, such as stirring, pouring, or mechanical or air agitation of liquid acids. / When particles of acid, in the form of droplets, or mist, become airborne, they get into the eyes, or get inhaled.
					28	
47	C	ECU	C	Chart # 47	29	Chronic exposure to sulfuric acid mist, above the accepted working levels, may cause continuous irritation of the throat, sinuses and eyes, as well as a chronic cough, ~~and even erosion of tooth enamel~~.
					30	
48	B	ECU	C	Tim	31	Every supervisor should stay alert for any abnormal conditions involving the presence of sulfuric acid, either as a liquid or airbone mist.
					32	
49	A	ECU	C	Chart # 49	33	Phenol is the next item on our list - and, as you'll recall, it's sometimes referred to as carbolic acid.

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Module No. BR-102 SEGMENT 4B - "Health at Exxon" - Specific Hazards

VTR SCRIPT - PAGE 11 OF ____ DATE 12-10-74 BY FSV/JWW/GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR OPTIMIZING SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (→ DIRECTION) (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TECHNIQUE	VIDEO	AUDIO
				38a - CONT'D.	a smoky-grey color. Be sure to limit this test to a few seconds, to prevent overexposure to cadmium fumes.
39	B	ECU	C	Tim	Employees who must do welding or brazing or burning which involves cadmium alloys or cadmium-coated materials should be provided with proper ventilation with respiratory protective devices - and, most importantly, with warnings about the extremely dange ous results of breathing cadmium fumes.
40	C	ECU	C	Chart # 40	So much for the dangerous dusts and fumes - let's talk now about the three hazards which can be a prob lem in both liquid and vapor form. Benzene is the first one.
41	B	MCU	C	Tim	Benzene is widely usedin industry as a solvent and a a chemical raw material from which other chemicals are produced. It has a sweet pleasant odor, but if you can smell it, you're probably in a concentratio that's too high to be safe without protective equip
42	A	ECU	C	Chart # 42	The vapors of benzene are toxic to the blood-formin organs of the body - that is, the bone marrow. Chronic poisoning, which is brought on by prolonged exposures to excessive levels of benzene, results i a form of anemia, or absence of certain types of blo cells. This condition may become irreversible, and many experts feel that it may also end up as leuke
43	B	ECU	C	Tim	Any employees who may come in contact with benzene their work should be told about the very real h associated with benzene exposure. Every possible s guard should be provided to prevent such exposures, including the repairing of leaks, engineering chang

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SCENE / CAMERA / SHOT / TECHNIQUE FOR SEPARATING SCENES: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)
(ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT		VIDEO	AUDIO
54	B	ECU	C	Tim	Phenol in any form should be handled with extreme care. The practical tip to remember is that if your eyes and nose become irritated by phenol vapors, then you're probably in a concentration which is too high for safety.
55	B	ECU	Z	Tim	To sum it up, phenol - like all of the other hazardous materials we've mentioned so far, is bad news, if you get contacted by it long enough, or in high enough concentrations to let it burn you seriously, or affect your central nervous system.
56	C	ECU	C	Chart # 56	Every effort should be made to educate, and continually reeducate, every employee who works in phenol area, about the dangerous effects of phenol.
57	A	ECU	C	Chart # 57	This brings us to the items that are normally found in gaseous form only - hydrogen sulfide, chlorine, and carbon monoxide. Let's take hydrogen sulfide first.
58	B	MCU	C	~~Tim~~ 34 16 35	Hydrogen sulfide or "H_2S" as it is sometimes called is a highly toxic gas which is encountered in the refining of sulfur-rich crude oils, in the decomposition of organic matter, and in certain kinds of gases.
59	B	ECU	Z	Tim 34 3	It has a characteristic odor of rotten eggs. It's threshold of odor is very low - about 1/10 of a part per million. One good thing - and the only good thing - about H_2S, is that you can smell it long before it reaches a dangerous level of concentration.

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Module No. BR-102 SEGMENT 4B - "Health at Exxon" - Specific Hazards

VTR SCRIPT - PAGE 15 OF 23 DATE 12-10-74 BY FSV/JWW/GJW

SCENE	CAMERA	SHOT	TECHNIQUE FOR SEGMENTS INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR SUPERIMPOSE) (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)	VIDEO	AUDIO
60	C	ECU	C	Chart # 60	But, and this is an important but, the ability to smell hydrogen sulfide is lost after only a short ti... because it paralyzes the sense of smell. / It can also produce eye irritation after several hours at concentrations of around 100 parts per million.
61	A	ECU	C	Chart # 61	Concentrations of hydrogen sulfide as low as 700 to 1000 parts per million can be fatal within a few minutes. The gas acts upon the centers of the brain which control breathing. / Breathing stops and the victim can only be saved through prompt mouth-to-mout resuscitation or some other life-sustaining action.
62	B	ECU	C	~~Tim~~	It's very difficult to pick any one of these hazardou materials we're talking about, and call it "the worst or "the most dangerous." They're all hazardous to some degree, and should be treated with the utmost care and respect at all times.
63	C	ECU	C	Chart # 63	Chlorine gas is the next of our gaseous hazards. And here's the story on it. (Pause)

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TECHNIQUE FOR OPTIMIZING SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)
CAMERA SHOT → (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

	CAMERA	SHOT		VIDEO	AUDIO
64	B	MCU	C	Tim	Chlorine is a greenish, yellow gas, supplied from cylinders of compressed chlorine. | It's used in water treatment and for bleaching and oxidizing purposes.
65	A	ECU	C	Chart # 65	It has a pungent, suffocating odor. It is so poisonious that it was the first poison gas used in warfare. It's absorbed on the eyes and in the lungs where it forms hydrochloric acid and acts as a strong irritant. | Severe damage to the lungs and to the eyes can result from fairly brief exposures to levels of only a few hundred parts per million.
66	B	ECU	C	Tim	So, the same warning applies here - educate your employees about the dangers of chlorine, and provide every possible protection against releases of dangerous concentrations of the gas. | And remember - if you can smell it, or if your eyes and nose are irritated by it, you could be approaching an unsafe concentration of the gas.
67	C	ECU	C	Chart # 67	Carbon monoxide is a gas all of us know about - as one of the gases that come out of an automobile's exhaust pipe, or from indoor heaters, charcoal fires, etc.
68	B	MCU	C	Tim	Carbon monoxide is a product of incomplete combustion of a number of materials, like hydrocarbons, wood, and coal.

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Module No. BR-102 TITLE OSHA, Exxon and You
SEGMENT 4B - "Health at Exxon" - Specific Hazards

VTR SCRIPT - PAGE 17 OF 23 - DATE 11/27/74 BY FSV/JWW/GJW

SCENE / CAMERA / SHOT / TRANSITION FOR OPTIONAL SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE) → (ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT	TRANSITION	VIDEO		AUDIO
69	A	ECU	C	Chart #69	53 54 55 56	It combines with hemoglobin of the blood to produce what is known as carboxy hemoglobin. In this form, the hemoglobin cannot transport oxygen from the lungs to the brain, and asphyxiation results. / When severe carbon monoxide poisoning has occurred, even medical help may not prevent the victim's death.
71	B	MCU	C	Tim	57	The early symptoms of carbon monoxide poisoning are headache, nausea, drowsiness, and eventually loss of consciousness.
					58 59 60	Poor ventilation, or no ventilation, in and around engines, heaters and other fuel burning equipment can lead to carbon monoxide poisoning. / Wherever these potential hazards exist, supervisors should see that proper ventilation, or other safeguards, are provided and that employees are made aware of the possible presence of a carbon monoxide hazard.
72	C	ECU	E	Chart # 72	61	The last item on our list is noise. The simplest definition we've run across for it is that noise is "unwanted sound". So, any sound that you'd just as soon be without, or not have around, is noise.
73	A	ECU	C	Chart # 73	62 63 64 65	Excessive noise is an occupational health problem because it has been shown to produce a permanent loss of hearing among exposed individuals. / In an industrial area, some major sources of high noise levels are compressors, blowers, electric motors, vents, furnaces, and impact tools.

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Module No. BR-102 SEGMENT 4B - "Health at Exxon" - Specific Hazards

VTR SCRIPT - PAGE 18 OF 23 DATE 11/27/74 BY FSV/JWW/GJW

TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)

CAMERA	SHOT	(ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)	VIDEO	AUDIO
74 C	ECU	C	Chart # 74	One of the early symptoms of excessive noise exposure is a temporary loss of hearing, or a ringing in the ears. However, much of the permanent early hearing loss can be detected only by a medical testing instrument called an audiometer. What this means is that an employee could already be suffering from some amount of hearing loss, without being aware of the damage.
75 B	ECU	E	Tim	One of the best rules of thumb to follow is this one. If you have to talk above your normal volume when you're at arm's length from someone, then you're hearing a noise level above 90 decibels. This is too loud to be around continuously without ear protection. The reference to the decibel level of a noise is simply a measurement technique used to express the relative loudness of a noise.
76 B	MCU	Z	Tim	The scale used is a linear, or straight-line, scale, but the loudness represented by the numbers increases logarithmically. The important thing to remember about this is that the loudness, or intensity, increases ten times more than the numerical increase in the decibel reading each time you take a step up the decibel scale.
77 A	ECU	C	Chart # 77	As you can see here, the noise level in a typical quiet room is about 40 decibels. An industrial compressor, like the kinds many of you are familiar with, can put out 120 decibels of noise or more. The noise from a turbojet engine measures around 160 decibels. Here's an illustration of the logarithmic effect we just told you about.

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Module No. BR-102 TITLE OSHA, Exxon and You
SEGMENT 4B - "Health at Exxon" - Specific Hazards

VTR SCRIPT - PAGE 19 OF 23 DATE 11/27/74 BY FSV/JWW/ GJW

SCENE / CAMERA / SHOT → TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)
(ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
78	C	ECU	C	Chart # 78	A jet engine, at 160 decibels, is only a little more than twice the numerical decibel reading for normal conversation, which runs about 70 decibels. But, the noise of a jet engine is actually one billion - that's right, one billion times louder than normal conversation. This is why people who work around jet aircraft must, ~~and do,~~ wear ear protection. Their hearing might soon be damaged if they didn't.
79	A	ECU	C	Chart # 79	Here's another more meaningful example. A compressor which runs at about the 120 decibel level, is only about 3/4 more than the numerical decibel reading for conversation, but the compressor is actually 100,000 times louder than a normal conversation.
80	B	MCU	C	Tim	We mention this, not because you need to become an expert at understanding and interpreting decibel readings of various noises. That job is for the industrial hygienist or other noise specialists to handle. We mention it because it's important for you to recognize that what may seem to you like a relatively small increase in the decibel reading of a noise could be an important change in the actual loudness and intensity of that noise. Here are some practical tips for you to follow in providing protection for your employees against excessive noise levels.

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TRAINING FOR SPECIFIC HAZARDS SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (A DISSOLVE)

(ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT		VIDEO	AUDIO
82	A	ECU	C	Chart # 82	First, if you have any areas which you believe have excessive noise levels, bring them to the atttention of your ~~safety department~~ supervisor, so that they can arrange to check the decibel level and make recommendations about what should be done.
83a	B	ECU	C	Tim	Maybe you'll wind up needing an overall noise survey of your plant. That may be very helpful, because the best protection of <u>all</u> against the hazard of excessive noise is to eliminate the noise, or at lea reduce it to a tolerable level.
83b	B	MCU	S	Tim	Keep in mind that ear protection devices are not the primary <u>solution</u> to the noise problem, since exposures may be reduced by either lowering the nois level, or shortening the time of exposure. However, ear plugs and ear muffs are two of the most common types of ear protection. Besides reducing the noise level, these devices actually make it easier to hear sounds in the voice range.
84	C	ECU	C	Chart # 84	The second thing you should do is to post signs in areas where the sound level is known to be excessive so that employees in the area will know to use ear protection. <u>You</u> should see to it that the employees have the kind of ear protection which they need.
85	A	ECU	C	Chart # 85	The third thing you can do is to consider rest periods away from high noise levels, or maybe job rotation, for those employees whose jobs <u>do</u> require them to work around continuous, excessive levels of noise.

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Module No. BR-102 SEGMENT 4B "Health at Exxon" - Specific Hazards

VTR SCRIPT - PAGE 20 OF 23 DATE 12-10-74 BY FSV/JWW/GJW

SCENE / CAMERA / SHOT / TECHNIQUE FOR DISSOLVE INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (AS DESIRED) (ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

				VIDEO	AUDIO
86	C	ECU	C	Chart # 86	Finally, you can help the medical department in making sure that hearing checks are made periodically on employees who work in and around excessive noise levels, so that any problem which develops can be detected before the noise causes permanent damage to their hearing.
87	A	ECU	C	Chart # 87	This completes our discussion of specific health hazards of the so-called big 10 listed here - asbestos, lead, cadmium, benzene, sulfuric acid, phenol, hydrogen sulfide, chlorine, carbon monoxide, and noise.
88	B	MCU	C	Tim	We hope that we've impressed you enough with the importance of all of them, so that you now understand a little better than you did, the need for being alert for any dangerous conditions which may develop in the work area.
89	B	ECU	Z	Tim	We should emphasize that OSHA is becoming more and more active in this whole area of occupational disease and health hazards. Some standards have already been established. Others will be established in the future. Eventually, all of these hazardous industrial materials we've described to you will be covered by OSHA standards.
90	C	ECU	C	Chart # 90	Exxon is interested in either meeting or bettering these standards for the same reason that OSHA is establishing them, to prevent occupational disease and related health problems among employees. Actually, most of the protective measures called for by OSHA are "old hat" to our safety, industrial hygiene and medical people.

Module No. BR-102 SEGMENT 4B - "Health at Exxon" - Specific Hazards

VTR SCRIPT - PAGE 22 OF 23 DATE 11/27/74 BY FSV/JWW/GJW

TECHNIQUE FOR GETTING INTO SCENE: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)

(ECU = EXTREME CLOSEUP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT		VIDEO	AUDIO
91	B	MCU	C	Tim	It's very unlikely that there's any continuing, serious health hazards in your plant that the Company's industrial hygienists and medical personnel don't already know about. And you can be sure that they're doing everything possible to correct the situation.
92	A	ECU	C	Chart # 92	The importance of your role as an Exxon supervisor is that you and your fellow-supervisors are the ones that these trained specialists look to, to learn of changed conditions and new developments that involve the handling of hazardous materials or potentially dangerous operations.
	B	ECU	C	Tim	If you know of, or suspect, some hazard, and you don't report it to your safety department, you're doing yourself, your employees, and your company, a real disservice.
94	B	MCU	Z	Tim	Another thing you want to keep in mind is this. We've been talking about the health aspects of these hazardous materials in this particular segment. In other segments we talked about safety. But it's not always that easy to draw a line and separate safety problems from health problems.
95	C	ECU	C	Chart # 95	They often go hand in hand. How they are classified is something you should't worry about. Any problem which can result in one of your employees getting sick, getting hurt, or disabled in any way, is one which should get your attention.

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TECHNIQUE FOR SWITCHING SCENES: C = CUT; Z = ZOOM; W = WIPE; F = FADE (OR DISSOLVE)
(ECU = EXTREME CLOSE-UP; MCU = MEDIUM CLOSE-UP; DS = DISTANCE SHOT)

SCENE	CAMERA	SHOT		VIDEO	AUDIO
96	B	MCU	C	Tim	When you tell your employees about the industrial hazards which may be in their work areas, be sure to stress the tragic results of carelessness. The auto-driving slogan - "The life you save may be your own" - applies very well in this area of occupational disease and health hazards. Remember it well, and ask your employees to remember it also. (Pause) It's time now for Exercise No. 7 in your workbook.
97	A	ECU	C	Slide # 97 (Credits chart) (Supered over color from Camera B)	Music (5 Seconds)
98	C	ECU	C	Slide # 98 (Copyright Chart) (Supered over color from Camera B)	Music (5 Seconds)
99	A	ECU	C	Slide # 99 (End of Tape) (Supered over color from Camera B)	Music (5 Seconds)

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5. Tell the group that if an employee or his representative requests to review the Act, Standards, or OSHA Regulations which the Company has available the request must be handled promptly. If such a request is made, consult your supervisor or the Safety Advisor. [Reference 1903.2(c)]
6. Know that there are some flaws in Segment 1. The instructor can use his discretion as to whether or not to point these out.
    a. No roll-over protection on bulldozer.
    b. No overhead protection on forklift truck.
    c. No safety belts or nets used by men on the steel structure.
    d. Segment I refers to 5 million businesses covered by the Act. Segment II states there are 4 million businesses covered. The actual figure is between the two mentioned.

Segment 2 - "OSHA Inspection"

1. Segments 1 and 2 are on the same videocassette. There is about 20 seconds of blank tape between the segments. Segment 2 starts at about a 350 dial reading on a Sony Videocassette Player Model VP-1000.

Segment 3A - "Workplace Violations"

1. Point out that the use of handrails is desired on both sides of a loading rack where it is practical to install them. They can be omitted if they are not practical and the falling hazard is minimized by using a runway at least 18" wide. [Reference 1910.23(c)(2)]
2. Table P-1 Approximate Angle of Repose for Sloping of Sides of Excavations (1926.652) states: "Clays, Silts, Loams or Non-Homogenous Soils Require Shoring and Bracing. The Presence of Ground Water Requires Special Treatment."

If there is any question about the soils at your installation they should be resolved with your Safety Advisor and Engineering Department.

3. A ladder is shown as the means of access to trenches 4 feet or more deep. Steps or other suitable means of access are also permissible.

Segment 3B - "Electrical Violations"

1. Review this segment with persons who are familiar with electrical practices at your plant. If there are any differences or special electrical problems at your plant point them out during this segment.
2. Tell the class whether a tag-out or lock-out procedure is followed at your plant. You may want to pass out copies of the procedure during the segment.
3. Point out that the video tape tends to over emphasize the importance of the intrinsically safe label. The label is just a good means of identifying equipment which is safe to use in a hazardous area. It is possible that equipment without a label is safe but in these cases further checking is required to verify that it is.
4. Point out that a ladder, crane boom or other equipment does not actually have to contact a high voltage line to complete a path to ground. The air itself can be part of the path and an arc can be established if the equipment comes too close to a line. This is the reason for the specified 10 feet or more clearance requirement.

Segment 3C - "Machine Guarding and Other Violations"

1. Point out that abrasive wheel guards should cover the spindle end, nut, and flange projections.

Segment 4A - "Occupational Disease"

1. Point out that although not specifically referred to, the nurse is an important part of the medical team which helps in combating industrial health problems.

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Segment 4B - "Specific Health Hazards"

1. Check with the industrial hygienist, Safety Advisor or medical staff for your facility to determine if there are unusual health problems at your facility which should be discussed. Find out what the problem materials are, how they can be detected, how they effect people who are exposed and find out what protective measures should be taken. If specific safety standards are available for these materials mention where copies can be obtained.
2. Point out that the asbestos in gloves, welding blankets, and gaskets is usually retained by a binder or has too few particles to be a problem to employees.
3. Point out that there should be very little or no cadmium materials in Exxon plants because purchase specifications exclude the use of this material. It was stressed in this segment because it is such a bad actor that all supervisors should be on the alert for this material. It is possible that it could be brought in the plant as a substitute for zinc plated materials.
4. Point out that sulfuric acid does not normally cause tooth enamel erosion. Erosion of tooth enamel has been observed in "mouth breathers" in acid plating and other high exposure jobs. In our operations we would not expect this problem.

SUGGESTED INTRODUCTORY COMMENTS

1 - Program is Worthwhile

I think this program about the Occupational Safety and Health Act is worthwhile and necessary.

It's worthwhile, because we've put the OSHA program together in such a way that it saves lots of time, your time. In just a few hours, you'll be able to learn from this program what it might have taken you days, or even weeks, to dig out for yourself from the mountain of information which is available on OSHA

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2 - Program is Necessary

It's necessary, because the company has an obligation to be sure that all of its employees understand what is expected of them in all areas of their work, including safety, and how they and their jobs may be affected by any local, state or federal laws.

3 - Will Help Supervisors Understand OSHA Better

I believe that this overall program will enable you to better understand OSHA, in general, and what it means to you, as supervisors. More specifically, the program will acquaint you with some of the real problems and situations at the company's refineries and plants - and how you are involved. When the Federal Congress passed the OSHA law, they did so with this purpose in mind - quote, to assure, so far as possible, safe and healthful working conditions to every employee in America, and to preserve this country's human resources, unquote. We agree with the purpose of OSHA which was stated by Congress.

4 - Interest in Safety Nothing New for Exxon

Being interested in safety is nothing new to Exxon. For years, the company has been very active in providing safe, healthful working conditions for its employees. Now, the Federal Government is in the safety business with us, implementing the Occupational Safety and Health Act. As far as we're concerned, this simply sets up one more incentive to keep moving in a direction that Exxon has always regarded as a sensible one to be heading in.

5 - Supervisors Occupy Key Positions

As supervisors, all of you occupy key positions on the overall Exxon safety team. You and the nonsupervisory employees who work for you are really the only ones who can keep our safety record good - or make it bad.

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6 - You Have Management Support

As you go about handling your safety responsibilities and helping the company meet or surpass OSHA's safety requirements, you can be sure that you have my support, and the support of every other manager in your plant. All of us feel very strongly that we can count on all of you to do a good job in this area!

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LIST OF SUPPLEMENTAL PUBLICATIONS

1. Superintendent of Documents
   Government Printing Office
   Washington, D. C. 20402

OSHA 2056 - "All About OSHA"

A 23 page 5" x 8" booklet telling the who, what, where, when, why and how of the Occupational Safety and Health Act of 1970.

OSHA 2057 - "The Principles and Techniques of Mechanical Guarding"

A 58 page 8" x 10" illustrated booklet giving the principles, techniques and construction specifications for Mechanical Guarding (1973 price $0.90/copy)

OSHA 2072 -"General Industry Guide for Applying Safety and Health Standards 29 CRF 1910"

A 30 page 8" x 10" index of OSHA standards arranged by categories - Workplace, Machine and Equipment, Materials, Employee, Power Source, Process, and Administrative Regulations.

OSHA 2082 -"Training Requirements of the Occupational Safety and Health Standards"

A 22 page 8" x 10" listing of training requirements organized by type of operation.

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OSHA 2085 - "Employer-Employee Safe Practices for Excavation and Trenching Operations"

A 15 page 6" x 9" illustrated pamphlet covering excavations and trenching.

OSHA 2087 - "15 Questions - Know the Answers - - - - Help Prevent Cave-ins"

A 5 page 5" x 8" pamphlet containing 15 questions and answers which will help prevent trenching and excavation accidents.

OSHA 2089 - "Trenching & Excavations - A Check List

A 2 page 5" x 8" listing of factors to be checked before, during and after trenching or excavating.

OSHA 2201 - "General Industry - OSHA Safety and Health Standard Digest"

A 57 page 4" x 6" pocket size booklet that contains a digest of the General Industry Standards. Approximately 90% of the standards are covered in an "easy to read" form.

OSHA 2202 - "Construction Industry - OSHA Safety and Health Standard Digest"

A 47 page 4" x 6" pocket size booklet that contains a digest of approximately 90% of the Construction Industry Standards in easy to read form.

2. National Safety Council
   425 North Michigan Avenue
   Chicago, Illinois 60611

MCD 000010227

Stock No. 129.67 - "Guards Illustrated"

A 104 page 8" x 10" manual with discussion and illustration of numerous machine guards. Illustrations are of a somewhat

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better quality than the OSHA publication, however, the material covered is essentially the same.

Stock No. 159.09 - Supervisor's Safety Observation Handbook

An 18 page 6" x 9" booklet which helps the supervisor establish a program for making safety observations in his work area. It discusses the why, how and when of safety observations as well as the importance of housekeeping, lighting, material handling, machines and equipment, clothing, protective equipment, temperature extremes and other environmental conditions and plans for emergencies in the overall safety observation plan.

Data Sheet 254 Revision A - "Trench Excavation"

A 5 page 8" x 10" data sheet complete with illustrations covering the techniques of trenching. The data sheet presents a lot of information in concise form.

3. Bureau of Business Practice
24 Rope Ferry Road
Waterford, Connecticut 06385

"What Every Supervisor Must Know About . . . . The Occupational Safety and Health Act"

A 64 page 5" x 8" booklet which gives a three page condensation of the OSHA Act and dedicates the rest of the booklet to the basics of safety.

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4. Institute for Management
P. O. Box 733
Old Saybrook, Conn. 06475

"The Supervisor's OSHA Compliance Handbook"

A 52 page 5" x 8" booklet on the supervisor's role in safety with an OSHA overtone. Well written in "story" form.

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