0.	Blank slide	(no sound)
1.	Conoco logo	(Music up full to establish, then down)
2.	Art title/drawing of lead weight, with LEAD on side.	The topic today is lead, an element found in nature, and one of the ingredients we use to make products here at the Aberdeen chemical plant.
3.	Type/Lead: What it is Where it is How it affects your health	We want you to know what lead is, where it is found in our plant, and how it can affect your health.
4.	Type/Signs of overexposure How you can protect yourself	You'll also need to know the signs of overexposure, and how you can protect yourself from unnecessary exposures to lead.
5.	Photo/Employee taking test	At the end of this program, we'll give a written test, to make sure we all understand the important things about lead-related health problems, and what we need to do to prevent them.

6.	Type/Limits on your exposure to lead	To insure your health and safety, Conoco Chemicals Company has established strict limits on your exposure to lead. Our rules generally follow the standards called for by OSHA--that's the federal Occupational Safety and Health Administration--but our regulations often exceed their standards.
7.	Photo/Two people talking	Lead can be handled safely! We're all working to keep on-the-job exposures to lead as low as possible. That's why we need everyone's help and support.
8.	Type/Where we fit in	This program will help explain what Conoco Chemicals is doing and where each of us fits in.
9.	Art/Tombstone	The reason we are limiting exposures to lead is because excessive exposures can cause serious illness, or even death.

10. Split photo/Lead weight/ Pile of powder

Lead is normally a dense, silvery metal, but here at our plant you generally find it in powder form.

11. Art/Inhaling dust

Lead can enter the body by breathing it in...

12. Art/Dusty fingers on sandwich

...or by swallowing it on your food.

13. Art/Cross section of leg, lead stored in bones, muscles

Your body has the ability to eliminate or pass off only a certain amount of lead each day, and repeated exposures above that level can cause the body to store the excess lead in the bones and other tissues.

14. Type/Lead can damage:
    - o Nervous system
    - o Kidneys
    - o Reproductive organs
    - o Blood chemistry

As the concentration of lead steadily increases, it can damage the nervous system, kidneys, reproductive organs and blood chemistry.

15. Type/Signs of over-exposure:

- o Stomach pains
- o Loss of appetite
- o Nausea
- o Metallic taste

Early signs of overexposure to lead--which may vary depending upon the amount of exposure--are stomach pains, loss of appetite, nausea and a metallic taste in the mouth.

16. Type/Signs of over-exposure

- o Constipation
- o Weakness or tiredness
- o Nervous irritability
- o Slight tremors

Other signs of overexposure to lead are constipation, excessive weakness or tiredness, nervous irritability and slight tremors.

17. Type/Don't play doctor

If you have any or all these symptoms, that doesn't necessarily mean you're suffering from lead poisoning. Don't play doctor. Let a qualified physician evaluate your condition. If you do notice some of these symptoms, though, and you suspect they could be related to overexposures to lead, tell your supervisor ~~or the plant nurse~~.

18.	Art/Body cutaway showing brain, spinal cord, nervous system/Type over/Nervous system damage	Continued buildup of lead in the body can cause damage to ~~both~~ the ~~central~~ nervous system--~~the brain and spinal cord and the peripheral nervous system.~~
19.	Type/Nervous system damage: o Irrational behavior o Insomnia o Convulsions o Headaches	Early symptoms of central nervous system damage include irrational behavior, insomnia, convulsions and headaches.
20.	Art/Man laying on ground/type over/seizures, cardiac/respiratory arrest, death.	More severe brain damage may result in uncontrollable seizures, followed by coma, cardiac or respiratory arrest and even death.
21.	Type/Nervous system damage: o Pain in body's trunk o Weakness in legs, arms and neck	Damage to the other parts of the nervous system may result in severe pain and tenderness in the body's trunk muscles, and unusual weakness in the legs, arms and neck.

22. Photo/arm extended, limp wrist

One of the results of overexposure to lead is a condition called "wrist drop"--where it's difficult or even impossible to hold the wrists out straight with the arm when the arm is extended.

23. Type/Nervous system can't be repaired

Damage to the nervous system is particularly serious because nerve cells don't have the ability to repair themselves.

24. Type/Kidney damage

The kidneys may also be damaged by excessive exposures to lead over long periods. And by the time kidney damage can be detected, it's too late to correct the condition.

25. Type/Reproductive system damage

Overexposure to lead can also affect the human reproductive process.

26. Art/Male silhouette typeover/Decreased sex drive, impotence, reduced sperm count, sterility

In men, possible effects include decreased sexual drive, impotence, reduced sperm count and sterility.

27. Art/Female silhouette/type over/Abnormal monthly cycles, premature births, miscarriages, reduced fetal growth

Possible effects in women include abnormal monthly cycles, premature births, miscarriages, lower birth rates and reduced fetal growth.

28. Type/Damage to blood

Damage to the blood system includes interference with the formation of heme, a complex molecule which is concerned with the transportation and use of oxygen throughout the body.

29. Type/Where lead is found

Now that you know how dangerous lead can be, let's take a look at where it's found in the plant.

30. Photo/Truck

Chemical compounds containing lead come into the plant by truck...

31. Photo/Truck being unloaded

...on pallets, which are unloaded and stored in the raw materials warehouse. These materials are used primarily on the compound lines and in the color weigh room.

32.	Type/Lead compounds are used as heat stabilizers,	They serve as heat stabilizers in our PVC compounds.
33.	Photo/Bags of lead compounds Type over/Dibasic lead phosphite Dibasic lead phthalate Dibasic lead stearate Lead carbonate Tribasic lead sulfate	Common types of lead materials we use in the plant include: dibasic lead phosphite; dibasic lead phthlate; dibasic lead stearate; lead carbonate; and tribasic lead sulfate.
34.	Type/Jobs which may bring you into contact with lead compounds:	Some of the specific jobs that may bring you into contact with these lead compounds are:
35.	Repeat slide #31	...unloading raw materials containing lead from trucks...
36.	Photo/Storing	...storing them in the raw materials warehouse...
37.	Photo/Testing lead	...quality testing raw materials containing lead...

38.	Photo/Making lab batches	...making up lab batches of lead-containing PVC compounds...
39.	Photo/Transporting	...taking raw materials from the warehouse to the compound lines or the color weigh room...
40.	Photo/Charging blenders w/3M airhat	...charging the blenders on the compound lines...
41.	Photo/Worker in color weigh room w/3M airhat	...weighing up small batches of lead materials in the color weigh room...
42.	Photo/Forklift	...and, when the bags are empty, taking them by forklift to the trash compactor for disposal.
43.	Photo/Compactor	At the compactor, too, you can come into contact with lead.
44.	Photo/Millmen	In addition, mill operators may periodically contact lead-containing "pre-blends" during product changes and maintenance work.

45. Photo/Maintenance men working in area with airhat

Also, maintenance employees could be exposed while working on equipment near the compound lines or in the color weigh room.

46. Photo/quad split of slide #s 40, 41, 43, 45

Okay, now you know lead is bad for you, where it's found in the plant, and how you can be exposed to it. What, then, are we doing to prevent you from being overexposed to lead?

47. Type/Conoco Chemicals' lead limit: 8 hours--50 micrograms per cubic meter

Conoco Chemicals' work rules and practices limits your exposure to lead-containing materials to no more than 50 micrograms of lead per cubic meter of air, averaged over an eight-hour period.

48. Photo split/Storage sphere and lead shot

That's about equal to the weight of one size-7 lead shot from a shotgun shell if it were mixed in a volume of air equal to that in our VCM storage sphere.

49.	Type/More than 8 hours? Exposure reduced accordingly	If you work more than eight hours a day, your allowed exposure is even lower.
50.	Build on slide #47/12 hours--33 micrograms per cubic meter	For instance, if you work 12 hours, your average exposure limit is no more than 33 micrograms of lead per cubic meter of air.
51.	Type/Skin contact regulated	And, even though lead can't be absorbed through the skin, your skin contact with lead materials is strictly controlled by work rules, because after you've worked around lead compounds, you could later transfer small amounts of the powder to your mouth--when eating, smoking or during personal grooming.

52. Photo split/Compound blender hood and color weigh hood

Our goal here at the Aberdeen chemical plant is to reduce lead exposure levels through engineering changes and sound work practices. The ventilation systems in the compound area and color weigh room catch dusty materials--including lead--as they are generated. This prevents them from being inhaled and reduces skin contact.

53. Photo/Worker holding vacuum system hose

The separate vacuum system helps keep these areas clean.

54. Type/Engineering controls are not fool-proof

Engineering controls, however, are not 100 percent-effective. They could fail to operate properly.

55. Type/Work rules

Therefore, we've established some work rules to protect your health.

56. Build on slide #55/
- o breathing protection
- o personal hygiene

The rules are aimed at two things: Breathing protection, and personal hygiene.

57.	Photo/split of slide #s 40, 41	First, breathing protection. Any person charging blenders at the compound lines, or working in the color weigh room while ingredients are being weighed, will be required to wear a 3-M airhat, for effective breathing protection.
58.	Photo/Signs	In addition, these work areas are marked with signs. Be sure you follow them!
59.	Photo/Disposable coveralls	In terms of personal hygiene, whenever you are handling lead compounds, you must wear disposable coveralls to keep the lead from contaminating your clothes or skin.
60.	Photo/Employee washing hands in middle rest room	And, if your job assignment requires you to come in direct contact with lead-containing materials, you must wash your hands, arms and face and other exposed areas of skin when you've finished. This is most important.

61.	Photo/Removing disposable coveralls	Take off your disposable coveralls and leave them in the work area before you enter lead-free areas of the plant--especially the break room, rest room and control room areas.
62.	Photo/employee vacuuming clothes	You must also vacuum off your clothes thoroughly before leaving the area.
63.	Type/No food, drinks, tobacco consumed/No cosmetics or grooming agents applied	Because you might accidentally get lead in your mouth, no food, drinks or tobacco products are allowed in the controlled areas, and no cosmetics can be applied.
64.	Type/These items must not even be carried into these areas	In fact, these items must not even be carried into these areas, because they could pick up lead compound dust, and you could ingest it later.
65.	Photo/Another employee washing up	Leave your food, drinks, tobacco and cosmetics outside the controlled areas. Then, once you leave the area, and <u>before</u> you use them, be sure to wash your hands, arms, face and any area of exposed skin thoroughly, <u>and</u> vacuum your clothes.

66.	Photo/Employee putting empty lead bags into dumpster	When weighing batches of lead materials in the color weigh room, or charging blenders with lead-containing materials, you must follow the prescribed operating procedures to help keep down the dust. Also avoid unnecessary crushing or handling of the empty bags outside the ventilation hood.
67.	Photo/Another employee cleaning area	To minimize your contact with lead-contaminated equipment or materials during maintenance, repairs or similar work, make sure the equipment and work area is first properly cleaned by the operating department.
68.	Type/Work rules are for <u>everyone</u>	All persons, such as plant visitors, vendors, contractors, or delivery persons, must also follow our work rules regarding lead.

69.	Photo/Employees leaving plant	Now for a word to take home with you. Obviously, the lead materials in the air could settle on your clothing, and could go home with you.
70.	Type/Wash up before going home	That's why we require you to wear disposable coveralls, vacuum off your clothes and wash your face, hands and other exposed skin before leaving the plant. If you do this, you shouldn't have any problems about taking lead dust home.
71.	Type/Change clothes at home	But, it would <u>still</u> be a good idea to change clothes when you get home, and take a shower, too.
72.	Type/Put clothes away Wash them often	And put your work clothes and shoes away so they won't be disturbed until they're worn again or washed. And, wash them often.
73.	Photo/Air sampling system	We use a personal air-sampling system on a regular basis to check your exposures to lead in the work areas.

74.	Photo/Employee dosimeter card	When you wear one of the monitoring devices, you'll also be given a dosimetry card. When you fill this out at the end of the work shift, be sure to record those times you wore a respirator, and the work you were doing.
75.	Photo/Employee filling out card	Also include any unusual events that could have been a cause for overexposure to lead. This kind of information, when cross-checked with the lab results we get back from the air samples, will help us correct overexposure problems as soon as possible.
76.	Type/ We'll inform you of any overexposure	And, of course, if the results indicate you may have been overexposed to lead, we'll let you know as quickly as we can.

77.	Type/Overexposure? WHY??	Whenever any of our tests indicate you may have been overexposed to lead--from whatever source--we'll be checking with you about the possible causes of the overexposure. The object is to isolate the source of lead so we can take steps at once to correct the problem.
78.	Photo/Checking vent hoods	We also regularly measure air flows through the work area vent hoods. When these flows drop below acceptable levels, the system is thoroughly checked and cleaned out or repaired as needed.
79.	Type/Free medical testing	To insure that our work practices are effective, and to make sure you don't suffer from the harmful effects of lead, we provide free medical tests twice a year.
80.	Photo/Blood test	This is done by blood lead analysis--the only fool-proof way to be sure your exposure is within safe limits.

81.	Photo/Employee looking at records	Our lead monitoring and medical records are available for your inspection. Just ask the Safety Department. You will also receive a copy of the results of your physical at the time the doctor examines you. And, we'll provide a copy of your medical records for your doctor if you request it in writing. We recommend that your own personal physician keep accurate and up-to-date records for you on file.
82.	Type/Chelation--speeds removal of lead from the blood	Even though testing shows that blood lead levels of our employees are well within acceptable limits, and shouldn't require any medical treatment, we still want to mention chelation. It's a type of medical therapy used to speed up removal of lead from the blood.
83.	Type/Should not be used routinely	However, it <u>can</u> be dangerous and should not be used routinely.

84.	Type/Under direction of licensed physician	If it's medically necessary to chelate the blood, it must only be done under the direction of a licensed physician. Ask your doctor.
85.	Type/Review	Now for a quick review.
86.	Repeat slide #14	Remember the hazards of lead exposure: Sufficient quantities can damage your nervous system, kidneys, reproductive organs and blood chemistry.
87.	Repeat slide #20	It can even kill you.
88.	Art/Split of slide #s 11, 12	Lead can be inhaled or taken into the body through the mouth. The form of lead we use in our plant cannot be absorbed through the skin.

89.	Repeat slide #57	Wear the proper clothing and breathing protection equipment when charging blenders at the compound lines or working in the color weigh room while batches are being weighed.
90.	Repeat slide #60	Always wash your hands, face, arms and other exposed skin, and vacuum your clothing after leaving one of the controlled areas, or after handling lead compounds. Remember, lead can get in your blood from the sandwich you eat with dirty hands, even if you obey all the other work rules.
91.	Repeat slide #63	That's the reason no food, drinks, tobacco products or personal grooming aids are allowed in any of the controlled areas.
92.	Type/Monitoring and medical testing are for your benefit	Finally, our monitoring and medical testing programs are for your benefit.

93.	Type/Question and Answer time	We appreciate your cooperation. Let's take a break now for questions and answers.
94.	Blank slide	(no sound)