Freshen Up Your Refresher Training: Games and Activities for Safety Training You Deliver Annually

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Introduction

One of the most common challenges of safety and health professionals that deliver safety training is how to keep refresher training interesting year after year. A 2008 survey of over 600 safety trainers showed this to be one of the highest challenges for more than half of all respondents. (See survey results in Appendix A). In many cases, this training is only repeated because "OSHA says so" and the Trainer and the trainees end up showing equally poor interest. A summary of training that must be delivered annually according to OSHA can be found in Appendix B.

The activities presented in this paper are intended to keep your refresher training fresh but in most cases they can also be used with classes that you are designing and delivering for the first time. All of these activities are based on the principles of accelerated learning.

The principles of accelerated learning have been presented at previous ASSE Professional Development Conferences and described in the corresponding Proceedings papers. The titles of these papers are included in this paper's bibliography. To briefly summarize, the principles of accelerated learning are:

Total Learner Involvement Enhances Learning

Learning should involve the whole mind and body. Games and activities are a great way to get the trainees' mind and body involved for maximum participation.

Learning is not the passive storage of information but the active creation of knowledge By working through an activity such as a game, the trainee is working to learn and make connections and not just being fed information. When this happens, the information is more meaningful and will be retained longer.

Collaboration among learners greatly enhances learning

Good learning is social and we can learn much more by learning with our peers than we can by ourselves. Safety training games and activities, for the most part, are group activities. Even when the activity is a simple safety crossword puzzle, teams can work on the puzzle together to increase learning.

<u>Activity – centered learning events are often superior to presentation-centered ones</u>

If you ask someone to sit still and just look at a bunch of slides or listen to a speaker, learning will not be as great as if the same material was presented along with an activity that would relate to

the material at hand. Activity, or doing the work itself, enhances learning. Even when there is no replacement for a lecture format, trainees can stay active through guided note-taking, frequent question and answer periods, and reviews.

BEE-B

It is important to point out that people will not automatically learn more because they are standing up and moving, but if you combine physical movement with intellectual activity and use all of the senses, this can have a profound effect on learning. Training activities and games can do just that. It's easy to understand and remember this with the acronym "BEE-B."

B = Body Work

Body work refers to the body and includes what we can touch and feel such as hands-on learning activities. This is the activity-centered training discussed above. Obviously, this is not how most of us were taught.

E = Ear Work

Our ears are continually capturing all types of information and processing and storing it without us even realizing it. When we make our own sounds by talking about this information, it has even more staying power. All learners, especially auditory ones, learn by sounds, dialog, reading out loud, telling someone out loud what they experienced, heard, learned, or by talking to themselves, remembering jingles, listening to audio cassettes and repeating sounds in their head. Providing "Ear Work" to auditory learners works very well.

E = Eye Work

Eye Work refers to learning by using your eyes. Visual acuity, or the amount of visual perception, is present in everyone. Like auditory sensitivity, visual acuity is more pronounced in some people than in others. Visual learners need to "see" what you are talking about and in these cases, Eye Work is very effective. Visual learners learn best when they see real world examples, idea maps, pictures and images. Sometimes these people learn even better when they are asked to create their own images such as pictograms or mind maps.

B = Brain Work

Brain work is the "intellectual" part of the equation. It does not mean academic. It refers to the internal intellectual process that is taking place in the trainee's head when he or she makes connections with the material just learned with experiences that occurred in the past, or when they make plans for using the information just learned. Basically, it is the process the learner uses to make sense of their new knowledge. Learning exercises must sufficiently challenge this intellectual side of the learner. It is extremely important not to leave this part of learning out when you are including the somatic (activity), auditory (hearing), and visual (what they see) elements. Without the intellectual portion, the training can seem frivolous and silly and even a waste of time.

Effective Training Activities

What makes a training activity effective? Safety training activities should incorporate a combination of chance and skill whenever possible. If too much chance is involved, the activity becomes nothing more than a game of chance-- basically a waste of time and a mindless activity. Imagine tossing dice for twenty minutes straight just for the purpose of trying to get the highest number. That would be boring. If a safety training activity involves too much skill, it quickly becomes a quiz and although quizzes have their place in safety training, you do not want a safety training activity to turn into a test. You want to make sure you incorporate at least a little fun.

Why Fun?

If it is enjoyable, trainees will want to take part and will be more involved in the activity, which will result in greater learning. Activities that are fun will also keep their attention longer. Positive emotions are very important in enhancing learning. If someone is sitting endlessly in a lecture, they probably won't have positive emotions for very long. Activities can help with these positive emotions. If someone is stressed or bored or angry, their learning will be inhibited. If learning is positive, relaxed and engaging, learning will be increased.

The principles of accelerated learning are a perfect match for safety training. So much of safety training can be improved by having the trainees actively involved and accelerated learning principles strive to do just that.

Probably the best thing about refresher classes is that the majority of your audience will have some idea of what you are talking about already. This is a big advantage since you can often jump right into the learning activity. If you have been delivering the same topic to the same group of people for years, you have many options in front of you. Some of the most frequently delivered safety training topics include Hazard Communication, Respiratory Protection and Lock-Out/Tag-Out (although all of these do not require annual refresher training). Most of the activities below can be used for these 4 topics and easily modified to fit any of them, as well as others.

Suggested Training Activities

Brain Dump – If your trainees report to training complaining that they already know everything and that the training is a waste of time, *Brain Dump* can work well. To have your trainees participate in the *Brain Dump*, you first divide the class into teams of 2-4. Give each team a piece of paper and tell them to number it 1-20. (For longer classes, you can have the teams number their pages 1-40 or 1-50). Tell the team they will have 5 minutes to write down as many key items or phrases they can think of that relate to the information that will be presented (and no word or phrase can be repeated). If they can think of more than 20 items, they should keep going. At the end of the allotted time, check to see which team has the most words or phrases and announce them the winner. Share the wining team's list with the class and use it to lead your review and discussion. Be sure to add in other important points to be covered that may not be included in the list.

Team Test – For a *Team Test*, you first divide the trainees into teams of 4 or 5. Instruct the teams that their job is to make up a set of ten test questions for another team. Depending on how well you believe the trainees already know the majority of information, you may want to do this as an opening activity or after you have provided the refresher. After every team has completed their questions, the tests should be collected and then redistributed among the other teams. Teams can work on their test questions as a group. When all teams have finished, pick a team to share their

test and their answers. When they have finished, ask if other teams had different questions and ask them to share those questions and answers.

Write-On BINGO – *Write-On BINGO* works much like regular BINGO in that the winner must get 5 squares in a row or diagonally crossed off. With *Write-On BINGO*, instead of having a number and letter called, the trainee is free to select the squares they want but the key is that they must answer the question in that square correctly. To make the game more challenging, you can require the trainees to mark off two lines.

Safety Sequence - Safety Sequence is a good activity for training topics that include a series of steps or a safety procedure, such as lock out tag out or confined space entry. Safety Sequence can be a real learning tool. To organize the game, you will need to find a simple illustration or photo (one you take yourself is fine if the picture is clear and clearly shows the step) of each step of the procedure. For a simple lock out tag out exercise, the photos you might want to include would be 1) Determine the Hazards, 2) Notify Others, 3) Isolate Energy Sources, 4) Remove Potential Energy, 5) Verify Lock Out, 6) Perform Work, 7) Prepare to Start up again, 8) Remove locks and tags, 9) Test Equipment, and 10) Notify others when work is complete. Make copies of these photos or drawings so you can put one step on a small card and make several sets of cards (one set for each group of trainees). After the material has been presented, shuffle the cards and give a set to each group. Tell them they have 1 minute to get the cards in the proper order, with the first step of lock out first in the pile and the last step in the lock out tag out procedure should be last. After one minute has passed, tell the groups to stop and review the steps in the proper order. Ask each group if they have the same order or if they disagree. If the groups complain about having only one minute to do the exercise, begin a discussion about how difficult it can be to make important decisions when rushed and why it is very important to thoroughly understand critical safety procedures. An example of a Safety Sequence illustration set for lock-out/tag-out is provided in Appendix C.

Pyramid Power – *Pyramid Power* can be used with any topic. Before class you need to collect or purchase a number of small boxes that you can write on. Craft supply stores like Oriental Trading Company sell these inexpensively. Alternatively, you could "go big" and use many large boxes (and these may be easier to find around your facility, depending on where you work). Before class, you will need to prepare the boxes - at least 10 per team. If you have a class of 20, 4 teams of 5 would work great and in this case, 40 boxes are recommended. On each of the boxes write a question related to the class topic on the bottom side of each block and then put all of the boxes in a basket at the front of the room. If you have two teams, tell the team that they are to send a team representative to the front of the room to pick two random boxes out of the basket. Each individual should take them back to their team and then their team needs to try to answer the two questions. When they answer the questions, (directly on the block) they can use them to start building their pyramid. If they answer the two questions on the first two blocks correctly, they can go back to the basket and randomly pick up more blocks/questions. Every time they answer a question on a block, they can use it to build their pyramid. If they do not know the answer, they can return the block to the basket and pick another. This should continue, with both teams selecting blocks and building, until all blocks are gone. The idea is for all questions on all blocks to be answered and for each team to compete in building the highest pyramid or tower out of blocks. They can arrange the blocks however they want as long as they use only blocks. If all works well, the team that answered the most questions correctly should also have the highest tower. When a winner is declared, each block should be removed from their pyramid one by one and each question and answer read and reviewed with the class.

Listening Teams – *Listening Teams* will help teams stay focused on the presentation of the material. This can be effective if you want to show a video or if you have a prepared PowerPoint

presentation that you need to cover. By assigning trainees to each of 4 teams, you will help them to stay focused. The four teams should include: Questioners, Agree-ers, Naysayers, and Example Givers. Tell the class that you will present a review of the material (the video or PowerPoint) and that afterwards, each team needs to present a summary of the information they were assigned to cover. The Questioner group should think of additional questions that they could ask about the topic which were not covered in the presentation of the material. The Agree-ers should think of at least 5 things that were said or done in the video that they agree with. The Nay-sayers should think of 5 things, if they can, that they disagree with or don't like. The Example-Givers should present 5 good examples of safety procedures related to the topic. After you present the information and give the teams a few minutes to complete their assignments, call on each team and ask them for their report.

Movie Reviewer- Many safety refresher classes fail when the entire class consists of showing a video on the topic, especially when the same video is shown every year. If you must show a video, consider using *Movie Reviewer*. To play *Movie Reviewer*, tell the class that while they are watching the class they are to act as movie critics and to look at and assess:

- the realism of actors
- relevance of the video
- unforgettable moments
- organization
- applicability to your workplace

When the video is over, poll the class and rate the movie. If you have a lot of time (or two short movies) you can even have the class watch two videos and compare and rate both. The differences in the two videos will provide the class with a lot to discuss.

Safety Sort – *Safety Sort* is one of the best activities for any type of training class so it can also be a very good addition to a refresher class. With *Safety Sort*, you list out a number of items or conditions on index cards before class. The number of items and number of cards will depend on the topic and how long you want to spend on the activity. With a refresher class, *Safety Sort* could be your kick-off activity and the discussion could lead into your review of the class material. For example, if you were providing a refresher class on Hazard Communication, you could make up a set of *Safety Sort* cards that contain different names of chemicals that are in your facility and then ask the teams to sort them by chemical type. For example, flammables in one pile, oxidizers in another and so on. (You will need to make a set of the cards for each team). After about 10 minutes, ask each team how many cards of each type they have in each pile. If these numbers are different, you have a great opportunity for discussion.

Store It – To play *Store It*, you will need index cards and envelopes or small files boxes. List out common chemical products that you use and store in your facility and place these on the ten cards. The envelopes or small file boxes represent different storage cabinets in your facility. Make a set of the cards for each team and provide them with several envelopes/file boxes. Tell all teams that it is their job to work together to place the correct chemical cards into the correct storage cabinets (envelopes/boxes). After all teams are finished, have each team review what chemicals they placed in each container (envelope/boxes).

Flashback - For a refresher class on confined spaces (although you could modify this activity to work with many topics) you can use the Confined Space Sketch (found by clicking the special CS link at www.HazardHunt.com). Put the trainees into teams and then give each team a copy of the Confined Space flashback drawing but put it face down in front of each group and tell them they cannot look at it until you tell them to, When you say go, they should turn over the picture and

study it for 1 minute. After one minute, you should ask them to turn it back face down and then with their team, begin to create a list of all of the hazards they saw that relate to confined space entry. After about ten minutes, review each item on each team's list and discuss as a class.

Plain English – Often, OSHA annual training includes a review of the applicable OSHA standards but reading OSHA standards word for word, or having to listen to someone read OSHA standards word for word, can be a pretty painful experience for both trainee and trainer. To use the *Plain English* activity, you need to divide your class into teams and then provide each team with a copy of a section of an OSHA regulation (or other regulation such as those issued by EPA, MSHA, States, etc.) that pertains to the topic you are presenting. Ask each team to decipher what they read and write a summary of that particular part of the regulation as a *Plain English* paragraph. Tell them they cannot use any words with more than 6 letters and all sentences must have less than 10 words. At the end of the exercise, they will share their plain English paragraph with the rest of the class. This provides a great review of the material you need to cover plus gives you an opportunity to see where there may be any confusion and a chance to provide clarification and further details.

Rapid Recall – Rapid Recall can easily be used as the focus of an entire refresher class. Before class, you will need to develop a "Recall Sheet" with questions that address all important pieces of information that are included in the class topic. You will also need to gather summary information and enough copies for several teams. To begin, you should put trainees into teams and provide each team with training topic summary materials. This could be as simple as a few pages of notes or the company policy or procedure on that topic. Depending on the complexity of the topic, you can give the teams 5 to 15 minutes of time to review the material. When time is up, give each team a chance to recall important information about the topic. Keep the time for this portion of the activity relatively short. They can talk amongst their teammates but they cannot look at the summary material you provided. After enough time has passed, usually about 5-10 minutes, ask each team to tell you how many of the questions they were able to answer. The team that says they have the most answers correct should be selected to start the review. Ask the team to read through each question they answered and to present their answer to the class. After each question is answered, ask if any of the other teams have anything to add. If all teams have responded and all of the pertinent information was not covered, use this time to provide the additional information that needs to be covered in this review class. Continue until all questions on the Rapid Recall sheet have been answered.

Debriefing

Finally, we need to say a word about debriefing. Debriefing is a term often used to describe the time when you help the trainees, through the asking of specific questions, to reflect upon an activity. After all is said and done, people are going to learn from the activity when they are able to reflect on the experience. When the trainees are wrapped up in the activity, they may be laughing or deep in a team discussion so they probably aren't thinking about what they are learning. Debriefing is the most important part of the exercise but unfortunately it is also usually the most overlooked. Many safety professionals have never even heard of the word.

Debriefing should encourage discussion. It is suggested that you have a list of questions developed that will help you to achieve the particular learning objectives for the class that you are delivering. For example, imagine the learning objective of a safety leadership class was for supervisors to choose between different forms of communication (like acknowledgement,

parroting, or paraphrasing). Based on this objective, you could come up with the following possible debriefing questions:

- What form of communication did you use in this activity?
- What occurred in this activity that you could use back on the job?
- What did you like least about the method of communication used in this exercise?

It is good to start off with generic debriefing questions such as "What did you like most about this activity?" Also, make sure you have a question or two that is going to help them take the training they received and apply it back in the workplace. In the above example, you could ask "When would paraphrasing be good to use back on the job?" Keep in mind that you always want debriefing to lead to a two-way conversation. Do not ask questions that can be answered with a yes or no. Also, never tell someone that their answer is wrong. An answer to a debriefing exercise is based on a person's perception of the experience so there is really no right or wrong answer. If you do get an answer that does not reflect what you saw, try to ask the question again in a different way. When you are in the planning phase of your training class, create more debriefing questions than you think you will need. Remember, debriefing is really a way for the trainees to discover for themselves what they have learned.

Summary

Safety training is often one of the only opportunities we have to get the undivided attention of the employees we work with. It is our responsibility to make this training the best that it can be. Just because a training topic is delivered annually, that is no reason to cover it less thoroughly or with less enthusiasm. In fact, just the opposite is true. If regulatory standards require a class to be delivered annually, than it is likely a very important topic that needs repeating annually. Take advantage of the time that management and trainees must commit to annual refresher classes and add appropriate interactive activities that keep your training fresh.

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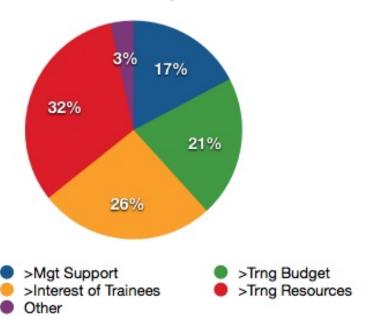
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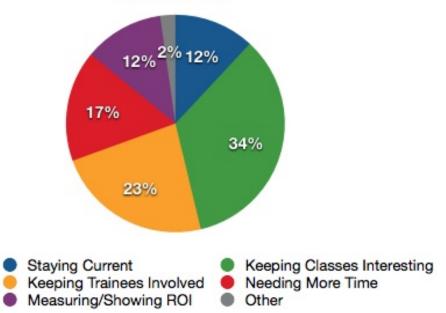
Appendix A – Survey Results

Survey distributed to approximately 3000 subscribers of "Safety Spotlight," the free ezine created and delivered by SafetyFUNdamentals. At the time this paper was written, there were 601 respondents (a 20% response rate

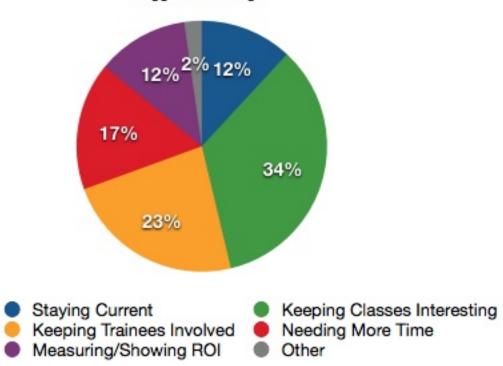








Biggest Challenge



Appendix B

Annual Training <u>Required</u> By OSHA (for topics delivered most frequently)

*(this does not mean that other training should not be done annually – only that it is not required)

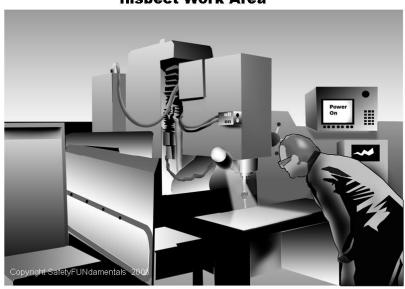
Training Topic	OSHA Standard	Annual training required for:
4,4' Methylenedianiline	1910.1050(k)(3)(i) and (ii)(A) and (4)(i)(ii)	In accordance with 1200(h)
4-Nitrobiphenyl	1910.1003(e)(5)(i)(a-h(i-ii))	Employees authorized to enter regulated areas
Acrylonitrile (Vinyl Cyanide)	1910.1045(o)(1)and(iii)(A – G)and (2)(i-ii)	Employees exposed above the Action Level, employees whose exposure are maintained below the AL by engineering and work practice controls and all employees subject to potential skin or eye contact with liquid AN
Asbestos	1910.1001(j)(7)(i-iii)(A – H)	Employees exposed to airborne concentrations of asbestos, tremolite, anthophylite, actinolite, or a combination of these mineral at or above the action level
	1915.1001(k)(9)(i-vi)(A- J)	Employees who install asbestos containing products and all employees who perform Class I – IV asbestos operations
	1926.1101(9)(i) through (viii)(A) through (e)(10)	Employees likely to be exposed in excess of a PEL and all employees who perform Class I – IV asbestos operations
Benzene	1910.1028(j)(3)(i – iii)(A-B)	Employees who work where exposures are above action level
Bloodborne Pathogens	1910.1030(g)(2)(i), (ii)(A-C),(iii-vii)(A-N), (viii-ix)(A-C)	Employees with occupational exposure
Cadmium	1910.1027(m)(4)(i-iii)(A) through (H) and (m)(4)(iv)(A) and (B)	Employees with potential exposure to cadmium
	1926.1127(m)(4)(I through (iii)(A -E)	Employees with potential exposure to cadmium
Coke Oven Emissions	1910.1029(k)(1)(i-iv)(a- e)and (k)(2)(i-ii)	Employees in regulated area
Confined Spaces	1910.146(g)(1) and (2)(i-	Rescue Personnel (simulated rescues)

	iv)(3) and (4) and (k)(1)(i- iv)	
Cotton Dust	1910.1043(i)(1)(i)(A-F) and (2)(i-ii)	Exposed employees
Ethylene Oxide	1910.1047(j)3)(i);(ii)(A-D) and (iii)(A-D)	Employees potentially exposed at or above AL
Fire Brigades	1910.156(c)(1-4)	Fire brigade members
Fire Extinguishers (Portable)	1910.157(g)(1),(2), and (4)	Employees who are expected to use portable fire extinguishers
First Aid/Medical Response	1910.151 (a)(b)	Individuals providing first aid
Fixed Extinguishing Systems	1910.160(b)(10)	Employees designated to inspect, maintain, operate or repair fixed extinguishing systems
Formaldehyde	1910.1048(n)(1)-(3)(i) and (ii)(A) and (B)(iii-vii)	Employees with exposure (unless you can prove employees are not exposed at or above 0.1 ppm)
Grain Handling Facilities	1910.272(e)(1)(i) and (ii) and (2)	Employees working in grain handling facilities
Guarding of Farm Field Equipment, Farmstead Equipment, and Cotton Gins	1928.57(a)(6(i) through (v)	All employees involved in the operation or servicing of all covered equipment with which he or she will be involved
Hazardous Waste Operations and Emergency Response	1910.120 (e)(1)(i-ii) And (2)(i- vii) and (3)(i – iv) and (4-9)	All employees responding to an uncontrolled release AND spills AND all employees exposed to hazardous substances, health hazards or safety hazards
	1910.120(p)(8)(iii)(A – C)	Employees who, in the course of their regular job duties, work with and are trained in the hazards of specific hazardous substances, and who will be called upon to provide technical advice or assistance at a hazardous substance release incident to the individual in charge, shall receive training or demonstrate competency in the area of their specialization annually. -employees exposed to health hazards or hazardous substances at TSD operations
	1910.120(q)(5)	Employees who are trained and who may be called upon to provide special technical assistance at a hazardous

		substance release incident (or otherwise demonstrate their competence)
		- Personnel expected to response to spills AND all employees exposed to hazardous substances, health hazards or safety hazards (just about everybody
Hearing Protection (Occupational Noise)	1910.95 (k)(1) – (3)(i –iii)	Employees included in the hearing conservation program
Inorganic Arsenic	1910.1018(o)(1)(i) and (ii)(A – F) and (2)(i – ii)	Employees exposed to inorganic arsenic above the action level (more often for employees with optional use of respirators)
Lead	1910.1025(1)(1)(I through (v)(A – G)(2)(i – iii)	Employees who may be exposed at or above the action level
Lead in Construction	1926.62(1)(1)(i-iv); (2)(i-viii) and (3)(i-ii)	Employees who are subject to lead exposure at or above the action level on any day
Logging	1910.266(i)(1) and (2)(i-iv); 3)(i-vi);(4) and (5)(i-iv);(6) and (7)(i-iii); (8) and (9)	CPR training annually
Mechanical Power Presses	1910.217(H)(13)(i)(A – E) and (ii)	Operators of Equipment
Personal Protective Equipment	1910.132(f)(1)(i- v);2,(3)(i-iii) and (4)	Not required annually
Respiratory Protection	1910.134(k)(1)(i – vii), (2, 3 and 5(i – iii)	Employees wearing respirators
Roll-Over Protective Structures (ROPS) for Tractors Used in Agricultural Operations	1928.51(d)	Employees who operate an agricultural tractor
Underground Construction	1926.800(g)(5)(iii-v)	Rescue teams
Vinyl Chloride	1910.1017 (j)(1)(i – ix)	Employees engaged in vinyl chloride or polyvinyl chloride operations

Appendix C: Safety Sequence for Lockout/Tag Out Training

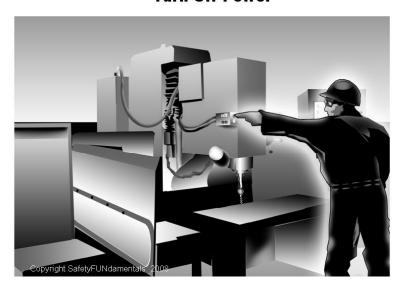
Inspect Work Area



Inform Workers in Area



Turn Off Power



Apply Lock and Tag

Power off

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Verify Power is Off



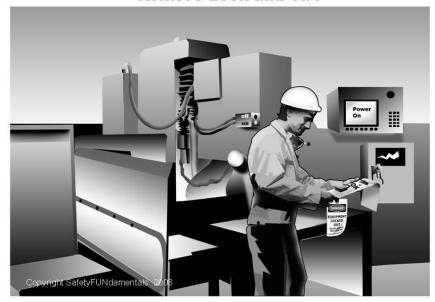
Work on Equipment



Clean Up Work Area



Remove Lock and Tag



Turn Power On



Notify Others that Work is Complete

