

## CONSTRUCTION NEWS SENSE

FACILITIES Management and Operations Center



### Managing Chemical Products on the Construction Site

See page two for an article on Working Safely



Proper handling of chemical products on a construction site promotes worker safety and prevents unnecessary compromises to the environment. Use of chemical products is commonplace on most construction sites. A few examples are solvents, sealers, and finishes. Following a few simple guidelines while using these products will ensure the safety of workers and minimize environmental damage.

When transferring chemical products from one container to another, use the right container. The new container must be compatible with the product; using another container made of the same material as the original container guarantees this. Some solvents react to Styrofoam or plastic (i.e., they dissolve them), and putting such solvents into an improper container could result in a spill causing unnecessary environmental contamination. Additionally, a violent reaction might occur when an incompatible container is used with a chemical product, and the result could be personal exposure or injury.

When transferring chemical products, always use the proper tools. Use a funnel or pump to transfer products from large containers to smaller ones. Use the proper lid or cap removal tool to

open large, original containers to avoid damaging their sealing surfaces. By properly opening an original container, it might be easily resealed. Products transferred to smaller, less unwieldy containers can be more easily managed, reducing the potential for personal exposure or a large release to the environment.

Properly label all chemical containers to minimize the risk of injury or exposure. If a product is transferred to an alternate container, the new container must always be labeled to indicate its new contents. Proper labeling will prevent the accidental combining of incompatible chemicals and eliminate "unknown" chemicals in the work place.

Proper management of chemicals used on construction sites also includes properly disposing of empty containers and excess or outdated products. At SNL/NM, an empty container may be placed into a trash receptacle if the container is completely empty and measures five gallons or less in size. For waste disposal guidance, contact your construction inspector or the Facilities Environmental Compliance Coordinator.

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## How Do you Work Safely?

A safe work environment is not enough to control all electrical hazards. You must also work safely. Safe work practices help you control your risk of injury or death from workplace hazards. If you are working on electrical circuits or with electrical tools and equipment, you need to use safe work practices.

Before you begin a task, ask yourself:

- What could go wrong?

Do I have the knowledge, tools, and experience to do this work safely?

All workers should be very familiar with the safety procedures for their jobs. You must know how to use specific controls that help keep you safe. You must also use good judgment and common sense.

Control electrical hazards through safe work practices.

- Plan your work and plan for safety.
- Avoid wet working conditions and other dangers.
- Avoid overhead powerlines.
- Use proper wiring and connectors.
- Use and maintain tools properly.
- Wear correct PPE.

### Plan Your Work and Plan for Safety

Take time to plan your work, by yourself and with others. Safety planning is an important part of any task. It takes effort to recognize, evaluate, and control hazards. If you are thinking about your work tasks or about what others think of you, it is hard to take the time to plan for safety. But, **YOU MUST PLAN**.

Planning with others is especially helpful. It allows you to coordinate your work and take advantage of what others know about identifying and controlling hazards. The following is a list of some things to think about as you plan.

- **Work with a "buddy"-Do not work alone.** Both of you should be trained in CPR. Both of you must know what to do in an emergency.
- **Know how to shut off and de-energize circuits-**You must find where circuit breakers, fuses, and switches are located. Then, the circuits that you will be working on (even low-voltage circuits) **MUST BE TURNED OFF!** Test the circuits before beginning work to make sure they are completely de-energized.
- **Plan to lock out and tag out circuits and equipment** - Make certain all energy sources are locked out and tagged out before performing any work on an electrical circuit or electrical device.



**This worker is applying a group lock-out device. The equipment cannot be re-started until all workers remove their locks.**

Working on energized ("hot") circuits is one of the most dangerous things any worker could do. If someone turns on a circuit without warning, you can be shocked, burned, or electrocuted. The unexpected starting of electrical equipment can cause severe injury or death.

Before **ANY** work is done on a circuit, shut off the circuit, lock out and tag out the circuit at the distribution panel, then test the circuit to make sure it is de-energized.

Before **ANY** equipment inspections or repairs-even on so-called low-voltage circuits-the current must be turned off at the switch box, and the switch must be pad-locked in the OFF position. At the same time, the equipment must be securely tagged to warn everyone that work is being performed. Again, test circuits and equipment to ensure they are de-energized.

No two locks should be alike. Each key should fit only one lock, and only one key should be issued to each worker. If more than one worker is working on a circuit or repairing a piece of equipment, each worker should lock out the switch with his or her own lock and never permit anyone else to remove it. At all times, you must be certain that you are not exposing other workers to danger. Workers who perform lock-out/tag-out must be trained and authorized to repair and maintain electrical equipment. A locked-out switch or feeder panel prevents others from turning on a circuit. The tag informs other workers of your action.

- **Remove jewelry and metal objects** - Remove jewelry and other metal objects or apparel from your body before beginning work. These things can cause burns if worn near high currents and can get caught as you work.
- **Plan to avoid falls** - Injuries can result from falling off scaffolding or ladders. Other workers may also be injured from equipment and debris falling from scaffolding and ladders.

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