



Chapter 3: General Agricultural Safety Procedures



TABLE OF CONTENTS

- 1.0 University of Wisconsin-Madison Smoking Policy**
- 2.0 Feed Mill & Grain Storage**
- 3.0 Anhydrous Ammonia**
- 4.0 Irrigation Safety**
- 5.0 Greenhouse Safety**



1.0 University of Wisconsin-Madison Smoking Policy

The University of Wisconsin-Madison has adopted a SMOKE FREE policy. This policy supersedes individual safety policies that have been issued previously. The University policy states:

“Effective April 8, 1991, all buildings and vehicles, regardless of location, which are owned or leased by the University of Wisconsin-Madison, will be entirely smoke free.”

Although in some instances this does not apply to outside work, this policy is strongly encouraged for its safety implications. For further information, refer to the April 8, 1991 memorandum.

2.0 Feed Mill and Grain Storage

2.1 General Rules

- Turn off all power and perform lock-out/tag-out procedures before adjusting or repairing equipment such as changing the screen on the hammer mill, opening pellet mill, rethreading sewing machine or cleaning mixer.
- When making feed, run exhaust fan at the start of loading the mixer and until the feed is unloaded from mixer to remove dust.
- Wear all required personal protective equipment (PPE) including hearing protection, as needed.
- Use fiberglass rods or rubber mallet to pound on sides of bins to prevent sparks.
- Only trained and authorized personnel should work on electrical equipment.
- When blowing down equipment, employees must wear all appropriate PPE.

2.2 Grain Handling & Bins

- Turn off power and perform lockout/tagout procedures before adjusting or repairing equipment such as dryers, legs or conveyors.
- At all times guards, covers, shields and doors must be in place and secure before operating any equipment.
- Two people must be present with one at entry point of bin before entering a bin. Note: When entering confined spaces, all confined space entry procedures must be followed.
- The person entering a bin with more than 5 feet depth of feed or grain must wear a safety harness.
- Stay on outside wall edge of grain if entering a bin with grain more than 5 feet deep.
- If a gas leak is detected use extreme caution, notify your supervisor and your local gas or electric utility company.

Additional resources on grain handling include:

[OSHA Grain Handling Overview](#)

[OSHA: Worker Entry into Grain Storage Bins](#)

3.0 Anhydrous Ammonia

3.1 Transporting

- Do not exceed 35 mph when transporting nurse tanks.
- You must have a hazardous waste shipping document with you when transporting nurse tanks.
- You must attach safety chains when transporting nurse tanks.
- Do not pick up a tank without a functioning emergency water tank installed.
- Make sure the emergency water tank is full and valves are shut.

3.2 Application

- Before switching tanks, bleed the lines to relieve pressure in the hoses.
- When attaching hoses, always wear the proper PPE including:
 - full mask respirator with appropriate filters
 - coveralls
 - anhydrous gloves
- Ensure there is adequate ventilation when working with hoses.
- Check your anhydrous tank to see if the 5-gallon emergency water tank is filled and operating.
- If you are exposed to anhydrous ammonia, seek medical attention immediately and flush the exposed area with water for 15 minutes.

4.0 Irrigation Safety

Irrigation systems are used on many of the Agricultural Research Stations (ARS) for both research and general crop production in addition to greenhouse applications. Numerous types of irrigation systems are being used including center pivot, linear, traveling gun, solid set and trickle systems. Irrigation systems often operate under significant water pressure levels and with some type of power source driving mechanisms with pinch points. Each system has its own unique operating and safety procedures. This section outlines general irrigation safety practices. All employees involved with irrigation must be trained on the proper and safe use of the specific type(s) of irrigation equipment to be operated.

4.1 General Irrigation Safety Practices

- Inspect each system before use and perform maintenance at required intervals.
- Use caution while in the immediate area of any system being operated, especially near power and water supply connection points.
- Never attempt servicing while the irrigation system is under pressure or operational load. Always shut down the system and disconnect before working on the system.
- Do not attempt to adjust sprinklers while operating.
- Use caution when irrigating near power sources or supply boxes. Ensure the system is properly grounded and test periodically.
- Never irrigate over public roads.
- Always keep safety shields in place.
- Make sure power sources and water supply lines are set up properly.
- Make sure irrigation system travel or drive lines are unobstructed.
- Be cautious for both overhead and underground lines.
- Be cautious around irrigation systems during severe weather. Leave the area during lightning storms.
- Observe all specific system guidelines for transporting portable systems.
- Keep children and spectators away from irrigation systems.
- Observe all specific system guidelines for winterization procedures.

5.0 Greenhouse Safety

5.1 General Greenhouse Safety

Research greenhouses, located at the various ARS stations throughout the state, have some unique safety concerns that may make them different than other research facilities. Pesticide safety is probably the most important issue with any greenhouse. Other safety concerns are the potential for electrical shock or electrocution in a wet and humid environment, slips and falls, accidents with ladders and the potential of mercury exposure if the greenhouse has high intensity discharge lighting.

5.2 Pesticide Safety in Greenhouses

There are two important and comprehensive laws dealing with pesticide safety in greenhouses. One of these laws is called *The Worker Protection Standard* (WPS). The WPS is a federal law dealing with the responsibility of greenhouse managers to provide a safe and informed working environment for people who work at facilities where pesticides are used. More information on the WPS can be found in the [Pesticide Worker Protection Standard – “How to Comply” Manual](#). The manual explains the obligations of the greenhouse managers and the rights/obligations of greenhouse workers or researchers. If you are a manager of a research greenhouse at an ARS, you must comply with all the requirements of the WPS including the required training.

The other important safety concern regarding pesticides and greenhouses is the *Wisconsin Certified Pesticide Applicators Program*. If you apply pesticides at any of the research greenhouses, you should train to become a Commercial Applicator and become certified in the appropriate category. It is strongly recommended that all ARS employees who mix, load and apply pesticides have a Commercial Applicator certification and be licensed. You can get more information on becoming a certified pesticide applicator by contacting the [Wisconsin Department of Agriculture](#) or the [University of Wisconsin– Pesticide Applicator Training Program](#).