Emergency Procedures

In case of uncontrolled release, severe injury, fire or explosion.

If you are not in immediate danger from gas, fire or explosion:

CALL: ........................................ 911. An alarm may have gone out to the Fire Department, but call anyway.

REPORT: 1. Say “Liquid sodium hydroxide release Emergency”
2. Give your name
3. Give your building and room number location
4. Give the phone number you are calling from
5. Describe the emergency:
   a. liquid release result from__________________?
   b. Was there a fire or explosion?
   c. Are there any injuries?
   d. If so, how many?
6. By radio notify central dispatch of the problem.
7. Central dispatch will notify EH&S and University Police.

If you have to evacuate due to fire or explosion, do the above from a safe location. If you are contaminated get to the emergency eye wash/shower.

Emergency First Aid Measures

Eye Contact
- First rinse with plenty of cold water for several minutes. Continue without stopping for at least 15 minutes, occasionally lifting upper and lower lids. Seek medical attention immediately.

Skin Contact
- Quickly remove contaminated clothing. Immediately wash skin with large amounts of water. Seek medical attention immediately.

Respiratory
- Remove the victim from the site of the release. Prop up the person in a half-upright position.
- Begin rescue breathing if breathing has stopped, and CPR if heart activity has stopped, but make sure you do not contaminate yourself.
- Transfer the victim promptly to a medical facility.

Ingestion
- Rinse mouth. Do not induce vomiting. Give plenty of water to drink and seek medical attention immediately.
Program Contact List
Jim Butler: Plumbing Shop Supervisor. Responsible for sodium hydroxide system for onsite wells 359-6561 Cell 720-9870
Bob Heston: Plumbing Shop Lead. Responsible for sodium hydroxide system for onsite wells 359-6561, Cell 979-8653
Chad Johnson; Environmental Health and Safety, 359-6455 or Cell 290-3510
John Henry; Facilities Engineer, 359-4205
Rozell Plant Operations, 359-6460
Cheney Fire Department, 498-9291
University Police, 535-9233

General Work Procedures

All persons working with sodium hydroxide will attend awareness training and specific training on the sodium hydroxide system.

Employees working on the sodium hydroxide system under normal conditions shall have the following personal protective equipment as a minimum: Impervious gloves shall be worn whenever working on sodium hydroxide. Long sleeve shirts, long pants and chemical resistant apron/ smock/ lab coat will be worn when working on the sodium hydroxide systems or changing out drums. Proper footwear consisting of chemically impervious boots or boot coverings will be worn. Face shields will be worn when working with sodium hydroxide or sodium hydroxide contaminated equipment. The greatest danger is mist or droplets. A respirator will afford protection under normal conditions should a small amount of sodium hydroxide be released. Those who wear a respirator must be medically approved and fit tested.

Respiratory protection shall be worn under the following conditions:
✔ If the exposure limit (2mg/m3) is exceeded (or when working with a small spill) and engineering controls are not feasible, a full-face piece particulate respirator with an approved canister for sodium hydroxide will be worn.

All preventive maintenance will be in accordance with manufacture specifications and industry standards. Repairs will be conducted by the plumbing shop or a qualified contractor.

The sodium hydroxide room/area shall be equipped with a fan that draws from the drum head area and exhausts to a safe area. In order to have an air change, make-up air shall be drawn in at the lower part of the room/area. The switch to control the ventilation fan shall be located outside the room by the entry door.

Minor Spill Cleanup
If small amounts of sodium hydroxide are spilled (less than 2 gallons) use a caustic neutralizer. Employees will not conduct spill cleanup alone. Stabilize the area if possible and contact another trained employee or contact Environmental Health and Safety (EH&S). For any location where sodium hydroxide will be used for the water system, a spill kit will be available that will have the capacity to neutralize 2 gallons of spilled sodium hydroxide. These kits will react slowly with the
sodium hydroxide to limit reactions; never-the-less some heat and gas will often evolve. All safety precautions and personal protective equipment will be used during a cleanup. For larger spills (full drum failure) use the emergency procedures above. Contact EH&S for information on spill cleanup kits.

**Eye Wash Stations and Emergency Shower**
Eyewash stations and an emergency shower will be available outside or away from the sodium hydroxide area. The shower/eye wash station must be within 10 feet of the sodium hydroxide area but situated so that water cannot flow or spray into the sodium hydroxide area.

**Access and Labeling**
Access Keys will be located in the building Knox box, or housed in the Rozell Heating Plant. Plumbers will also have keys issued to them. Cheney Fire Department will maintain their own key or use the buildings Knox Box. All sodium hydroxide rooms, buildings, and areas shall be posted with a danger sign, see Figure 1 for an example.

![Sodium Hydroxide MSDS](attachment: Sodium Hydroxide MSDS)

**FIGURE 1**

**Reactivity and Physical Concerns with Sodium Hydroxide**

Incompatible with water, acids, flammable liquids, organic halogens, metals such as aluminum, tin and zinc, and nitromethane. The substance is a strong base; it reacts violently with acid and is corrosive in moist air to metals like zinc, aluminum, tin and lead forming combustible/explosive hydrogen gas. Reacts with ammonium salts to produce ammonia, causing fire hazard. Attacks some forms of plastics, rubber or coatings. Rapidly absorbs carbon dioxide and water from air. Contact with moisture or water may generate sufficient heat to ignite combustible substances.


**Attachments:**
Sodium Hydroxide MSDS