


| | | | | |
|---|--|----------------------|--|-------------|
|  | Big Ox Energy - Riceville, LLC Safety Management System | | RIC.SAFE.POL.140-010. FlammableCombustibleLiquids | |
| | | | Initial Issue Date | 8/18/2017 |
| Flammable and Combustible Liquids | | | Revision Date: | |
| | | | Next Revision Date: | 8/18/2018 |
| Preparation: Safety Manager | Authority: President | Issuing Dept: Safety | Page: | Page 1 of 4 |

Purpose and Scope

The purpose of Big Ox Energy – Riceville, LLC’s Flammable and Combustible Liquids Program is to ensure the safety of our employees by establishing appropriate handling and storage procedures for each location where these substances are handled or stored. Proper Storage and use of flammable liquids can significantly reduce the possibility of accidental fires and injury to employees. To minimize risk to life and property, the requirements of NFPA 30 & 321 and OSHA Standard 1910.106 have been implemented.

This program outlines responsibilities for all Big Ox Energy - Riceville, LLC employees, proper storage and use methods and required employee training. All employees are required to follow the procedures outlined in this program. Any deviations from this program must be immediately brought to the attention of the Plant Manager.

Program Responsibilities

Big Ox Energy - Riceville, LLC is responsible for providing equipment and resources necessary to implement this program, and for ensuring that the provisions in this program are being followed by the Plant Manager.

The Safety Department is responsible for the following:

- Ensuring the plant manager has a copy of the program
- Scheduling employee training and ensuring new hires are trained on the program
- Providing outside contractors with information on Big Ox Energy – Riceville, LLC’s machine safeguarding program
- Reviewing and updating the program and materials as needed
- Updating the company online SDS records

The Plant Manager is responsible for the following:


- Ensuring that all current and new substances are reviewed and categorized within this program.
- Ensuring that only the minimum amount of flammable liquids required is kept on hand
- Maintaining records pertaining to the program
- Monitor for proper use and storage
- Maintaining an accurate inventory

Supervisors are responsible for:

- Monitor for proper use and storage
- Stopping and correcting any unsafe work practice or condition immediately
- Notifying the Plant Manager when changes in processes increase the risk of injury or introduce a new hazard
- Ensuring employees comply with all safe work practices outlined in this program

Employees are responsible for:

- Follow all storage and use requirements
- Immediately report spills to supervisors
- Reporting deficiencies to supervisors
- Complying with all procedures and safe work practices outlined in this program

| | | | |
|---|--|--|-------------------|
|  | Big Ox Energy - Riceville, LLC Safety Management System | RIC.SAFE.POL.140-010. FlammableCombustibleLiquids | |
| | | Initial Issue Date | 8/18/2017 |
| Flammable and Combustible Liquids | | Revision Date: | |
| | | Next Revision Date: | 8/18/2018 |
| Preparation: Safety Manager | Authority: President | Issuing Dept: Safety | Page: Page 2 of 4 |

Engineering Controls

- Properly designed flammable storage areas
- Ventilated Storage areas
- Grounding Straps on Drums and dispensing points

Administrative Controls

- Designated storage areas
- Limiting amount of flammable liquids in use and storage
- Employee Training
- Limited & controlled access to bulk storage areas
- Posted Danger, Warning and Hazard Signs

Definitions

Flammable Liquid - a liquid with a flashpoint below 100oF

Class IA - flashpoint below 730F and boiling point below 1000F

Class IB - flashpoint below 730F and boiling point above 1000F

Class IC - flash at or above 730F and below 1000F

Combustible Liquids - a liquid having a flash point at or above 1000 F.

Class II Combustibles - Flashpoint above 1000F and below 1400F


Class III Combustibles - Flashpoint at or above 1400F

Subclass IIIA - flashpoint at or above 1400F and below 2000F

Subclass IIIB - flashpoint at or above 2000F

Storage & Usage of Flammable Liquids

- Storage of Flammable liquids shall be in NFPA approved flammable storage lockers or in low value structures at least 50 feet from any other structure. Do not store other combustible materials near flammable storage areas or lockers
- Bulk drums of flammable liquids must be grounded and bonded to containers during dispensing
- Portable containers of gasoline or diesel are not to exceed 5 gallons
- Safety cans used for dispensing flammable or combustible liquids shall be kept at a point of use.
- Appropriate fire extinguishers are to be mounted within 75 feet of outside areas containing flammable liquids, and within 10 feet of any inside storage area for such materials.
- Storage rooms for flammable and combustible liquids must have explosion-proof light fixtures
- Bulk storage of gasoline or diesel are kept in above ground tanks. Tank areas are diked to contain accidental spills. Tanks shall be labeled IAW NFPA guidelines. All tank areas shall be designated no smoking - no hot work - no open flame areas.
- No flames - hotwork or smoking is be permitted in flammable or combustible liquid storage areas.
- The maximum amount of flammable liquids that may stored in a building are:
 - 20 gallons of Class IA liquids in containers
 - 100 gallons of Class IB, IC, II, or III liquids in containers
 - 500 gallons of Class IB, IC, II, or III liquids in a single portable tank.
- Flammable liquid transfer areas are to be separated from other operations by distance or by construction having proper fire resistance.
- When not in use flammable liquids shall be kept in covered containers.

| | | | | |
|---|--|----------------------|--|-------------|
|  | Big Ox Energy - Riceville, LLC Safety Management System | | RIC.SAFE.POL.140-010. FlammableCombustibleLiquids | |
| | | | Initial Issue Date | 8/18/2017 |
| Flammable and Combustible Liquids | | | Revision Date: | |
| | | | Next Revision Date: | 8/18/2018 |
| Preparation: Safety Manager | Authority: President | Issuing Dept: Safety | Page: | Page 3 of 4 |

- Class I liquids may be used only where there are no open flames or other sources of ignition within the possible path of vapor travel.
- Flammable or combustible liquids shall be drawn from or transferred into vessels, containers, or portable tanks within a building only through a closed piping system, from safety cans, by means of a device drawing through the top, or from a container or portable tanks by gravity through an approved self-closing valve. Transferring by means of air pressure on the container or portable tanks shall be prohibited.
- Maintenance and operating practices shall be in accordance with established procedures which will tend to control leakage and prevent the accidental escape of flammable or combustible liquids. Spills shall be cleaned up promptly.
- Combustible waste material and residues in a building or unit operating area shall be kept to a minimum, stored in covered metal receptacles and disposed of daily.
- Rooms in which flammable or combustible liquids are stored or handled by pumps shall have exit facilities arranged to prevent occupants from being trapped in the event of fire.
- Inside areas in which Class I liquids are stored or handled shall be heated only by means not constituting a source of ignition, such as steam, hot water or forces central systems located away from the area.
- Each task that requires the use of chemicals should be evaluated to determine the potential hazards associated with the work. This hazard evaluation must include the chemical or combination of chemicals that will be used in the work, as well as other materials that will be used near the work.
- Chemicals will not be stored in the same refrigerator used for food storage. A label on the door must appropriately identify refrigerators used for storing chemicals.
- The separation of chemicals (solids or liquids) during storage is necessary to reduce the possibility of unwanted chemical reactions caused by accidental mixing. Explosives should be stored separately outdoors.

Employee Training


All employees who operate machines as part of their job will be trained on:

- Identifying the hazards associated with the machines they work with
- The written procedures for each machine they operate
- Types of safeguards and how they provide protection from hazards
- How to use the safeguard
- How and under what circumstances the safeguarding can be removed
- What to do if a safeguard is damaged, missing or is not providing adequate protection
- The types of personal protective equipment (PPE) that should be worn around their assigned machines

Retraining

Retraining will be conducted for any employee if:

- There is a change in assignment that involves using a different machine
- There is a change in the machine, equipment or processes that presents new hazards
- There is a change in the machine safeguarding procedures
- The supervisor has reason to believe or determines through inspection or observation that an employee lacks sufficient knowledge of the safeguarding procedures

| | | | | |
|---|--|----------------------|--|-------------|
|  | Big Ox Energy - Riceville, LLC Safety Management System | | RIC.SAFE.POL.140-010. FlammableCombustibleLiquids | |
| | | | Initial Issue Date | 8/18/2017 |
| Flammable and Combustible Liquids | | | Revision Date: | |
| | | | Next Revision Date: | 8/18/2018 |
| Preparation: Safety Manager | Authority: President | Issuing Dept: Safety | Page: | Page 4 of 4 |

All training records will be maintained in IndustrySafe and retained by the Safety Office.

Periodic Program Review

The Safety Team will conduct an annual review to assess the program’s effectiveness. The review will consider any new substances, changes in processes, facility layout changes and the cost and frequency of injuries.

All standard operating procedures and methods will be reviewed annually by the Safety Team. If any inadequacies are identified, the Safety Team will take all necessary steps to update the procedure or safeguarding method.