

## **North Carolina Addendum to PERC Operations and Maintenance Handbook for LP-Gas Bulk Storage Facilities**

### **Notice and Disclaimer Concerning Liability**

The Notice and Disclaimer Concerning Liability provided on page i of the Operations and Maintenance Handbook for LP-Gas Bulk Storage Facilities published by PERC (Propane Education and Research Council) should be considered to apply to this addendum as well. The NC Propane Gas Association and the NC Dept. of Agriculture and Consumer Services disclaim any liability and should be considered to be included in any disclaimers stated on the named page(s).

### **Acknowledgements**

This addendum was developed by a joint task force consisting of the following members:

David Parker, Parker Gas Co., President, NCPGA  
Cyndi Kibler, Professional Propane Services, Treasurer, NCPGA  
Donald Godfrey, James Oxygen & Supply, Chairman of NCPGA Safety Committee  
Greg Eanes, Alamance Oil Co., and District Director for NCPGA  
Glenn Durham, Freeman Gas  
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### **Instructions**

This addendum is designed to be used with the Operations and Maintenance Handbook for LP-Gas Bulk Storage Facilities published by PERC (Propane Education and Research Council). The PERC-developed Operations and Maintenance Handbook is available for download at:

[http://www.propanesafety.com/uploadedFiles/Safety/Compliance/Updated%20OM%20June\\_2009\\_FINAL\\_FillInForms.pdf](http://www.propanesafety.com/uploadedFiles/Safety/Compliance/Updated%20OM%20June_2009_FINAL_FillInForms.pdf)Section 3-Emergency Procedures Plan

If you prefer to order a printed copy or CD please go to [www.propanemarc.com](http://www.propanemarc.com)

The majority of information required by NFPA 58 to be included in the Operating Procedures has been done by the authors, however, there are certain items that an individual marketer must complete in this portion to make this document appropriate for their bulk plant(s). These pages should be filled in for each bulk plant location. The pages which need to be completed are:

Page 10: Facility information, company representative's contact information, and local emergency management contact information

Page 12: A map of the bulk plant should be included. Use the example on this page as a guide.

Page 16: A list of ignition sources, their location and the controls in place should be filled in. Use the list of corrective actions on pages 14 and 15 as a guideline for potential sources of ignition.

Page 17: This information should be filled in for each bulk tank in your plant. Make copies if you need additional sheets. If the data plates are illegible or missing, and the tank is operating under the guidelines issued by the NC Dept. of Agriculture, it should be noted on the form.

Page 23: The chart on this page should be filled out to notate the appropriate training for actions performed in your bulk plant. This list may vary from company to company depending on the functions of your employees, and such factors as whether the plant is in a remote location, etc.

Pages 94 and 95: These should be filled out as the maintenance items are performed.

Page 97-114: Maintenance and inspection checklist-this section should be completed on an recurring basis. NFPA 58 does not specify a definite time limitation for some of the items on this list. The marketer should specify a schedule for those items and follow that schedule. This schedule should not prevent needed maintenance items if they occur between inspection cycles. The first time you use this checklist, be prepared to spend additional time on it, as some items will require calculations, inspection of items not normally handled (such as relief valves on top of your bulk tanks), and inspection of details (such as the pressure settings on hydrostatic relief valves) that need not be verified again unless the piping or tanks are changed or new equipment is added. The Department of Agriculture is also expecting to see the signature of the person doing these inspections. A signature, date, and written statement that all applicable items have been checked should suffice. There is space for this on the bottom of page 99.

Finally, NCPGA's task force for this project agreed that Section 3, Emergency Procedures Plan of the PERC Operations and Maintenance Handbook was inadequate. The following is provided as a replacement for this section. This section is intended for use by a typical propane marketer. Industrial plants, particularly those with their own fire brigade, may want to substitute their own procedures for this section.

## **Alternate Section 3 for Propane Marketers**

### **General Procedures for Emergency Shutdown Equipment**

1. Be familiar with the location and operation of emergency shutdown controls and devices.
2. Examine transfer bulkheads, emergency shutoff valves (ESVs), and operators such as cables and pneumatic devices that operate ESVs to ensure all are in good working order. Never disable an ESV or internal valve.
3. Check the location and condition of plant fire extinguishers as required.

### **Propane leak or fire (The order of items in this list may be adjusted depending on the exact circumstances of the accident being responded to).**

If there is an uncontrolled leak or fire, remain calm, and –if it’s safe–do the following:

1. If there is an emergency shutdown device, activate it.
2. Immediately eliminate the sources of ignition.
3. Shut off the electrical power at the main power source.
4. A call to 911 (or other local emergency responders) should be made at the first reasonable opportunity.
5. Contact your supervisor from a safe location.

Note: If you are unsure about what to do in the event of a fire, or if there is any danger of personal injury, do not approach the fire. Evacuate the area and wait for fire-fighting personnel to arrive.

### **Fire Extinguisher Use**

Fire extinguishers and propane facilities are critical. They can keep a small incident from becoming a major accident with extensive property damage and personal injury.

Important points to remember about fire extinguishers:

1. NFPA 58 requires at least one fire extinguisher be easily accessible at the bulk plant.
2. Employees must be trained to use fire extinguishers when they are first hired and each year after that.
3. A propane fire should not be extinguished until the leak is controlled. Fire extinguishers are not intended to put out a propane fire and have a limited application area. They are effective for small fires only, such as those involving combustible materials that could cause a propane fire. They’re also valuable to creating an escape route for people in the area.
4. Fire extinguishers must be inspected annually for serviceability, and recharged if necessary. Fire extinguisher companies or the local fire department conduct these inspections.
5. NFPA 10 also requires monthly visual inspections of all fire extinguishers. This includes making sure each extinguisher is fully charged and not due for an annual inspection.

**How to use the Fire Extinguisher (for non-propane related fires)**  
(Remember PASS)

**P**-Pull the pin. This will allow you to discharge the extinguisher.

**A**-Aim at the base of the fire. If you aim at the flames (which is frequently the temptation), the extinguishing agent will fly right through and do no good.

**S**-Squeeze the top handle or lever. This depresses a button that releases the pressurized extinguishing agent in the extinguisher.

**S**-Sweep from side to side until the fire is completely out. Start using the extinguisher from a safe distance away, then move forward. Once the fire is out, keep an eye on the area in case it re-ignites.