



Distillation Column Troubleshooting



Course Objectives

1. Describe how feed rate change can affect column profile.
2. Describe the following operating problems:
 - i. Overloading – mechanical causes.
 - ii. Flooding – How to identify flooding in a distillation column.
 - iii. Flooding – How to avoid and respond to flooding.
 - iv. Temperature problems – early detection of temperature profile changes.
 - v. Controlled variable is not controlling process.
 - vi. Burping
3. Describe the impact of reflux on product specification.
4. Describe the potential problems associated with reboiler operation.



Key Terms (Define the following)

burping - _____

flooding - _____

overloading - _____



Questions

1. _____ occurs when the vapor flow up through the column is too low to prevent liquid from flowing through the holes in a tray.
 - Overloading
 - Flooding
 - Burping
 - Weeping

2. Weeping can be indicated by a significant pressure drop in the column and reduced product separation.
 - True
 - False

3. _____ typically results from heat loss in a column.
 - Overloading
 - Dumping
 - Weeping
 - Flooding