



# N643: Sulphur Recovery

Instructor(s): Edward Wichert

1 Day

Competence Level:  
Awareness



Classroom Course

## Summary

This one-day course will provide participants with a thorough review of the design, operation and optimization of the modified Claus sulphur recovery process, including a review of process chemistry, process equipment, operating problems, catalyst deactivation, tail gas technologies, and new technologies related to the sulphur recovery industry, such as degassing and pelletizing. The presentation is designed for personnel involved in the design or operation of sour natural gas processing plants and sulphur recovery facilities.

## Learning Outcomes

Participants will learn to

- Describe the different pieces of equipment in a modified Claus sulphur recovery train
- Select the mode of operation between straight through or split flow
- Identify the factors affecting the recovery efficiency of sulphur
- Discuss the different methods of reheating the process gas stream between catalytic stages
- Understand the processes of deactivation of the catalyst
- Review the different methods of process enhancements
- Describe the different tail gas clean-up methods
- Determine the density of liquid sulphur
- Calculate the recovery efficiency of sulphur of the sulphur plant

## Duration and Training Method

One classroom day providing .8 CEU (Continuing Education Credits) or 8 PDH (Professional Development Hours)

## Who Should Attend

All sour natural gas has to be treated for the removal of virtually all H<sub>2</sub>S before it can be distributed to a consumer. The course is designed to benefit junior design engineers, sour plant supervisors and operators, and persons supplying materials and solvents to the sour gas industry.

## Course Content

### Course Agenda

- Sulphur conversion chemistry
- Modified Claus Plant process equipment
- Mode of operation related to H<sub>2</sub>S in feed gas
- Factors affecting sulphur recovery
- Process gas reheat methods
- Sulphur plant enhancements
- Tail gas cleanup methods
- Sulphur property estimation
- Sulphur degassing methods



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- Sulphur pelletizing methods
  - Sulphur purity specifications