

2009 TAPPI Introduction to Kraft Pulping Course

August 3-4, 2009

Kemira North American Headquarters, Kennesaw, GA 30144 USA

Tentative Schedule

MONDAY, AUGUST 3

8:00 a.m. – 8:50 a.m.

Wood and Fiber Raw Materials

- Hardwoods and softwoods
- Wood properties
- Fiber properties

9:00 a.m.-9:50 a.m.

Preparation of Wood and Chips for Pulping

- Debarking
- Chipping
- Screening
- Storage and recovery
- Chip quality

10:00 a.m.-10:50 a.m.

Overview of Kraft Pulping

- Terminology
- Chemicals
- Pulp properties and tests
- Chemical tests

11:00 a.m.-11:50 a.m.

Kraft Digesters

- Batch
- Continuous

12:00 p.m.-12:50 p.m.

Lunch on Your Own

1:00 p.m.-1:50 p.m.

Kraft Pulping Chemical Reactions

- Delignification
- Cellulose
- Hemicelluloses
- Extractives

2:00 p.m.-2:50 p.m.

Kraft Pulping variables

- AA, EA
- H Factor
- Pulp quality for different grades

3:00 p.m.-3:50 p.m.

Trends in Kraft Pulping

- Displacement cooking
- MCC cooking
- Lo-solids
- Isothermal
- AQ
- Polysulfide

4:00 p.m.-4:50 p.m.

Class Exercise

5:00 p.m.-6:00 p.m.

Reception

TUESDAY, AUGUST 4

8:00 a.m.-8:50 a.m.

Kraft Pulping Review

9:00 a.m.-9:50 a.m.

Pulp Processing Overview

- Oxygen delignification
- Fiberizing
- Washing
- Screening and Cleaning

10:00 a.m.-10:50 a.m.

Brown Stock Washing

- Displacement
- Diffusion
- Equipment
- Variables

11:00 a.m.-11:50 a.m.

Screening and Cleaning

12:00 p.m.-12:45 p.m.

Lunch on Your Own

1:00 p.m.-1:50 p.m.

Overview of Bleaching

- Sequences
- History
- ECF & TCF

2:00 p.m.-2:50 p.m.

Oxygen Delignification

- Equipment
- Variables
- Reactions

3:00 p.m.-3:50 p.m.

Caustic Extraction

- E, Eo, Ep
- Variables

4:00 p.m.-4:45 p.m.

Other Bleaching Sequences and Trends in Bleaching

- Ozone
- Enzymatic
- Other

4:45 p.m.-5:00 p.m.

Class Wrap Up and Evaluation