



OPERATOR TRAINING SEMINAR CHICAGO, ILLINOIS, USA

(ALL TIMES CDT)

TUESDAY, OCTOBER 24TH, 2023

- 7:30 AM** **BREAKFAST (PROVIDED) AND REGISTRATION**
- 8:00 AM** **INTRODUCTION TO PSRI AND ITS TECHNICAL PROGRAMS**
- 8:15 AM** **INTRODUCTION AND OVERVIEW**
- 1. INTRODUCTION, TERMINOLOGY, AND PARTICULATE PROPERTIES**
 - 2. FLUIDIZATION REGIMES AND TRANSITIONS**
- 10:00 AM** **BREAK**
- 10:15 AM** **LABORATORY 1 – PARTICLE CHARACTERIZATION**
- PARTICLE SAMPLING AND RIFFLING**
 - PARTICLE SIZE ANALYSIS USING SYMPATEC HALOS 3**
 - LOOSE BULK DENSITIES AND ANGLE OF REPOSE MEASUREMENT**
 - MEASUREMENT OF LOOSE AND TAPPED BULK DENSITIES**
 - MICROSCOPE IMAGES**
 - FLOW VISUALIZATION OF COLORED BEADS IN 12-IN DIA SEMICIRCULAR FLUIDIZED BED**
- 12:00 PM** **LUNCH (PROVIDED)**
- 12:45 PM** **INTRODUCTION AND OVERVIEW (CONTINUED)**
- 3. HYDRODYNAMICS OF FLUIDIZED BEDS**
- 1:15 PM** **GAS DISTRIBUTORS (GRIDS)**
- 3:00 PM** **BREAK**
- 3:15 PM** **LABORATORY 2 – FLUIDIZED BED OPERATION IN CLEAR FLUIDIZED BEDS**
- FLUIDIZATION OF GROUP A SOLIDS (FCC CATALYST)**
 - PROPER BED START-UP AND SHUTDOWN**
 - CYCLONE/DIPLEG VISUALIZATION**
- 5:00 PM** **ADJOURN**

7:30 AM	BREAKFAST (PROVIDED)
8:00 AM	OVERVIEW OF INDUSTRIAL APPLICATIONS
9:00 AM	ENTRAINMENT
10:00 AM	BREAK
10:15 AM	CYCLONE DESIGN AND OPERATION
10:45 AM	LABORATORY 3 - FLUIDIZED-BED OPERATION IN CLEAR FLUIDIZED BEDS <ul style="list-style-type: none">• FLUIDIZATION OF GROUP B SOLIDS• PROPER BED START-UP AND SHUTDOWN• CYCLONE/DIPLEG VISUALIZATION
12:00 PM	LUNCH (PROVIDED)
1:00 PM	CYCLONE DESIGN AND OPERATION (CONTINUED)
3:00 PM	BREAK
3:15 PM	LABORATORY 4 – VIEW OPERATION OF 2.75-FT AND 5-FT DIAMETER SEMICIRCULAR FLUIDIZED BEDS <ul style="list-style-type: none">• OPERATION WITH FCC CATALYST• CONICAL DISTRIBUTORS• PROPER START• BUBBLING AND TURBULENT REGIMES• VISUALIZATION OF CYCLONE/DIPLEG OPERATION
5:00 PM	ADJOURN

7:30 AM	BREAKFAST (PROVIDED)
8:00 AM	STANDPIPES
10:00 AM	BREAK
10:15 AM	LABORATORY 5 – VIEW OPERATION OF VERTICAL STANDPIPE UNIT WITH FCC CATALYST <ul style="list-style-type: none">• EFFECT OF AERATION (OVER AND UNDER AERATION)• HOW TO START-UP• PRESSURE BUILD
12:00 PM	LUNCH
1:00 PM	PNEUMATIC CONVEYING AND RISERS
2:45 PM	BREAK
3:00 PM	LABORATORY 6 – VIEW OPERATION OF 8-IN DIAMETER CIRCULATING FLUIDIZED BED UNIT (RISER) <ul style="list-style-type: none">• HOW TO START-UP A CIRCULATING FLUIDIZED BED• RISER FLOW VISUALIZATION• VIEW OPERATION OF CYCLONE(S)• VIEW OPERATION OF PRIMARY AND SECONDARY CYCLONE DIPLEGS
5:00 PM	ADJOURN