

HANDOUT 2.1

R.N. Shreve and J.A. Brink, *Chemical Process Industries*, 4th ed., McGraw-Hill, New York, 1977.

PARTIAL LIST OF INDUSTRIES THAT USE FLUID/PARTICLE PROCESSES:

| | |
|----------------------------|--------------------------|
| water conditioning | environmental cleanup |
| coal chemicals | glass industry |
| industrial carbon | phosphorous production |
| ceramics | potassium production |
| paints | nuclear industries |
| explosives and propellants | food and food processing |
| agriculture | sugar and starch |
| fermentation | wood chemicals |
| pulp and paper | plastics |
| synthetic fibers | rubber industries |
| petrochemicals | pharmaceuticals |

LIST OF OPERATIONS FOUND IN THE EXAMPLE INDUSTRIAL PROCESSES:

| | |
|------------------------|-------------------------|
| crushing and screening | oven bin |
| conveyor | storage bins |
| vibrating feeders | classifiers and screens |
| flotation cells | pebble mills |
| thickeners | filters |
| dryers | pneumatic conveying |
| grinding mills | slurry mixers |
| rotary kiln | dust collector |
| classifiers | cyclone separators |
| screw conveyors | cake washing |
| leaching | crystallizers |
| digesters | beaters |
| fourdrinier | |