

Date \_\_\_\_\_ 20\_\_\_\_

Company \_\_\_\_\_

Contact \_\_\_\_\_

Title \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ St \_\_\_\_\_ Zip \_\_\_\_\_

Country \_\_\_\_\_

Phone \_\_\_\_\_

Mobile \_\_\_\_\_

Fax \_\_\_\_\_

E-mail \_\_\_\_\_

How did you learn about PAUL O. ABBE? \_\_\_\_\_

### DRYING EXPERIENCE (describe your present drying method)

Type of Dryer & Size \_\_\_\_\_

How is this method performing? \_\_\_\_\_

### BATCH CAPACITY

by Volume \_\_\_\_\_  $\square$  ft<sup>3</sup> or  $\square$  liters per batch

**or** by Weight \_\_\_\_\_  $\square$  lbs. or  $\square$  kg per batch

Process will operate:

$\square$  Continuously \_\_\_\_\_ hours/day

$\square$  Intermittently \_\_\_\_\_ hours ON, \_\_\_\_\_ hours OFF

### TEMPERATURE

Temperature of incoming product \_\_\_\_\_  $\square$ °F /  $\square$ °C

Temperature during drying \_\_\_\_\_  $\square$ °F /  $\square$ °C

**MAXIMUM** temp. during drying \_\_\_\_\_  $\square$ °F /  $\square$ °C

Final temp. after drying/cool down \_\_\_\_\_  $\square$ °F /  $\square$ °C

### SOLID & LIQUID PRODUCT CHARACTERISTICS

#### SOLID COMPONENTS

Name(s) \_\_\_\_\_

Bulk Density (lowest/min.) \_\_\_\_\_  $\square$  lbs./ft<sup>3</sup> /  $\square$  g/cc

Bulk Density (tapped/max.) \_\_\_\_\_  $\square$  lbs./ft<sup>3</sup> /  $\square$  g/cc

Heat Capacity \_\_\_\_\_  $\square$  BTU's/lbs.°F /  $\square$  kJ/kg°K

#### Solids Characteristics:

$\square$  Friable  $\square$  Dusty  $\square$  Cohesive  $\square$  Abrasive  $\square$  Agglomerates

Particle Size: \_\_\_\_\_  $\square$  mesh or  $\square$   $\mu$  microns

#### LIQUID COMPONENTS

Name(s) \_\_\_\_\_

Percent Liquid (wet basis) \_\_\_\_\_ %

**or** Weight of Liquid only \_\_\_\_\_  $\square$  lbs. /  $\square$  kg

**Required Final Moisture Level** \_\_\_\_\_ %

Percent Free Moisture \_\_\_\_\_ %

Percent Bound Moisture \_\_\_\_\_ %

Liq. Heat Capacity \_\_\_\_\_  $\square$  BTU's/lbs.°F /  $\square$  kJ/kg°K

Heat of Vaporization \_\_\_\_\_  $\square$  BTU's/lbs. /  $\square$  kJ/kg

### LIQUID ADDITION

Are liquids added during the process?  $\square$  Yes  $\square$  No

Name(s) \_\_\_\_\_

Liquid Viscosity \_\_\_\_\_ cps @ \_\_\_\_\_  $\square$ °F /  $\square$ °C

Quantity \_\_\_\_\_  $\square$  usg /  $\square$  liters

Rate of Addition \_\_\_\_\_  $\square$  gpm /  $\square$  lpm

### HEATING JACKET

Jacket Rating:  $\square$  14.7 psig non-code

$\square$  ASME code stamped \_\_\_\_\_ psig

FACILITY ELEVATION (above sea level) \_\_\_\_\_  $\square$  feet /  $\square$  meters

### PRODUCT CONTACT MATERIAL

$\square$  304,  $\square$  316  $\square$  316L Stainless Steel

$\square$  Other Alloy \_\_\_\_\_

$\square$  Coating \_\_\_\_\_

### EXTERNAL & SUPPORT MATERIALS

$\square$  mild steel  $\square$  304  $\square$  Other \_\_\_\_\_

### SURFACE FINISHES

Internal:  $\square$  bead blast,  $\square$  \_\_\_\_\_ grit,  $\square$  \_\_\_\_\_ Ra ( $\mu$  inch)

External:  $\square$  bead blast,  $\square$  \_\_\_\_\_ grit,  $\square$  \_\_\_\_\_ Ra ( $\mu$  inch)

External Structural:  $\square$  coated,  $\square$  other \_\_\_\_\_

### CLEARANCES

Clearance below Discharge Valve \_\_\_\_\_ "

Height/Ceiling Restrictions \_\_\_\_\_ "

### UTILITIES AVAILABLE

Electrical \_\_\_\_\_ voltage, \_\_\_\_\_ phase, \_\_\_\_\_ Hz

Vacuum \_\_\_\_\_ "Hg, \_\_\_\_\_ cfm

Air \_\_\_\_\_ psig, \_\_\_\_\_ cfm

Water \_\_\_\_\_  $\square$ °F /  $\square$ °C, \_\_\_\_\_ gpm, \_\_\_\_\_ psig

Steam \_\_\_\_\_ psig, \_\_\_\_\_ lbs./hour

### ELECTRICAL CLASSIFICATION

Will dryer and controls be in different areas?  $\square$  Yes  $\square$  No

Motor Classification:

• Class:  $\square$  Cls. I (gas/vapor),  $\square$  Cls. II (dust)

• Division:  $\square$  Div. 1 (Class substance is present in normal conditions)

$\square$  Div. 2 (Class condition is present in abnormal conditions)

Electrical Enclosures:  $\square$  NEMA-12,  $\square$  NEMA-4 (washdown)

$\square$  NEMA-4X (washdown & corrosive),  $\square$  NEMA-7&9 (XP)

$\square$  NEMA-4,7&9,  $\square$  other \_\_\_\_\_

### SUPPORT EQUIPMENT REQUIRED

$\square$  Vacuum System  $\square$  Solvent Recovery

$\square$  Heating  $\square$  Cooling

$\square$  Liquid Addition  $\square$  Lump Breaker

$\square$  Liquid Filtration  $\square$  Inert Gas Purge

$\square$  Solids Sampler  $\square$  Drum Loading/Unloading

$\square$  Controls  $\square$  other solids handling

### PROJECT SCHEDULE

Start-Up Scheduled for  $\square$  1<sup>st</sup>  $\square$  2<sup>nd</sup>  $\square$  3<sup>rd</sup>  $\square$  4<sup>th</sup> Qtr., 20 \_\_\_\_\_

Is Project Funded:  $\square$  Yes  $\square$  No

Installation Location (State or Country) \_\_\_\_\_