

1.1 Solyndra – Chemical Mix Dispensary for Solar Panel Manufacturing

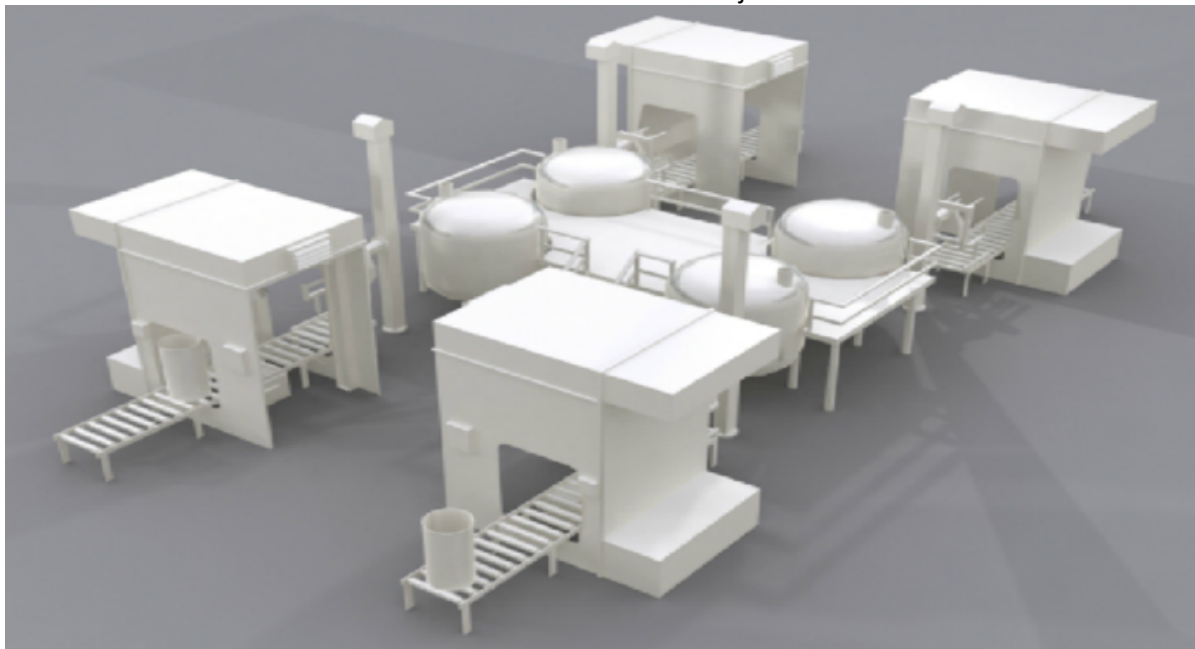
Project Overview - CPS designed, build and installed a two duplicate lines of dry powder to liquid chemical mix system to supply a state of the art, robotic solar panel manufacturing facility. The system processed drums of high toxicity Cadmium Sulfate and Thiourea powders in a highly contained manner to introduce the product into liquid mix tanks. Mixing of the powder into the liquid creates an endothermic reaction that required a highly responsive tank heating system to quickly react and control product temperature within a 5° C range.

The Chemical Mix Systems share a common work platform and Off- Spec Waste Tank. All systems are identical in design and function differing only by the size of the dry material drums. The function of the system is to create a homogenous mixture of deionized water and Thiourea (or deionized water and Cadmium Sulfate) to deliver to the client’s Bulk Delivery System.

Statistics



Date: 2008
 Location: Fremont, California USA
 Total Order Value: \$2,400,000
 Duration of Project: 12 months



Qty.	Major components of each line of the Chemical Mix System are as follows
1	1000-gallon Chemical Mix Tank (1250-gallon total capacity)
1	Drum Lift Inverter
1	Down Flow Booth
1	Material Handling Conveyor with Scale
1	Integrated Control System with DSC connectivity
	Major components shared by all four lines are as follows:
1	Lot piping
1	Structural support and work platform
1	Off-Spec Waste Holding Tank

[Please click on this file to view an animation of the system operation](#)



Soyndra
Animation.mp4



Figure 1 - Integration Reporting Diagram

