CALVERT
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PLANNING
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INTERIORS

Hazardous Occupancy Experience

Calvert Architectural Group (CAG) has provided services for approximately 160 hazardous occupancy projects over the past twenty-two years. The services addressed facility operations with manufacturing, blending, compounding, dispensing & packaging and also warehouse facilities used for the storage and distribution of raw and finished goods. The designs and construction documents that were developed addressed the applicable code criterion associated with the operational use and when necessary also included AM&M (Alternative Means and Methods) design solutions where practical difficulties existed for full code compliance. In some instances CAG was able to guide the client in avoiding the H-Occupancy use requirements by utilizing control areas and trimming the MAQ's to quantities below the exempt levels. The majority of the projects have been in California, however CAG has also provided hazardous occupancy services in Washington, Oregon, Colorado, Arizona, Florida, Mississippi and Illinois. CAG works closely with Fire Marshals, Building Officials and other plan check professionals on hazardous occupancy projects and has had a 100% success rate in realizing permits and approvals.
The following is a sampling of project and process types that CAG has participated in:

- Aerospace composites manufacturing of pre-preg materials and resin systems and manufacturing of finished product using those systems.
- Mixing and storage environments for epoxy systems
- Copper, nickel, cadmium and chrome plating metal processes facilities
- Plating facilities for the manufacturing of Printed Circuit Boards
- Electrical transformer manufacturing and the protective epoxy coating processes
- Mixing environments for compressed hazardous gasses
- Hazardous blending, packaging and storage environments for automobile cosmetic products containing flammable, combustible, corrosive and other hazardous materials
- Hazardous coating environments with Thermal and Regenerative Thermal Oxidizers
- R&D Laboratory environments for developing new products and QC.
- Adhesive blending, packaging and storage environments
- Mixing and storage of flammable based ink products
- Mixing, Packaging and storage of hazardous coatings
- Storage of refrigerated flammable based food flavor additives
- Temperature controlled storage environments for hazardous organic peroxides
- Temperature controlled storage of corrosives associated with the printing industry
- Mixing and storage environments for water reactive hazardous polymers
- Multiple H-2 Occupancy environments for the use-open and use-closed mixing, blending and filling applications of hazardous liquids or powders
- Multiple H-3 Occupancy Liquid Storage Rooms for the storage of flammable and combustible materials

- Multiple H-3 Occupancy Liquid Storage Warehouses for the unlimited storage of flammable and combustible materials
- Audit and design services of multiple hazardous occupancy facilities for corporate insurance and code compliance purposes
- Hazardous Occupancies for the repair and servicing of hybrid automobiles using compressed hydrogen gas and fossil fuels.
- Cosmetic factory environments for the mixing, blending and packaging of finger nail polish, lotions, and other IPA based solutions
- Facilities for the packaging and storage of oxidizers, acid and water reactive based swimming pool products.
- Interior and exterior tank farms for hazardous bulk material storage and containment systems for use-closed manufacturing operations
- Hazardous Occupancy compliance design for ethanol alcohol processing plant
- Exterior Bulk transfer stations for tank filling of hazardous material and the containment system supporting such facilities
- Spur track rail containment of bulk chemical tankers for hazardous materials
- Facilities for the recycling of battery materials (lead, plastic and electrolyte) and manufacturing of new batteries
- Multiple storage facilities for new batteries
- Battery testing operations and the capturing, treatment and exhausting of the fugitive hydrogen emissions.
- Lithium-ion battery light assembly process environment code research, Research into safety systems associated with early detection and the prevention of thermal runaway events
- Metal heat annealing and tempering processes using compressed hydrogen gas
- Facilities for the manufacturing and assembling of IPA based Medical test kits
- Multiple paint company facilities used for manufacturing and storage of flammable and combustible liquids, and or the filling and or storage of aerosols
- Storage facilities for hazardous related caulks and sealants
- Formulating and packaging operations of spec hazardous products for metal prep and finish
- Dust collection systems in manufacturing facilities
- Multiple Control Area designs to enable clients to keep the hazardous material volumes below the exempted MAQ’s, thereby avoiding the remodeling of their facility for compliance with the code requirements associated with Hazardous Occupancy environments