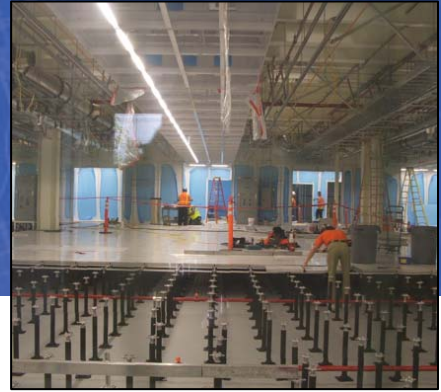


MICROELECTRONICS - Semiconductor Device & Equipment

# TDK – MagIC Technologies Cleanroom Manufacturing Facility



## OVERVIEW

As prime consultant, IES provided project management, engineering design and HazMat consulting for the Class-1 and Class-10 raised floor cleanroom design. IES provided comprehensive project management from the project preplanning phase through design, permitting, construction, commissioning and operation.

## PROJECT DETAILS

- Retrofit an existing 105,000 sq.ft. office facility into:
  - 40,000 sq. ft. Class-1, 10 & 100 cleanrooms
  - 3,000 sq.ft. H-Occupancy chemical bunkers
  - 37,000 sq. ft. office space & support functions
  - 23,000 sq.ft. Central Utilities Plans
- Mechanical systems design included central chilled water plant, heating hot water plant, make-up air handling and recirculating air handling system.
- Industrial ventilation included ventral VOC solvent abatement, corrosive scrubbed exhaust and general exhaust systems.
- Process systems design included central DWI, PCW, AWN, HMW treatment, process vacuum and CDA systems.

## IES SOLUTIONS

- Avoided H5 fabrication facility through hazardous materials systems design resulting in savings of 3-6 months in project schedule and \$2,000,000 in construction costs.
- Designed non-ducted return air handling system using steel cladding for combustible roof materials in return air plenum. This was novel design concept that saved over \$500,000 in construction costs.
- IES awarded 2005 PG&E Savings by Design Award for achieving 6.4 million kwh annual power savings – the largest single meter savings project in the history of PG&E to date.

## LOCATION

Milpitas, California

## TEAM (PARTNERS)

Architect: WHL Architects

Structural: Peoples' Associates

## PROJECT DURATION

Design & Permit: 6 weeks

Construction: 11 months

## PROJECT VALUATION

\$10,000,000 - \$50,000,000

## ABOUT IES

Integrated Engineering Services (IES) is an established firm providing innovative and cost-effective solutions to meet your complex engineering, design and operational needs.

**When experience, knowledge and innovation matter most.**