



IDC Life Safety & Security Systems – Representative Projects

IDC has helped hundreds of clients with their life safety and security (LSS) needs. Our market sectors include clients in the following areas:

- High-technology facilities
- Office buildings, university campuses, alumni centers
- Command centers, computer rooms, data centers
- Correctional and detention facilities
- Medical campuses and research laboratories
- Airports

Client	Location	Project Description
Applied Materials CEOC	Santa Clara, California	LSS design, integration, and construction management services for the corporate emergency operations center. The center incorporates all campus gas detection, CCTV, security, fire control, and communications.
Applied Materials Building 1	Santa Clara, California	LSS toxic gas ordinance design for multiple microelectronics research and development labs. FAST fire alarm system, GE PLC control, and MDA gas monitoring system. Converted existing Gas Tech analog sensors to GE PLC gas control system. Provided construction management and system integration and certification.
Applied Materials Buildings 1, 8	Santa Clara, California	LSS and I&C audit and upgrade of existing facility to comply with Santa Clara Toxic Gas Ordinance. GE PLC gas controllers monitoring MDA gas detection equipment.
Applied Materials Buildings 1, 8	Santa Clara, California	LSS toxic gas ordinance analysis for two multiple lab microelectronics equipment research buildings. Performed TGO analysis, building, and equipment studies to determine best gas detection and control.
Applied Materials Building 2	Santa Clara, California	LSS/I&C design for Class 10 microelectronics equipment research and development lab. Simplex fire alarm system and GE PLC gas controllers monitoring MDA gas detection equipment.
Applied Materials Building 2	Santa Clara, California	LSS toxic gas ordinance expansion design for Class 10 microelectronics equipment research and development building. Expansion of existing 2,000-point GE PLC and MDA system. Added additional single-point EIT ozone monitoring. Provided construction management and system certification.
Applied Materials Korea	Chun-An, Korea	LSS design for multiple cleanroom microelectronics research and development labs. GE PLC gas detection systems with electrochemical sensors and SCADA graphics.
Applied Materials Taiwan	Hsin-Chu, Taiwan	LSS Toxic Gas Ordinance design for microelectronics applications lab. GE PLC 9070 PLCs monitoring MST electrochemical gas detection equipment.
Confidential Client	Arizona California Colorado Ireland Washington	LSS audits and system design, design/construction management, and design/build for fire alarm, early warning smoke detection, toxic gas ordinance compliance, radio antenna, liquid leak detection, security, CCTV and hazardous production material gas detection for large semiconductor manufacturing facilities.

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Confidential Client	Hillsboro, Oregon	<p>Master planning, site design, traffic circulation, building design and construction services performed since 1993 for two high-technology manufacturing sites; one 400 acres and another 150 acres. These two campus developments encompassed more than 20 buildings involving manufacturing, office space, utility plants, and warehouses. IDC's services included provision of traffic circulation, parking, landscaping and comprehensive security systems for the entire site and its numerous individual buildings.</p> <p>One unique aspect of this project was the requirement to relocate the site-wide Command Center to a larger room in another facility. This required extensive design support and scheduling in order to maintain a 'no cold shutdown' requirement. Project requirements included relocating approximately 250 camera video signals, the site-wide security system computer, multiple fire alarm and gas detection system reporting and control computers, and site-wide paging and intercom controls.</p>
Confidential Client	Hudson, Massachusetts	LSS and gas detection system design for 500,000-square-foot facility incorporating 60 gas cabinets, 12 MDA systems, Modicon PLC control system, 2,000-point fire alarm system, and 75,000 square feet of Class 1/10 cleanroom.
Confidential Client	Israel	<p>A 707,000-square-foot facility including an 85,000-square-foot Class 1 cleanroom and a 75,000-square-foot central utility building; 400,000-square-foot, four-story office building; 80,000-square-foot office/warehouse; and 30,000-square-foot hazardous material storage building.</p> <p>Security was a key element considered throughout the planning, design and construction of this high-tech facility. Of particular relevance is the requirement and incorporation of Israeli Home Defense regulations and guidelines (for protected areas, bomb shelters, etc.) in compliance with the Israeli Building Code and project specific security needs.</p>
Dominion Semiconductor (IBM-Toshiba Joint Venture)	Manassas, Virginia	Fire alarm, gas detection, liquid leak detection, CCTV and security for a 500,000+-square-foot production fab. Simplex fire alarm, Modicon PLC control systems, and PermAlert liquid leak systems. VESDA early warning smoke detection system monitors fab cleanroom.
Dominion Semiconductor (IBM-Toshiba Joint Venture)	Manassas, Virginia	Fire alarm, gas detection, liquid leak detection, CCTV and security for Building 130, a 200,000-square-foot conversion of an existing building to office space, lab areas and testing facilities.
Eircom	Ireland	Engineering design services to the main Irish telecommunications operator for its US\$700M investment to allow its system to handle new generation ADSL equipment. This design is being carried out to world-class standards, including 100% redundancy (2N).

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Flex Products, Inc.(FPI)	China	<p>In cooperation with the China Banknote Printing and Minting Corporation (CBPMC), FPI is establishing a wholly owned manufacturing facility for the production of optical variable pigment in the Beijing Economic-Technological Development Area (BDA), People's Republic of China (PRC). IDC prepared the basis of design (BOD) for the Beijing base building and the process support equipment, then provided part-time supervision and coordination to FPI for the design and construction activities.</p> <p>This project involves the world's most advanced and security-sensitive currency production technology. Because the optically variable pigment is used in banknote printing, this highly valuable product is vulnerable to theft and tampering. As a result, several rigorous security measures were implemented in the facility design, reducing product risk and increasing employee safety.</p>
Fujitsu Microelectronics	Gresham, Oregon	Responsible for the execution of a turnkey gas detection system upgrade. Project involves installing and commissioning new PLC gas systems, retrofitting existing systems, and modifying and testing existing PLC code and graphics in an operating facility.
Fujitsu Microelectronics	Gresham, Oregon	LSS design for the fire alarm, early warning smoke detection, liquid leak detection, security and CCTV systems for a Class 1 wafer fabrication facility. Pyrotronics fire alarm system utilized for 1,800 points. Casi-Rusco security and Burle CCTV system utilized for 65 card readers and 40 cameras.
Hewlett Packard	Palo Alto, California	LSS and gas detection system design for 25,000-square-foot research and development facility with 18,000 square feet of cleanroom, Class 1/10. Edwards fire alarm system utilized for 400 alarm and shutdown points.
Hewlett Packard Buildings 90, 91	San Jose, California	Hydrogen detection and control system code compliance and system study. Study of existing Rexnord sensors and Westinghouse System 6000 control system at a discrete component production facility.
Hewlett Packard	Corvallis, Oregon	LSS design services on a sustaining basis for an integrated circuit manufacturing facility. The 11-building facility encompasses various life safety systems which include the Simplex 4120 fire alarm system, MDA gas detection units, Detector Electronics flammable gas detection and Westinghouse security.
Hewlett Packard	Corvallis, Oregon	Fire alarm, I&C, and gas detection system design for 350,000-square-foot submicron microelectronics manufacturing facility with 50,000 square feet of cleanroom up to Class 1. Simplex 2120 system utilized for alarm and shutdown functions for over 3,000 points.
IBM Corporation	East Fishkill, New York	Audit of existing campus for compliance with BOCA, fire, and state codes.
IBM Corporation	Manassas, Virginia	Fire alarm and gas detection design for LUNA project. Project included 2,500 control points, with a Modicon PLC.
Kanto Chemical	Portland, Oregon	LSS design for the fire alarm, gas detection, security, CCTV, and master clock systems. Provided LSS interface to process equipment and central station.

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Komatsu Silicon America Phase II	Hillsboro, Oregon	LSS design for a 26,360-square-foot crystal growing facility with a Class 10,000 cleanroom, and a 96,525-square-foot polished wafer manufacturing facility with cleanrooms ranging from Class 10 through Class 100,000. Simplex fire alarm with 790 points, Simplex security and CCTV systems and GE PLC gas detection system monitoring 342 points of MST gas detection sensors, differential pressure sensors, EGO and related points.
Motorola Corporation MOS-1 6-Inch Expansion	East Killbride, Scotland	Fire alarm, gas detection and security system design for a new 20,000-square-foot Class 1 cleanroom used for submicron production. System required phased installation over a period of 18 months.
Motorola Corporation MOS-9 MLM Expansion	East Killbride, Scotland	Fire alarm and security system design and construction support for 35,000-square-foot Class 1 cleanroom facility. Includes design and installation supervision of a new site security control center to accommodate CCTV, gas alarm, fire and security alarm systems.
Motorola Corporation MOS-13	Austin, Texas	Life safety system design for a 54,000-square-foot cleanroom facility for manufacturing. System design included performance specifications written for fire alarm system.
Motorola Corporation MOS-17	Tianjin, China	LSS design for fire alarm, early warning smoke detection, security and CCTV systems for a greenfield wafer fabrication campus consisting of a fabrication building, utility building, and support building. Honeywell fire alarm system provides 1,300 points; Honeywell security and CCTV system monitors 20 card readers and 20 cameras.
OHKA America	Hillsboro, Oregon	LSS design-build of a 15,000-square-foot Class 1000 microelectronics photoresist chemical manufacturing building and 6,000-square-foot cold storage warehouse as expansion to existing site. Simplex fire alarm system used for monitoring fire alarm and security devices, in addition to Detector Electronics combustible gas and oxygen depletion sensors and TraceTek liquid leak detection. 200-point expansion to site network.
Olin Rocket Research	Moses Lake, Washington	Design services for a gas generator manufacturing facility consisting of a propellant manufacturing building, assembly building, utility building, mixing facility, office building, and several storage buildings. Building hardening, blast wall design, and product and employee safety were important aspects of this facility, which manufactures highly volatile propellant used in automobile air bags. Fire alarm, security and CCTV designs all played a key role in the design.
Oregon Health Sciences University	Portland, Oregon	Site utilities study exploring the feasibility of expanding the campus subsystems in order to incorporate a new Clinical Health building and Biomedical Research Laboratory. System requirements included interviewing site technicians responsible for campus, fire alarm telecommunications, security, and CCTV systems in order to determine current system capacity and expansion capabilities.
SEMATECH	Austin, Texas	LSS design for the retrofit of a 200,000-square-foot research complex incorporating submicron wafer fabrication which includes 50,000 square feet of Class 1/10 cleanroom and a remote central utility plant. Autocall fire alarm system provides 2,000 points.
Silicon Systems	Santa Cruz, California	Upgrade fab and support for fire alarm system. Installed additional gas cabinets, MDA, and Bacharach systems.

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Silicon Systems	Santa Cruz, California	Installed gas control system for silicon system startup. Utilized Semi-Gas cabinets, MDA, and Bacharach equipment. Provided a Texas Instruments PLC for controls and reporting.
ST Microelectronics	Phoenix, Arizona	Responsible for the execution of a turnkey gas detection system. Project involved installing a new toxic gas management system (TGMS) backbone, cutting over the existing systems, retrofitting existing tools, adding new tools, and modifying/adding new software, all in an existing operating facility.
SGS-Thomson	Rousset, France	LSS design for fire alarm, public address, early warning smoke detection, security, CCTV, gas detection, liquid leak detection, master clock and information television systems for a high-volume production fabrication facility.
SGS-Thomson	Singapore	LSS design for fire alarm, public address, early warning smoke detection, security, CCTV, gas detection, liquid leak detection, master clock and information television systems for a high-volume production fab and administration building.
Space Systems Loral	Palo Alto, California	Upgrade of existing facility fire alarm and detection system. Installed FAST fire alarm, security, CCTV, and gas detection systems.
Texas Instruments R&D 1 Facility	Dallas, Texas	LSS design for 523,500-square-foot research and development facility on Texas Instruments campus, including 50,000-square-foot Class 1 cleanroom. Fire alarm, security, CCTV, master clock, emergency call systems provided. Simplex fire alarm system monitoring 700 points. Kastle security system.
University of California, Santa Barbara	Santa Barbara, California	LSS design and audits under the Toxic Gas Ordinance (TGO) for hazardous production materials for R&D facilities. Provided gas detection design utilizing paper tape and electrochemical technologies.
VLSI	San Antonio, Texas	LSS and gas detection design for a Class 1 microelectronics wafer fabrication facility on a 50-acre site. Allen-Bradley PLC based system for over 750 points of gas control, detection, and alarm.
VLSI	San Antonio, Texas	LSS design for expansion of existing facility in a three-story building shell. Pyrotronics XL-3 system upgraded and expanded by 300 points. Public address system upgraded.
Wacker Siltronic	Portland, Oregon	LSS upgrade designed for GE PLC-based system for alarm reporting of toxic and flammable gas detection. The system implements supervised I/O for over 250 points of gas detection, exhaust monitoring, and alarm annunciation.
Wacker Siltronic	Portland, Oregon	Fire alarm, gas detection, security and CCTV system design for a 40,000-square-foot cleanroom facility.
White Oak Semiconductor (Motorola-Siemens Joint Venture)	Richmond, Virginia	Fire alarm, gas detection, security and CCTV system design for a greenfield 60,000-square-foot DRAM manufacturing facility.

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