Plan Review and Inspection Procedure for Design & Construction and Facilities Management

Responsible Administrator: Campus Fire Marshal
Revised: June 2020

Summary: This section outlines the policy and procedures related to Fire and Life Safety Plan Review and Inspection Procedure for Design & Construction and Facilities Management that are administered through the Environmental Health & Safety (EH&S) Department.

1. Program Description

This program serves as a guideline for Design & Construction Services (D&CS) & Facilities Management (FM) projects involving State Fire Marshal (SFM) required plan review and inspection/testing of renovations and new construction projects at the University of California, Irvine (UC Irvine). By establishing these criteria, UC Irvine strives to receive the highest quality of construction workmanship on all construction projects while optimizing the performance of facility fire and life safety systems. UC Irvine’s Environmental Health and Safety (EH&S), D&CS and FM will work together to implement and accomplish the goals of this program.

2. Scope

This program applies to all new construction and renovations projects on the grounds at UC Irvine. Coordinating plan review, field inspection requests, conducting inspections, and closing out projects are the responsibilities of both the EH&S Designated Campus Fire Marshal (DCFM) D&CS and FM project manager.

3. Definitions

- **Campus Fire Marshal (CFM)** – The CFM is a campus representative who has the responsibility and authority to enforce fire and life safety requirements in all UC Irvine facilities.

- **Designated Campus Fire Marshal (DCFM)** – At UC Irvine, the State Fire Marshal (SFM) has delegated the Designated Campus Fire Marshal (DCFM) and assigned representatives as the Authority Having Jurisdiction (AHJ) for plan review and construction inspections. The DCFM also has the responsibility and authority to enforce SFM regulations and requirements elsewhere on campus.
• **Fire Life Safety Systems** – Comprised of building systems intended to alert and protect occupants of fire dangers and other related perils. These systems help to preserve life and property by protecting a building or facility against fire hazards. These systems include, but are not limited to, smoke control systems, fire alarm detection and notification systems, fire sprinkler systems, and building construction design to protect occupants in the event of a fire.

• **Inspector of Record (IOR)** – A D&CS/FM employee who is assigned to record all construction activities and observations that occur on a specific construction site.

• **National Fire Protection Association (NFPA)** – A non-profit educational and technical association that educates and develops fire protection standards for protection of life and property.

• **Notice to Proceed (NTP)** – A notice issued from D&CS/FM Contracts Department to the Contractor that a project may proceed to the construction phase.

• **Project Manager (PM)** – A D&CS/FM employee who is assigned to manage a FM construction project.

• **Request for Information (RFI) Form** – A form used by the contractor which is sent to D&CS/FM to gather additional information about the construction project.

• **SFM Fire Safety Correction Notice (Form EN-11)** – A form provided to the construction site Inspector of Record (IOR) from the DCFM that indicates deficiencies and/or hazards in need of correction by the General Contractor or Subcontractor.

• **SFM Inspection Report (Form EN-2)** – A form provided to the construction site IOR from the DCFM that indicates no deficiencies or hazards were identified during the inspection.

• **Submittal** – A proposed plan or specification for various parties’ (EH&S, Facilities Management) review and approval.

4. **Responsibilities**

• **Facilities Management Project Services Department (FMPSD)** is responsible for:
  o Ensuring that all project construction follow D&CS/FM department processes and that projects have been properly implemented;
  o Ensuring that all projects that affect fire and life safety systems have been inspected;
  o Assigning project managers (PM) and inspectors of record (IOR) to each construction project on campus;
  o Providing training and resources to PM’s and IOR’s related to construction safety and fire safety; and
  o Assisting EH&S in the implementation of this program.

• **D&CS/FM Project Managers (PM)** are responsible for:
  o Scheduling and conducting the Scope / Design meetings with the Designated Campus Fire Marshal (DCFM) and other EH&S staff members as necessary;
  o Submit “EH&S Plan / Document Review Transmittal Form, (Appendix A)” and obtain DCFM approval before sending project to D&CS, FM Contracts Department;
Conduct bi-monthly meetings with DCFM and other D&CS, FM departments to review project status;
Reviewing inspection and non-conformance reports for outstanding items;
Reviewing outstanding action items with the DCFM in order to agree upon project completion;
Communicating to the Project IOR regarding EH&S issues on their construction project;
Assisting EH&S in the implementation of this program.

- **D&CS/FM Project Inspector of Record (IOR) is responsible for:**
  - Scheduling project inspections with the DCFM at least 48 hours in advance;
  - Communicating on a timely basis to the DCFM about rescheduling or canceling inspections;
  - Ensuring all necessary items have been completed before the start of the inspection;
  - Obtaining the DCFM approval for all SFM required inspections;
  - Ensuring that all necessary paperwork is approved and all necessary signatures have been obtained;
  - Verifying that there are no outstanding DCFM requests;
  - Assisting the PM and DCFM during the project closeout process;
  - Assisting EH&S in the implementation of this program.

- **Designated Campus Fire Marshal (DCFM) or assigned representative(s) is responsible for:**
  - Conducting SFM required inspections;
  - Testing building construction and approving all fire and life safety systems;
  - Working in conjunction with the D&CS, FM, PM’s, IOR’s, and Construction Contractors;
  - Approving construction projects for: “Beneficial Occupancy”, “Substantial Approval” or “Fire Clearance”;
  - Serving as a fire and life safety technical resource to Facilities Management;
  - Implementing this program for all renovations and new construction projects on campus.

- **Environmental Health and Safety (EH&S) is responsible for:**
  - Coordinating construction safety and fire safety training to D&CS/FM, if necessary;
  - Reviewing EH&S Plan / Document Review Transmittal Form, (Appendix A) when requested by the PM;
  - Coordinating construction and fire safety training to D&CS/FM, if necessary;
  - Serving as an EH&S technical resource to D&CS/FM;
  - Coordinating and conducting inspections of existing buildings on campus.

5. **Program Components**

The procedure to initiate a plan review, construction project site inspection and/or test, and the closing out of a project are described in the following process:

- **Plan Review**
  - The DCFM shall review all D&CS and FM projects. The PM must submit to the DCFM the project scope and associated documents via the “EH&S Plan/ Document Review Transmittal” form. The DCFM shall attend design meetings when requested by the PM. Once the project is approved by the DCFM the project can be sent to D&CS/FM Contracts for processing.

- **D&CS/FM and General Contractor Pre-Construction Meeting**
  - Before the commencement of any project, a Project Pre-Construction Meeting is held between FM and the Contractor. During this meeting, the project criteria is set and scheduled. This meeting is conducted after the Notice to Proceed (NTP) is sent to the Contractor. PM may request DCFM to attend Pre-Construction meeting if needed.
• Construction User’s Meeting
  o The DCFM shall periodically, or upon request of the Project IOR or PM, attend the project user’s construction meetings to provide fire and life safety technical consultation (e.g. fire access and egress, fire main service, exiting, rated construction, building fire safety systems, through penetrations, fire stopping, and other EH&S issues). The IOR or the PM shall schedule these meetings with the DCFM on the DFA calendar system at least 24 hours before the meeting in available time slot on the calendar.
  o D&CS/FM shall forward all project meeting minutes to the DCFM for review.

• Pre-DCFM Inspections
  o The D&CS/FM Project IOR will inspect the construction area to ensure it is ready for inspection or testing by the DCFM.
  o Once the Project IOR has determined that the construction is acceptable, the Project IOR will schedule the DCFM on DFA calendar system. The inspection request should be sent 48 hours prior to the requested inspection time.
  o If for some reason the DCFM must cancel the requested inspection, the DCFM must notify the project IOR as soon as possible and reschedule the inspection.
  o For same day or next day Request for Inspections, the Project IOR must call the DCFM to schedule an inspection time.
  o The DCFM has 24 hours to respond to the Request for Inspection by accepting the Outlook calendar request. An email confirmation will be sent back to the IOR from the DCFM to confirm the inspection request and time.
  o When the project IOR is scheduling the DCFM inspection, he or she must include a minimum of 30 minutes to review plans and/or the submittal at the construction site and adequate time for the physical inspection.

• DCFM Inspection
  o The DCFM will walk the job site with the Project IOR after both parties agree to the scope of the inspection.
  o Both the DCFM and the Project IOR will take notes of corrections or comments identified during the inspection.
  o If during the inspection either the DCFM or the Project IOR feel that the project site is not ready for inspection, either party may cancel the inspection and the Project IOR will reschedule the inspection.
  o If during the inspection the DCFM has questions regarding the construction, he or she will only address the questions to the Project IOR, not to the Contractor or subcontractors.

• DCFM Report
  o The DCFM must use the SFM’s Notice of Correction, EN-11 form (Appendix B) to document items for correction following all site inspections and tests. The DCFM may also use the SFM Inspection Report, EN-2 form (Appendix C) if no corrective action is required from the inspection. The DCFM shall have 48 hours to provide the Project IOR a completed SFM Report and shall include the following:
    ▪ The DCFM will type an electronic SFM Report and electronically send it or deliver a hard copy to the Project IOR.
    ▪ The Project IOR will then sign the SFM Report and make a copy for his or her records.
    ▪ If an authorized representative of the DCFM has performed the site inspection or test, he or she will take the original SFM Report to the DCFM for his or her signature.
    ▪ The Project IOR will use the photocopied report to follow up and complete all action items and recommendations.
    ▪ The original SFM Report will be available at the EH&S building if desired.
Required inspections and tests to be performed by the DCFM include, but are not limited to:

- **General**
  - Review of construction site roads and fencing for fire department access
  - Approved plans in IOR's office or on site – stamped by CFM

- **Underground Fire Lines**
  - Underground fire service material inspection – piping, fittings, and hardware etc.
  - Underground fire service inspection of thrust blocks, depth of bury, and trace wire
  - Underground fire service hydrostatic test – this includes the FDC
  - Underground fire service flush test

- **Sprinkler & Standpipe Systems**
  - FDC signage and labeling
  - Fire pump acceptance test
  - Structural steel sprayed on fire proofing inspection
  - Sprinkler & standpipe material inspection – piping, welds, grooves, etc.
  - Sprinkler & standpipe rough-in inspection
  - Sprinkler & standpipe hanger and seismic bracing inspection
  - Sprinkler & standpipe pipe clearance thru walls and floors
  - Sprinkler & standpipe number, type and arrangement of heads
  - Sprinkler & standpipe hydrostatic test – with all heads and drops installed
  - Sprinkler & standpipe flow test
  - Sprinkler & standpipe drain location inspection
  - Sprinkler & standpipe test flow switch, drain, tamper and supervision
  - Standpipe flow approval
  - Final approval of sprinkler from DCFM
  - NFPA 13 certificate of completion

- **Fire Resistive Assemblies**
  - Framing inspection of rated walls and shafts
  - Through-wall penetrations and fire stopping - corridor, shafts, stairways, elevators, occupancy walls, area separation walls, floors etc.
  - Joint penetration – curtain walls, expansion joints, floors, walls, slip track etc.
  - Roof covering
  - Back to back boxes in rated walls
  - Rated recess and success panels/doors
  - Opening protection- area separation walls, roll down doors, corridors, walls, ceiling, exterior walls etc.

- **HVAC**
  - Fire/Smoke dampers testing and inspection of angles, labels, screws, bolts, fusible links, and “S” clips, and access doors, duct detector location, and automatic shutdown etc.
  - Duct detector air differential pressure test

- **Automatic Extinguishing Systems**
  - Automatic extinguisher systems test – i.e. FM200, kitchen hood system, fume hood, CO2, dry/wet chemical etc.
- **Fire Alarm**
  - Fire alarm rough-in
  - Fire alarm strobe candela verification
  - Fire alarm inspection and testing – test all devices & appliances, audibility/visual verification, main panel & annunciator panel test, elevator recall, flow & tamper, smoke & duct detectors, battery test, panel supervisory test, roll down/won door, fire pump supervision, smoke evacuation test etc.
  - NFPA 72 certificate of completion
  - Final approval of fire alarm system from DCFM

- **Exiting**
  - Exiting verification – widths per approved plans
  - Exit sign inspection
  - Emergency light inspection to public way
  - Stair – rise and run, handrail and guardrails
  - Signs – maximum occupancy, evacuation and emergency signs

- **Emergency Generator**
  - Emergency generator acceptance test

- **Doors**
  - Fire rated door inspection – frames, smoke gaskets, label, hardware, swing, rated glass, panic hardware, door/frame clearances etc.

- **Miscellaneous**
  - Fire extinguisher location – portable extinguisher verification and cabinet rating if required
  - Interior finishes – walls, floors and ceilings
  - Medical gas inspection – pressure test, label and valve location
  - Know box inspection – location, height and number of keys (prior to occupancy)
  - Comprehensive building final inspection leading to substantial completion

- **Project Closeout Inspection and Report**
  - The California State Fire Marshal Fire and Life Safety Checklist (Appendix D) may be used to assist in the Closeout Procedures. All SFM required documentation must be reviewed and signed by the PM, the Project IOR, and the DCFM before final substantial completion, beneficial occupancy or Fire Clearance can be granted.
  - The following is a list of documentation and conditions to be reviewed prior to Financial Closeout:
    - All inspection requests must be completed and signed by the DCFM or Fire Inspector;
    - All SFM forms must be completed and signed by the DCFM or Fire Inspector;
    - All detail plans for all fire penetrations and fire rated assemblies have been reviewed, approved, and signed by the DCFM or Fire Inspector;
    - Approved plans and documents have been reviewed and filed;
    - All appropriate RFI's have been reviewed and approved by the DCFM or Fire Inspector;
    - The California State Fire Marshal Fire and Life Safety Checklist must be reviewed, completed, and signed by the DCFM or Fire Inspector, if applicable;
    - Documentation of inspections and tests are completed and signed for acceptance and occupation by the DCFM or Fire Inspector;
The NFPA 13 “Record of Completion” form for the fire sprinkler systems is accepted and signed by the DCFM or Fire Inspector; and
The NFPA 72 “System Record of Completion” form for Fire Alarm Systems is accepted and signed by the DCFM or Fire Inspector.

6. Reporting Requirements

All DCFM project records and documentation are maintained in the EH&S Building Fire Division files.

7. References

Title 24 California Code of Regulations (24CCR) California Fire Code (CFC)
National Fire Protection Association (NFPA 72 and/or 13)

Appendices:
A – EH&S Plan / Document Review Transmittal Forms FM, D&CS
B – State Fire Marshal’s Notice of Correction, EN-11 Form
C – State Fire Marshal’s Notice of Correction, EN-2 Form
D – California State Fire Marshal Fire and Life Safety Checklist
Appendix A – EH&S Plan / Document Review Transmittal Forms FM, D&CS

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1a.) FM Requested Due Date: ____________
1b.) EH&S Due Date: ____________

2) Project Number: ____________

3) Building Name: ____________

4) Project Name: ____________

5) Scope of Work: ____________

6) Building Type / Occupancy: ____________

7) BACK CHECK: YES ☐ NO ☐ BY: (PRINT)
8a.) Project Manager: ____________
8b.) Phone: ____________

9) ANSWER “YES” OR “NO” TO EACH OF THE FOLLOWING QUESTIONS.

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<td>B. Sqft. Added to (E) building?</td>
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<td>C. Change of existing floor plan?</td>
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<td>D. Civil, Mechanical, plumbing or electrical?</td>
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<td>E. Fire alarm and detection system?</td>
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<td>F. Fire extinguishing systems?</td>
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<td>G. Requests for the review of specific EH&amp;S departments are indicated on page 2 of this document.</td>
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DOCUMENTS ATTACHED:

- [ ] Plans
- [ ] Specifications
- [ ] EH&S Redlines
- [ ] Addendum

DOCUMENT STATUS:

- [ ] Preliminary Review
- [ ] 80% Review
- [ ] 100% Review
- [ ] Final Review

REQUEST TO CFM:

- [ ] Comments & Corrections
- [ ] Approval Stamp
- [ ] Approval for Contracts
- [ ] Other:

FIRE MARSHAL COMMENTS: ____________

Job Complete? YES ☐ NO ☐ Date: ____________

Print Name: ____________________________ Signature: ____________________________

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<td>- Autoclaves</td>
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<td>- Containment Labs</td>
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<td>- Infectious Agents</td>
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<td>- Recombinant DNA</td>
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<td>- Oil Filled Equipment &gt;55 gallons</td>
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<td>- Stormwater Management</td>
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<td>- Boilers &amp; Water Heaters</td>
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<td>- Food Facilities/Restaurants</td>
<td></td>
<td></td>
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<tr>
<td>- Swimming Facilities</td>
<td></td>
<td></td>
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<tr>
<td>- Water Quality/Chlorination</td>
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</tbody>
</table>
UCI – ENVIRONMENTAL HEALTH & SAFETY
Plan/Document Review Transmittal Sheet, Fire Safety Division
4800 Elson Ave, 2nd Floor, Irvine, CA 92697-2725 Main Office Number (949) 824-6200, Fax (949) 824-8539

DATE RECEIVED AT EH&S

DATE RETURNED TO D&CS

EH&S ID:

D&CS Procession/Date – Outgoing:

EH&S DUE DATE:

D&CS Procession/Date – Incoming:

DESIGN AND CONSTRUCTION

(FILL OUT FORM ITEMS COMPLETELY)

1) PROJECT NUMBER: 2) REQUESTED DUE DATE:

3) PROJECT NAME:

4) SCOPE OF REQUESTED REVIEW:

4a) FOR RECORD ONLY: YES NO 5) BACK CHECK: YES NO

6) PROJECT MANAGER:

7) PHONE:

8) CHECK THE BOX NEXT TO THE TYPE OF DOCUMENT BEING SUBMITTED AND INDICATE THE DOCUMENT NAME/TITLE IN THE ADJACENT SPACE.

RII

SUBMITTAL:

OTHER:

9) ANSWER “YES” OR “NO” TO EACH OF THE FOLLOWING QUESTIONS.

*(Items A Thru G relate to the “SCOPE OF REQUESTED REVIEW”)

A) FIRST-TIME PROJECT SUBMITTAL?

B) SQ FT. ADDED TO EXISTING BUILDING?

C) CHANGE OF EXISTING FLOOR PLAN?

D) CHANGE(S) TO CIVIL, MECHANICAL, PLUMBING, OR ELECTRICAL?

E) CHANGE(S) TO FIRE ALARM & DETECTION SYSTEM?

F) CHANGE(S) TO FIRE EXTINGUISHING SYSTEMS?

G) REQUESTS FOR THE REVIEW OF SPECIFIC EH&S ITEMS ARE INDICATED ON THE BACKSIDE OF THIS SHEET.

Fire Marshal Comments:

DCFM Reviewed

Submittal Complete? YES [ ] NO [ ] SFM

Signature: _____________________________ Date: ____________

C:sers\Shanel\Desktop\Website Documents - New Template\Fire Team - Eric Gardner\Originate\Fire and Life Safety Plan Review and Inspection Procedure for Design & Construction and Facilities Management.doc\Plan Review and Inspections FM
# Environmental Health & Safety Plan Review Items

### Biosafety/Other
- Animal Care Facilities/Vivarium
- Autoclaves
- Bio-Safety Cabinet
- Select Agents
- Infectious Agents
- Recombinant DNA
- Containment Labs

### Environmental Management
- Chemicals—Any Quantity or Use
- Permitted Treatment Equipment
- Chemical Storage Facility & Cabinets
- Emergency Generator Permits
- Hazardous/Regulated Materials
- Underground & Aboveground Storage Tanks
- Storm Water & Related Issues
- Waste Generation
- Environmental Impact Report

### Industrial Hygiene
- Animal Holding Facility/Vivarium
- Asbestos-Containing Materials
- Clean Room
- Food Facilities
- Fume Hoods
- Laboratories
- Lead-based or lead-containing surfaces
- Demolition

### Radiation
- Laser Equipment/Magnets
- Microwave Antennas
- Particle Accelerators/Room Shielding
- Radioactive materials use/Hoods
- Reactor facility, Rowland Hall
- X-Ray Machine use/room shielding

### Safety
- Accessways/Hatches/Ladders
- Eyewash/Shower
- Confined Spaces
- Cryogenic/Compressed Gas
- Ergonomic Risk Factors
- Shops/High Pressure Vessels
- Stairs/Walking Surfaces
- High Voltage/Electrical

### Sanitation
- Swimming Facilities
- Water Quality/Chlorination
- Food Facilities/Restaurants
- Backflow Prevention
## Appendix B – State Fire Marshal's Notice of Correction, EN-11 Form

<table>
<thead>
<tr>
<th>SFM FILE NUMBER</th>
<th>UCI PROJECT NUMBER</th>
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<td>17–30–03–0002–XXX–0</td>
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<table>
<thead>
<tr>
<th>NAME OF FACILITY</th>
<th>NAME OF BUILDING</th>
<th>ADDRESS</th>
<th>ACCOMPANIED BY (Name, Title)</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of California Irvine</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

The California Health and Safety Code and the State Fire Marshal’s regulations require the following fire safety deficiencies be corrected:

The above deficiencies are to be corrected within 30 days. If you have any questions, contact the Campus Fire Marshal at (949) 824-9665. Environmental Health & Safety 4600 Health Sciences Road, Irvine, CA 92697-2725.

<table>
<thead>
<tr>
<th>PREPARED BY</th>
<th>DATE OF NOTICE</th>
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<table>
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<tr>
<th>RECEIVED BY</th>
<th>ISSUED BY (Designated Campus Fire Marshal)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
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I certify that all deficiencies outlined above have been corrected.

SIGNATURE: ___________________________ DATE: ___________________________
Appendix C - State Fire Marshal's Notice of Correction, EN-2 Form

STATE OF CALIFORNIA – NATURAL RESOURCES AGENCY
DEPARTMENT OF FORESTRY AND FIRE PROTECTION
OFFICE OF THE STATE FIRE MARSHAL
FIRE AND LIFE SAFETY DIVISION
INSPECTION REPORT
EN-2 (1296)

INSPECTION REPORT

<table>
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<th>REPORT #</th>
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<tr>
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<tbody>
<tr>
<td>University of California Irvine</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME OF BUILDING</th>
<th>ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
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</table>

| ACCOMPANIED BY (Name, Title) | |
|------------------------------|| |

<table>
<thead>
<tr>
<th>PREPARED BY</th>
<th>DATE OF INSPECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXXXXX-Campus Fire Inspector</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RECEIVED BY</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>
## FIRE AND LIFE SAFETY INSPECTION CHECKLIST

**FACILITY NAME:**

**PROJECT NUMBER:**

### FIELD REVIEW OF PLANS:
- [ ] Approved contract drawings on site
- [ ] Approved plans on site
- [ ] Material inspection
- [ ] Depth of bays & throat blocks
- [ ] Hydrostatic test
- [ ] Flush
- [ ] Trace wire verification
- [ ] Hydrant orientation
- [ ] FDC orientation
- [ ] NFPA 24 certificate of completion
  - Complete  

### UNDERGROUND FIRE LINES:
- [ ] Approved plans on site
- [ ] Material inspection
- [ ] Depth of bays & throat blocks

### STRUCTURAL STEEL PROTECTION:
- [ ] Fire proofing approved plans on site
- [ ] Fire proofing lab reports
- [ ] Fire proofing material inspection
- [ ] Inspect for Trade Damage
  - Complete  

### SPRINKLER & STANDPIPE SYSTEMS:
- [ ] Approved plans on site
- [ ] Sprinkler rough-in inspection
- [ ] Flush of lead-in & FDC
- [ ] Hydrostatic test (shutoff/floor)
- [ ] Hydrostatic test final
- [ ] Drain location & function
- [ ] FDC identification sign
- [ ] PTV identification sign
- [ ] Hangers
- [ ] Seismic bracing
- [ ] Pipe clearance thru walls & floorings
- [ ] Number, type & arrangement of heads
- [ ] Test flow, drain, tamper & supervision
- [ ] Spare head box
- [ ] Cables
- [ ] Standpipe pumpers truck flow approval
- [ ] Fire Pump Test
- [ ] Approval fire investigators
- [ ] NFPA 13 certificate of completion
- [ ] NFPA 14 certificate of completion
  - Complete  

### HVAC:
- [ ] Damper install, instruct, on site
- [ ] Location of access door for inspection
- [ ] Damper Angle inspection
- [ ] 100% smoke damper test by DCFM
- [ ] 100% fire damper test by JOR
- [ ] 10% fire damper drop test by DCFM
- [ ] Location of duct detector for auto shutdown
- [ ] Test Automatic shutdown
- [ ] Air balance complete & report
  - Complete  

### AUTOMATIC EXTINGUISHING SYSTEMS:
- [ ] Approved plans on site
- [ ] Pipe pressure test
- [ ] Protection of floor penetrations
- [ ] Protection of wall penetrations
- [ ] Final AES approval
  - Complete  

### FIRE ALARM SYSTEM:
- [ ] Approved plans on site
- [ ] Rough-in Inspection
- [ ] Test all devices 100%
- [ ] Smoke Detector Test
- [ ] Heat Detector Test
- [ ] Audiovisual notification throughout
- [ ] Test of supervision
- [ ] Panel test
- [ ] Candelas verified
- [ ] 24 hour back-up battery test
- [ ] 48 hour battery recharge test
- [ ] Duct detector magnetic field test/area detection
- [ ] Verify “sequence of operation”
- [ ] Standby trip test & supervisory alarm
- [ ] Elevator recall
- [ ] Roll down / Won - door
- [ ] Fire pump supervision
- [ ] Smoke control system
- [ ] Auto extinguishing system supervision
- [ ] Fire Alarm Panel “Inside Sign”
- [ ] Phone line test with Central station
- [ ] Final fire alarm approval
- [ ] NFPA 72 certificate of completion
  - Complete  

### FIRE RESISTIVE ASSEMBLIES:
- [ ] Framing inspection of walls and shafts
- [ ] Roof coverings
- [ ] Wall fire stopping inspection
- [ ] Shaft fire stopping inspection
- [ ] Floor fire stopping inspection
- [ ] Elevator shaft construction / fire stopping
- [ ] Back to back electrical junction boxes
- [ ] Rated recessed Panels
- [ ] Access Doors
- [ ] Door / Window installation
- [ ] Area Drill Steps
- [ ] Fire Blocking
  - Complete  

### DOORS:
- [ ] Door frame gap
- [ ] Smoke gasket
- [ ] Door hardware
- [ ] Fire Rated Door / Frame Labels
- [ ] Door swing
- [ ] Self-close and latch
- [ ] Card Key Access Fail open egress
  - Complete  

### EXTING:
- [ ] Exit signs rough-in inspection
- [ ] Exit final inspection
- [ ] Exit, level exit signs & marking
- [ ] Emergency lighting to a public way
- [ ] Stair – rise & run
- [ ] Stair – Handrails
- [ ] Guardsrails < 42” x.f.f.
  - Complete  

### EMERGENCY GENERATOR:
- [ ] Load bank test (4 hours total)
- [ ] Communicator location
- [ ] Start up & transfer
- [ ] Exit sign illumination
- [ ] Safety indications
- [ ] Shutdown per NFPA 110
- [ ] Emergency egress lighting
- [ ] Fire alarm paging & phones
  - Complete  

### SIGNAGE:
- [ ] Evacuation signs
- [ ] Tactile exit signs
- [ ] Exit route signs
- [ ] Room numbers
- [ ] Max occupancy signs
  - Complete  

### MISCELLANEOUS:
- [ ] Interior finishes
- [ ] Escape Windows
- [ ] Fire-treated, retardant wood
- [ ] Knock Out boxes
- [ ] Portable fire extinguishers
- [ ] Fire extinguisher in kitchens
- [ ] Building address
- [ ] 800MHz Radio testing complete
  - Complete  

---

DCFM Approval