



COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
BUILDING & SAFETY DIVISION

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ENERGY, MECHANICAL AND PLUMBING
CODES CHECKLIST

The following list shall be checked/marked by the applicant in order to determine whether a plan check is required for energy, mechanical code and/or plumbing code by the Mechanical Section.

It is the responsibility of the applicant, engineer, architect, and/or contractor to mark the appropriate items below:

Property Address:

Property Title:

Applicant Name:

Applicant Phone Number:

I. Plumbing Code

1. The following plumbing systems require complete plumbing code plan check:
 - Any new potable water service or new water branch of 2" or larger.
 - Any new gas service or new gas branch of 2" or larger.
 - New drainage system with more than 216 fixture units.
 - Any multi-building development on a single lot where the total drainage fixture load exceeds 216 drainage fixture units on a common private sewer.
2. The following individual plumbing systems shall be reviewed independently:
 - Any medium or high-pressure gas system.
 - Any seismic gas shut off valve not listed by the Mechanical Section (See attached list.)
 - Any combination waste and vent system.
 - Roof drainage system within the building with a roof area greater than 6,000 Sq ft.
 - Chemical waste system.
 - Plumbing installation in a State licensed health care facility (e.g.: Dialysis Center Clinics.)

- Gray water or Rainwater Catchment Systems per Chapter 15, 16 or 16A.
- Solar hot water heating systems.
- Running a sewer lateral through an abutting lot.

II. Mechanical Code

1. The following mechanical systems require complete mechanical Code plan check:
 - New or replaced systems with aggregate comfort heating or comfort cooling input capacity of greater than 500,000 BTU/hr.
 - New or replaced systems using Group A2L refrigerants for comfort cooling in non-residential buildings.
 - New or replaced systems using Group A2L refrigerants for comfort cooling in residential buildings as determined by the Residential A2L Determination Plan Check List.
2. The following individual mechanical systems shall be reviewed independently:
 - Ventilation for automobile parking and repair garages.
 - Stairway pressurization systems.
 - Smoke control systems.
 - Food processing establishments with Type I or II hood(s).
 - Product conveying systems (e.g.: dust collection system, fume hoods, etc.)
 - Ventilation for a State licensed health care facility (e.g.: Dialysis Center Clinics.)
 - Refrigeration systems requiring a refrigeration machinery room (e.g.: aggregate combined compressor horsepower of 100 or other than Group A1 refrigeration, etc.)

III. Energy Standards

The following conditions require energy plan review.

- All newly conditioned buildings and conditioned additions.
- All new tenant improvements (addition or alteration of heating and/or cooling systems to existing conditioned space or to buildings in which the envelope was previously approved for compliance with Energy Standards).
- All alterations to the building envelope between conditioned and unconditioned spaces.
- All newly installed or altered ductwork.
- Shell buildings constructed with envelope insulation for future conditioned space.

For ductwork only projects with total conditioned area less than 1,000 Sq ft, and occupant load less than 49, applicant may choose to submit the plans for plan review or file an Attachment-4.

ATTACHMENT

Please be advised that:

1. A plumbing permit must be obtained by a contractor licensed in the appropriate classification, or qualified installer for all the above-mentioned cases.
2. Plan review is required for:
 - a. All low pressure gas systems with SGSOV sizes smaller than the size of gas pipe immediately downstream of the by-pass "T".
 - b. All low pressure gas systems 2" or larger:
Exception: When VAGV-200 SGSOV is installed on an existing 2" or smaller gas system with no other change to the system.
 - c. All medium pressure gas systems equipped with a SGSOV.

Although it is not mandatory in the unincorporated areas of the County and the contract cities to install seismic gas shut off valves (SGSOV), it has become commonplace for applicants to install them in new and existing buildings.

Since SGSOV's restrict gas flow, it adds to the losses within the gas pipe system. Thus, the loss shall be considered when sizing the gas piping system. In sizing gas systems, pressure loss through the SGSOV shall be converted into equivalent length of straight pipe and added to the developed length of the actual gas pipe system. Pipes shall be sized based on this new equivalent length.

Following tables provide equivalent length for some of the listed SGSOV's.

Table of Equivalent Lengths for Gas Systems

Table 1: "CALIFORNIA, AKA: KOSO, or PACIFIC SEISMIC PRODUCTS" Earthquake Activated Gas Shut-Off Valves

Model	Size (in.)	Equivalent Length (ft.) of pipe (same nominal size as a SGSOV)	Max. Pressure (psi)
300	3/4	3	7
301	1	3	7
302	1-1/4	4	7
303	1-1/2	5	7
310	3/4	3	60
311	1	3	60
312	1-1/4	4	60
313	1-1/2	5	60
314	2	5	60
314F	2	5	60
318	2 1/2	8	60
318F	2-1-2	8	60
315	6	10	60
315F	3	10	60
316	4	13	60
316F	4	13	60
317F	6	13	60
319F	8	9	60

Table 2: "LITTLE FIREFIGHTER" Earthquake Activated Gas Shut-Off Valves

Model	Size (in.)	Equivalent Length (ft.) of pipe (same nominal size as a SGSOV)	Max Pressure (psi.)
AGV-075	3/4	4	5
AGV-100	1	3	5
AGV-125	1-1/4	5	5
AGV-150	1-1/2	5	5
AGV-200	2	15	5
AGV-200HP	2	15	60
VAGV-075	3/4	3	10
VAGV-100	1	10	10
VAGV-125	1-1/4	75	10
VAGV-125HF	1-1/4	4	2
VAGV-150	1-1/2	6	2
VAGV-200	2	40	2
NAGV-075	3/4	3	10

NAGV-100	1	9	10
NAGV-125	1-1/4	16	10
AGV-250	2-1/2	4	60
AGV-300	3	5	60
AGV-400	4	12	60

Table 3: "FAY" Earthquake Activated Gas Shut-Off Valves

Model	Size (in.)	Equivalent Length (ft.) of pipe (same nominal size as a SGSOV)	Operating Pressure (psi)
FM-20	3/4	1.9	7
FM-S200	3/4	5.6	7
FM-S201	3/4	5.6	7
FM-25	1	4.2	7
FM-S250	1	22.5	7
FM-S251	1	22.5	7
FM-252	1	4.2	60
FM-253	1	4.2	60
FM-32	1-1/4	13.3	7
FM 321	1-1/4	13.3	60
FM 322	1-1/4	13.3	60
FM 323	1-1/4	13.3	60
FM-40	1-1/2	12.8	7
FM-401	1-1/2	12.8	7
FM-402	1-1/2	12.8	60
FM-403	1-1/2	12.8	60
FM-50	2	42.4	7
FM 501	2	42.4	7
FM-502	2	42.4	60
FM-503	2	42.4	60

All projects with gas pipe size 2 inch or larger and projects with medium or high pressure (any gas pipe size) using SGSOV's shall be submitted to Mechanical Section for plan review. Additionally, projects with proposed SGSOV's smaller than the gas line size shall also be submitted to the section.

All low-pressure gas system smaller than 2 inch with line size SGSOV shall be reviewed at District Office by the inspector using equivalent length method as described previously.