



DEPARTMENT OF FORESTRY AND FIRE PROTECTION

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**Residential Fire Sprinkler Installation Task Force
MINUTES
Thursday, May 21, 2009**

MEMBERS PRESENT:

Darren Drake, NorCal Fire Prevention Officers (Co-chair)
Ernie Paez, CAL FIRE, OSFM (Co-chair)
Jim Bollier, Nor Cal Fire Prevention Officers
Todd Emery, American Fire Sprinkler Association
Steve Hart, Consultant
Richard Hinrichs, California Department of Public Health*
David Hoover, Design Professional*
Clifford Hunter, Fire Districts Association
Bruce Lecair, SoCal Fire Prevention Officers
Steve Leyton, Design Professional
Ian Mac Donald, SoCal Fire Prevention Officers
Jim McGowan, Housing & Community Development
Bob Raymer, California Building Industry Association
Kevin Scott, International Code Council*
Mike Stewart, Sacramento Metro Fire Department
Byron Weisz, American Fire Sprinkler Association
Morgana Yahnke, Nor Cal Fire Prevention Officers

MEMBERS ABSENT:

Phil Alves, Sprinkler Fitters Association of California
Ray Bizal, National Fire Protection Association
Laura Blaul, SoCal Fire Prevention Officers
Heather Collins, California Department of Public Health
Doug Hensel, Housing & Community Development
Stephen Kiefer, California Building Officials
Tom McKinnon, American Fire Sprinkler Association
Mark Peterson, National Fire Sprinkler Association
Philip Raya, National Fire Sprinkler Association
Scott Seegmiller, Sprinkler Fitters Association of California
Billie Tribbett, Manufactured Housing Institute
Representative, League of California Cities

GUESTS/INTERESTED PARTIES:

Dale Evenson, Riverside County Fire*
Becky Fraser, California Building Officials*

STAFF:

Tonya Hoover, CAL FIRE, Assistant State Fire Marshal
Kevin Reinertson, CAL FIRE, OSFM, Code Development
Judy Bankert, CAL FIRE, OSFM, Staff Support

**via telephone conference call*

INTRODUCTIONS:

Darren Drake opened the meeting at 10:05 a.m., and self introductions were made by all present and on the conference telephone call.

APPROVAL OF MINUTES:

Darren Drake asked if there were any changes that needed to be made to the minutes from the meeting held May 4, 2009, and there were no changes.

SUBCOMMITTEE REPORTS

- **Local Issues Subcommittee Report**

Morgana Yahnke went over her subcommittee's report which is reproduced below. Morgana said she was surprised at the amount of agreement she found at the local level on the issues surrounding the implementation of residential fire sprinklers.

Purpose of task force

The purpose of this task force is to provide information and suggested recommendations to the State Fire Marshal on the installation of residential fire sprinkler systems in one and two family dwellings and town homes, and to recommend strategies for adoption of the 2009 International Residential Code. This is in preparation for a statewide residential fire sprinkler requirement for new construction. This particular subcommittee studied the issues that may arise at the local level for the authorities having jurisdiction, as well as the design, development and construction industries.

Authorities Having Jurisdiction

Recommendation: Individual resources vary greatly by jurisdiction. The taskforce is recommending that early conversation/coordination occurs between the building and fire officials. This collaboration should determine what process will best suit their constituents by taking all of the following issues into consideration:

- How much residential development is anticipated and at what pace will it occur?
- Which division/department (building or fire) is better equipped to facilitate this portion of the building process, from plan review through the building final?
- What process provides the most efficiency for the reviewing authority from an economic and time-management perspective?
- What process provides the most efficiency for the designer/developer/contractor?
- How user-friendly is the permit process?
- Is there current, relevant information available on a website or in a publication that is easily accessible?
- Is the application itself on a website?
- Are the fees appropriate for the staff time associated with the process – from beginning to end?

Local amendments and consistency

Recommendation: The fewer amendments the better. Those that are absolutely necessary should be based upon specific local conditions relative to climatic, topographical, geological or resource constraints (access and water supply always being a consideration). Some specific recommendations include:

- Coordinate requirements with surrounding jurisdictions. Consistency statewide will be very difficult to achieve but even on a countywide level it will be extremely helpful to developers and contractors.
- Develop written standards for this process wherever possible – again the same standard for as wide a geographic area as possible is preferable. This includes the guidelines developed by this taskforce for "Working Plan Submittals".

It should be noted here that an informal internet survey was conducted by this subcommittee. Local AHJ's were asked several questions pertaining to their local requirements. It was demonstrated that 87% of the jurisdictions are requiring automatic sprinklers in garages and 92% are requiring a water flow alarm. Both of these requirements are above the base code requirements for residential systems. A decision should be made by the SFM's office whether to try to encourage these jurisdictions to drop their local amendments or to amend NFPA 13D in California to include these specific additions.

Note: The survey is reproduced below following this subcommittee report. Phone numbers and email addresses were removed so that the survey could fit in this Word document. The entries highlighted in yellow are those that answered "Yes" to the question "Local testing or maintenance?" The other highlighting is to make the chart easier to read.

Inspection, testing and maintenance

Recommendation: At this time, there are very few local standards for ongoing inspection, testing or maintenance of residential sprinkler systems in one and two family dwellings. Further study will be necessary before any recommendations can be made for statewide standards in this area.

Summary

Members of this committee represented local jurisdictions, design, development and construction professionals. The group was largely in agreement on most of the issues including leaving the local processes to the individual jurisdictions, minimizing amendments to the base code, developing written standards for plan submittal and review, and overwhelmingly, for consistency amongst authorities having jurisdiction. Several options were suggested to address the issues concerning ongoing inspection, testing and maintenance of residential systems. It became obvious that whatever methods are chosen, they must be enforceable and sustainable based upon the number of housing units anticipated to be affected by these regulations. Training and education is seen as a key component for all parties involved in this process, including (and possibly most importantly), the homeowners.

**CSFM RESIDENTIAL SPRINKLER ADVISORY TASKFORCE
LOCAL AHJ SURVEY - MAY 2009**

A/S in the garage?		A local water flow alarm?		Local insp, testing or maint.?		If you answered "Yes" to question #3, what do you require?	Name	Jurisdiction
	No	Yes			No		Sean Daugherty	Long Beach Fire Department
Yes		Yes			No	We only allow NFPA 13D systems in SFD and not townhomes. Thus the maintenance requirement is only placed upon the homeowner. We do not conduct system inspections on SFD. Since our townhomes and condos are equipped with full NFPA 13 systems the standard maintenance requirements apply.	Amber Anderson	Cosumnes CSD Fire Department
Yes		Yes		Yes		Sonoma County has produced a Standard to cover these topics.	John Zanzi, fire chief	sebastopol fire department
Yes		Yes			No	Whatever would be required in NFPA 25, 2006 CAL. EDTN.	JUSTIN H. BEAL	CITY OF FRESNO FIRE
Yes		Yes			No		David Reade	City of Monterey
Yes		Yes			No		Scott Moon	Santa Rosa Fire Department
	No	Yes			No	There is a basic inspection; 1. to make sure all the sprinklers are present and not painted, 2. open the inspector's test valve and test the water flow alarm.	Tim Annis	Davis Fire
	No	Yes			No	Acceptance testing is per the NFPA 13D standard. Hydrostatic test per manufacturers standard or 13D (whichever is most restrictive), visual rough inspection and final.	Michael Mentink	Moraga-Orinda Fire District
Yes		Yes			No		Sandie Hastings	Torrance Fire Department
	No		No		No		Scott McMillan	Alameda County Fire - City of San Leandro
	No		No		No		Greg Granados	Sac Metro Fire
Yes		Yes			No	rough and hydro and final inspection required before occupancy	Jeff Davidson	Mill Valley Fire
Yes		Yes			No	All of the NFPA 25 requirements apply to the single/two family residences.	Thom Heller	Mammoth Lakes Fire Protection District

A/S in the garage?		A local water flow alarm?		Local insp, testing or maint.?		If you answered "Yes" to question #3, what do you require?	Name	Jurisdiction
Yes		Yes			No		Rocque J. Yballa	Central County Fire Department
Yes		Yes			No	Only a "final" inspection for the initial installation	Roger SPrehn	Corte Madera
	No		No		No		Michael L. Payton	City of Modesto
Yes		Yes			No		Vernon Brown	Rumsey Rancheria Fire Department
Yes		Yes			No		Vernon Brown	City of Lincoln
Yes		Yes			No		Vernon Brown	City of West Sacramento
Yes		Yes			No	Underground Flush Overhead Hydro Final with covers off.	Clayton Jolley	Coastside Fire District/CALFIRE
Yes		Yes						
Yes		Yes			No		Scott Alber	Marin County
Yes		Yes			No		Bob Scott-Fire Marshal	Encinitas Fire Dept
Yes		Yes			No	A rough in pressure test and a final for water flow bell.	Tom Peterson	Atascadero City Fire
	No	Yes			No		Brian Weidman	Long Beach Fire Department
Yes		Yes			No	Only during the rough-in and hydro and during the sprinkler final inspections. The owner is sometimes left with maintenance information from the contractor.	Jim Powderly	Chino Valley Fire District
Yes		Yes			No		Ian MacDonald	City of Orange
Yes		Yes			No		Jim Dias	Aptos/LaSelva Fire Protection District
Yes		Yes			No		Tolan Dworak	City of Lincoln Fire
Yes		Yes			No		Mark Latham	City of Salinas Fire Department
Yes		Yes			No		Ray Zachau	South Lake Tahoe Ca
Yes		Yes			No		S. Hyink	Redondo Beach
Yes		Yes			No	We provide pamphlet from Sprinkler industry which explains testing/inspecting	Greg O'Sullivan	Templeton Fire Department
Yes		Yes			No		Rick Swan	CAL FIRE/San Luis Obispo County Fire
Yes		Yes			No	1). Main system control valve to be indicating, above grade and installed prior to the domestic split. 2) Pilot sprinkler in the attic if fuel-fired equipment is present 3). Spare head box with wrench in garage	Jaymae Wentker	Mountain View Fire Department
Yes			No		No	Rough inspection and final inspection, no futher testing is required.	Les Howitt - Deputy Fire Marshal	City of Highland
Yes		Yes			No		Jeff Sanders	City of Manhattan Beach
Yes		Yes			No	rough and final	Tom Christopher	laguna Beach Fire

A/S in the garage?		A local water flow alarm?		Local insp, testing or maint.?		If you answered "Yes" to question #3, what do you require?	Name	Jurisdiction
Yes		Yes			No		Gordon Simpkinson	Palo Alto Fire Department
Yes		Yes			No		Darren Drake	Napa FD
Yes		Yes			No	Only acceptance hydro, rough in / visual during construction. Waterflow test during final walkthrough.	David Downing	Millbrae Fire Department
Yes		Yes			No	Only during the installation phases. Nothing once finalized.	Gareth Harris	Lake Valley Fire Protection District
Yes		Yes			No	permit by City and inspection of work by F.D.; maintenance is per 13D, not under active enforcement by F.D.	Don Andrews	Oxnard Fire Dept
Yes		Yes		Yes		Water Department checks the double check each year	Scott Haberle, Fire Battalion Chief	Monrovia Fire Department
Yes		Yes			No		Mark Krikorian	Arcadia
Yes		Yes			No		Fred Manding	Lathrop-Manteca Fire Protection District
Yes		Yes			No		Jackie Bretschneider	Gilroy
Yes		Yes			No	plan review, rough pipe, flow test, central station dispatch test & final trim.	Jim Langhorne	Montecito Fir Prot. Dist.
Yes		Yes			No		Clifford F Hunter	Rancho Santa Fe Fire Protection District
Yes		Yes			No	Rough piping inspection. One and Two-head flow test. Final inspection.	Ed Jestes	City of Redding Fire Department
Yes		Yes			No	After plan review: 1. Rough inspection and hydro. 2. Final inspection. 3. Maintain the system per SFM requirements.	Tom prows	City of Morro Bay, CA
Yes		Yes			No		Mark Ramos	City of Santa Cruz
Yes		Yes		Yes		Resale inspection and compliance prior to close of escrow. New const plans and inspections prior to final of home	Russ Cole	City of Woodland Fire Department
Yes		Yes			No	We require that the sprinkler contractors provide an operations and maintenance manual to the homeowner, or post one at the spare head box. We do not verify that maintenance is done once the home is turned over to the homeowner.	Robert Marshall	City of Gilroy
Yes		Yes			No		Ron Barney	Tiburon Fire Protection District
Yes		Yes			No		Fire Marshal/Battalion Chief Kurt Johnson	Montebello Fire Department
Yes		Yes			No		Michael Cully	Colma Fire Protection District

A/S in the garage?		A local water flow alarm?		Local insp, testing or maint.?		If you answered "Yes" to question #3, what do you require?	Name	Jurisdiction
	No	Yes		Yes		ONLY WHEN THE TOTAL SQ FOOTAGE EXCEEDS 5000 sq ft.	Joe Zuccaro	Victorville FD
Yes		Yes			No		Don Berry	San Gabriel Fire Department
Yes			No		No	Question #1 - Sprinklers in garage only if there is a living space above the garage. Question #3 - Inspection and testing at the permit stage, no Fire Prevention maintenance inspections afterwards.	Jeff Schlesinger	Sunnyvale (Department of Public Safety)
Yes		Yes			No	Inspections during construction/final. Going to be looking at addressing maintenance testing . Not in place yet.	Tim Gose - Deputy Fire Marshal	CAL FIRE - Santa Cruz
Yes		Yes			No		Johnathan Hurst	City of Arroyo Grande
Yes		Yes		Yes		5year with results sent to fire	Mark Mondragon Fire Marshal	Cypress & Carmel Highlands Fire Districts
	No		No		No		Adria Paesani	Fountain Valley Fire Department
Yes		Yes			No	hydro/rough and final inspections	Ed tubbs	Dixon
Yes		Yes			No		John Mapes	Foster City Fire Dept.
Yes		Yes			No	Homeowner to take responsibility for maintenance.	Doug Williams	Rincon Valley FPD
Yes		Yes			No	We do on over head and a hydo test at frame and a final inspection to make sure the min. psi is meet. We do not have mainteance requirements for Single family homes	Marsha Larsen	San Miguel Fire Protection District
Yes		Yes			No		Luis Da Silva	South San Francisco
Yes		Yes			No	OUTSIDE BELL, AND "HOMEOWNERS CARE AND MAINTENANCE MANUAL".	Jason Nailon	Apple Valley Fire Protection District
62	9	65	6	5	66	(Total responses)		
87%	13%	92%	8%	7%	93%	(Percent of total responses)		

As back up on this survey, Morgana Yahnke is going to follow up on the "Yes" answers to the third question and get any written standards or policies for the testing and maintenance of residential fire sprinklers.

Bob Raymer commended State Fire Training (SFT) for the training they previously did on the Wildland-Urban Interface issue and suggested a possible teaming of SFT and CALBO Training Institute to produce a training DVD. Steve Leyton mentioned that NFSA and AFSA have very successfully implemented telephone seminar programs which can range from 90 minutes to 4 hours. Response from participants has been very favorable and the cost benefit is extraordinary—which is very important considering California's current financial situation.

Bob also pointed out that one of the key issues for builders is uniformity. If local jurisdictions could keep their modifications of the regulations to a minimum, it would result in significant cost savings to the builders and buyers. He added that if there were some central web location with links to local jurisdictions and local requirements, it would be very helpful. Knowing in advance who will do the plan checking—whether fire officials or building departments—would be helpful also.

Kevin Reinertson gave the group an update on the 2010 codes and the rule-making packages. He said we are on track to submit the Plumbing, Mechanical, and Electrical codes at the beginning of June and the Building, Fire, and

Residential Codes at the end of June. August 10 and 11 will be our Code Advisory Committee hearings for the Building, Fire, and Other Committee. Late August will be the beginning of the 45 day comment period. Commission action is slated for January 11, 2010, with publishing on July 4, 2010—with an effective date of January 1, 2011. He also informed the group that justification for code changes can be modified or added to after the deadlines. Kevin also explained how the process will work after this task force completes its work and makes recommendations. Steve Leyton felt it would be advantageous to have the task force as a whole work on the justifications—rather than the individual subcommittees—and Ernie Paez said that was a good point.

- **Cost Incentives Subcommittee Report**

Ian Mac Donald gave this report to the group. He began with a brief overview of the Home Fire Sprinkler Cost Assessment (Final Report) which was prepared by Newport Partners and sponsored by The Fire Protection Research Foundation. Ten case study communities were selected—nine in the United States and one in Canada. The ten communities offered diversity in terms of sprinkler ordinance status, geographic location, housing style, and sprinkler system variables such as the type of piping material and the water supply source (municipal or on-site). For each of these communities, three building plans were collected from builders and sprinkler installers—along with sprinkler system cost data and other related cost and system information. The study found the cost of sprinkler systems to the homebuilder ranged from \$0.38 to \$3.66 per sprinklered square foot—with the average cost being \$1.61 per sprinklered square foot.

Ian's subcommittee used this document as a base document for their group, and a copy of the 36-page report can be found at: <http://www.nfpa.org/assets/files//PDF/Research/FireSprinklerCostAssessment.pdf> .

Ian also passed out and discussed the following subcommittee report to the group:

Residential fire sprinkler systems add an additional cost to the construction of homes. Theoretically, the total additional cost of the systems is borne by the home buyer in the form of the purchase price of the home. Practically, though, the housing industry has expressed concern that less people will choose to buy newly constructed homes as the price of new housing increases, instead choosing to occupy existing housing. The exact costs of the installation of residential fire sprinkler systems for all new construction in 1- and 2-family dwellings and townhouses (hereafter referred to as "homes") is unknown due to a new state of supply and demand, new technologies that are bound to emerge, and the increased sales volume of materials. However, it is reasonable to state that there will be an increased cost associated with the installation of these systems, and that a cost incentive is a reasonable response to that cost increase.

Cost Determination

There is difficulty in forecasting the actual cost of the installation of residential fire sprinkler systems in new construction for the next five years, let alone the current cost. Difficulty in establishing an accurate, agreed-upon cost is the number and nature of the cost factors:

- *The evolution of fire sprinkler materials technology.*
- *Installation of multipurpose systems instead of systems with separate domestic and sprinkler distribution systems, splitting after the meter -- typically immediately inside the home.*
- *Increased sales volume of materials. Increased sales should translate into increased competition as the market expands, and decreased one-time costs -- such as listing costs -- incurred by manufacturers.*

The Fire Protection Research Foundation, principally sponsored by the National Fire Protection Association (NFPA), conducted a study to more accurately determine the cost of fire sprinkler installation in new construction nationwide. The average cost was \$1.61 per sprinklered square foot, not including offsets or credits (5), derived from costs ranging from \$.038 to \$3.66. The average homeowner insurance reduction due to the presence of the automatic fire sprinkler system was 7% (29).

There is an economy of scale that needs to be applied to the installation of fire sprinkler systems. One-time costs for tracts include project estimation, drawing of plans, and the plan review process (including plan review). Also, materials can often be purchased at better negotiated rates when purchased in bulk. Many, if not most, homes today are built in tracts as opposed to the traditional single custom home model.

Some savings can be achieved by standardizing plans. Standardization is the equivalent of creating "boiler plate" sprinkler system designs for homes to be constructed by one or more construction companies in more than one jurisdiction. Unique jurisdictional sprinkler ordinances defeat the cost savings intended by the drawing of standardized plans, since the plans have to be revised to a varying degree for each unique ordinance. The building industry would like to see standardization to the greatest degree possible. According to the industry, there are major design firms in San Diego, OC, LA and the Bay

Area that do design work for just about every county in the State. Local ordinance "add-ons" are significant hurdles to the use of standardized plans.

Additionally, many, if not most, of the homes built in California are done so as "production style" projects, wherein a project utilizes 5-7 individual model designs from which prospective buyers can choose. Most local jurisdictions review the various model designs in a tract once for each model design (unless one or more changes to the original design have been made). For that matter, state statute effectively requires that the fees charged by a local jurisdiction are reasonably related to the services for which those fees are collected, meaning that it is unlawful for a local jurisdiction to charge for an administrative service which is not rendered. However, the building industry feels that some jurisdictions charge more money than the review costs the jurisdiction to perform, with many jurisdictions using different methodologies to calculate those fees. Also, some in the building industry hesitate to file complaints, fearing that current or future projects within a given jurisdiction will be overly scrutinized to complicate and delay the project as retribution. These issues are not necessarily central or unique to the installation of residential fire sprinklers, but should be addressed in the appropriate venue.

Bearer(s) of Cost

This section assumes that a home builder is purchasing property, constructing homes, and then selling it to a buyer:

Home builders are responsible for all costs for home construction. At some point after the various regulatory agencies issue approval for construction, the house is then sold to the buyer. The amount of money the buyer pays for the house in excess of construction (labor and material) costs, land purchase cost, financing and local fees is the profit realized by the builder.

As a side note, financing of a project is very important and this becomes a major issue when significant delays take place after a project has begun. More importantly, local fees -- including but not limited to school, water, sewer, parks, and transportation fees -- have become a major component of housing costs over the past 15 years. To discuss a case in point, the City of Rancho Cordova -- a Sacramento suburb -- now charges in excess of \$100,000 in local fees for every new home. A new home in Rancho Cordova sells for \$250,000-\$350,000. The California Building Industry Association contends that there are a great many jurisdictions charging fees at the same rate, or higher, than does Ranch Cordova.

In the case of adding an automatic fire sprinkler system to the minimum required construction features of a home, home builders have expressed a concern that buyers' ability to afford homes is not increased because the cost of the home is increased. Many buyers buy what they can afford. That line of reasoning deducts that home prices are increased by the addition of sprinkler systems, buyers pay the same price because it is all the buyers can afford, so the cost of the systems is deducted from the builder's profit margin.

Presuming that the builder is able to negotiate a higher price for the house based upon the addition of the fire sprinkler system, the buyer then bears that portion (or totality) of the cost. Virtually all buyers take out a mortgage to pay for homes. The cost of the home, including the cost of the sprinkler system, is then amortized over the life of the loan. At that point, the real cost of the fire sprinkler system is the monthly, amortized cost of the system less any homeowners insurance credit received as a result of the system installation.

Mitigation of Cost

Residential fire sprinklers increase fire life-safety in the home. As a collateral benefit, fire sprinklers also often save property by confining, and sometimes extinguishing, the fire itself. This collateral benefit reduces the chance of fire extension within the home, and the fire lighting adjoining, exposed homes on fire.

The California Building Code required a three-foot side yard setback for homes for many years. The 2007 California Building Code increased the setback requirement to five-feet, increasing the level of safety and property protection. The existing fire loss data in California is virtually exclusively based upon the three-foot setback data. It is reasonable to state that the installation of the automatic fire sprinkler systems in homes will achieve the same safety and property protection benefit as the five-foot setback when fires start within the sprinklered areas of homes. In instances where fires start on the exterior of structures, in the attics, or in wildland-urban interface (WUI) areas, the fire loss data will remain unchanged to the historical fire loss data in California.

Builders are able to reduce lot widths by four feet (two feet from each side lot line) with this setback reduction. The reduction will allow builders to maximize the number of lots when dividing a tract into buildable lots. The market trend is for buyers to purchase larger houses on smaller lots. The reasons for this trend are beyond the scope of this report.

Summary

The inclusion of a residential fire sprinkler system poses an additional cost to the purchase price of a home. The builder and/or the buyer bears this cost. The proposed cost mitigation is reasonable for several reasons, including the reasonable assumption of fire losses, based upon historical fire loss data for the proposed reduction.

There was extensive discussion regarding the variation of fees assessed by the local jurisdictions. It was noted that the setback reduction from 5 feet to 3 feet could ultimately reduce the net cost of construction due to being able to build 13 homes where 12 would have previously been allowed to be built. With the ability to build an additional home, the cost of the fire sprinklers for those homes could be covered and—in some cases—mean increased profit for the builder.

- **Statutes and Regulations Subcommittee Report**

Steve Hart gave his subcommittee's report in the form of questions and the appropriate code section for the answer. The following is the report reproduced in its entirety.

8. In a multi-purpose system, will the traces of lead in the sprinkler heads be a problem with the domestic water?

Answers:

116875.

(a) No person shall use any pipe, pipe or plumbing fitting or fixture, solder, or flux that is not lead free in the installation or repair of any public water system or any plumbing in a facility providing water for human consumption, except when necessary for the repair of leaded joints of cast iron pipes.

(b) No person shall introduce into commerce any pipe, pipe or plumbing fitting, or fixture, that is not lead free, except for a pipe that is used in manufacturing or industrial processing.

(c) No person engaged in the business of selling plumbing supplies, except manufacturers, shall sell solder or flux that is not lead free.

(d) No person shall introduce into commerce any solder or flux that is not lead free unless the solder or flux bears a prominent label stating that it is illegal to use the solder or flux in the installation or repair of any plumbing providing water for human consumption.

(e) For the purposes of this section, "lead free" means not more than 0.2 percent lead when used with respect to solder and flux and not more than 8 percent when used with respect to pipes and pipe fittings. With respect to plumbing fittings and fixtures, "lead free" means not more than 4 percent by dry weight after August 6, 2002, unless the department has adopted a standard, based on health effects, for the leaching of lead.

(f) (1) All pipe, pipe or plumbing fittings or fixtures, solder, or flux shall be certified by an independent American National Standards Institute (ANSI) accredited third party, including, but not limited to, NSF International, as being in compliance with this section.

(2) (A) The certification described in paragraph (1) shall, at a minimum, include testing of materials in accordance with the protocols used by the Department of Toxic Substances Control in implementing Article 10.1.2 (commencing with Section 25214.4.3) of Chapter 6.5 of Division 20.

(B) The certification required pursuant to this subdivision shall not interfere with either the department's exercise of its independent authority to protect public health pursuant to this section, or the Department of Toxic Substances Control's exercise of its independent authority to implement Article 10.1.2 (commencing with Section 25214.4.3) of Chapter 6.5 of Division 20.

(3) It is the intent of the Legislature that this subdivision only provide guidance and assistance to the entities that use an independent ANSI accredited third party to demonstrate compliance with this section. Any tests developed by an independent ANSI accredited third party in accordance with this subdivision shall have no weight of authority under California statute.

(4) Notwithstanding paragraph (1), the department shall retain its independent authority in administering this article.

(g) This section shall remain in effect only until January 1, 2010, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2010, deletes or extends that date.

116875. (a) No person shall use any pipe, pipe or plumbing fitting or fixture, solder, or flux that is not lead free in the installation or repair of any public water system or any plumbing in a facility providing water for human consumption, except when necessary for the repair of leaded joints of cast iron pipes.

(b) (1) No person shall introduce into commerce any pipe, pipe or plumbing fitting, or fixture intended to convey or dispense water for human consumption through drinking or cooking that is not lead free, as defined in subdivision (e). This includes kitchen faucets, bathroom faucets, and any other end-use devices intended to convey or dispense water for human consumption through drinking or cooking, but excludes service saddles, backflow preventers for nonpotable services such as irrigation and industrial, and water distribution main gate valves that are two inches in diameter and above.

(2) Pipes, pipe or plumbing fittings, or fixtures that are used in manufacturing, industrial processing, for irrigation purposes, and any other uses where the water is not intended for human consumption through drinking or cooking are not subject to the requirements of paragraph (1).

(3) For all purposes other than manufacturing, industrial processing, or to convey or dispense water for human consumption, "lead free" is defined in subdivision (f).

(c) No person engaged in the business of selling plumbing supplies, except manufacturers, shall sell solder or flux that is not lead free.

(d) No person shall introduce into commerce any solder or flux that is not lead free unless the solder or flux bears a prominent label stating that it is illegal to use the solder or flux in the installation or repair of any plumbing providing water for human consumption.

(e) For the purposes of this section, "lead free" means not more than 0.2 percent lead when used with respect to solder and flux and not more than a weighted average of 0.25 percent when used with respect to the wetted surfaces of pipes and pipe fittings, plumbing fittings, and fixtures. The weighted average lead content of a pipe and pipe fitting, plumbing fitting, and fixture shall be calculated by using the following formula: The percentage of lead content within each component that comes into contact with water shall be multiplied by the percent of the total wetted surface of the entire pipe and pipe fitting, plumbing fitting, or fixture represented in each component containing lead. These percentages shall be added and the sum shall constitute the weighted average lead content of the pipe and pipe fitting, plumbing fitting, or fixture.

(f) For the purposes of paragraph (3) of subdivision (b), "lead free," consistent with the requirements of federal law, means not more than 0.2 percent lead when used with respect to solder and flux and not more than 8 percent when used with respect to pipes and pipe fittings. With respect to plumbing fittings and fixtures, "lead free" means not more than 4 percent by dry weight after August 6, 2002, unless the department has adopted a standard, based on health effects, for the leaching of lead.

(g) (1) All pipe, pipe or plumbing fittings or fixtures, solder, or flux shall be certified by an independent American National Standards Institute (ANSI) accredited third party, including, but not limited to, NSF International, as being in compliance with this section.

(2) (A) The certification described in paragraph (1) shall, at a minimum, include testing of materials in accordance with the protocols used by the Department of Toxic Substances Control in implementing Article 10.1.2 (commencing with Section 25214.4.3) of Chapter 6.5 of Division 20.

(B) The certification required pursuant to this subdivision shall not interfere with either the department's exercise of its independent authority to protect public health pursuant to this section, or the Department of Toxic Substances Control's exercise of its independent authority to implement Article 10.1.2 (commencing with Section 25214.4.3) of Chapter 6.5 of Division 20.

(3) It is the intent of the Legislature that this subdivision only provide guidance and assistance to the entities that use an independent ANSI accredited third party to demonstrate compliance with this section. Any tests developed by an independent ANSI accredited third party in accordance with this subdivision shall have no weight of authority under California statute.

(4) Notwithstanding paragraph (1), the department shall retain its independent authority in administering this article.

(h) This section shall become operative on January 1, 2010. The requirement described in subdivision (g) shall not be construed in any manner as to justify a delay in compliance with the lead-free standard set forth in subdivision (e).

(H&S Code 116875)

116880. The department shall adopt building standards to implement Section 116875. The standards shall be adopted in accordance with Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code and shall be published in the State Building Standards Code located in Title 24 of the California Code of Regulations. The standards shall be enforced by the appropriate state and local building and health officials.

(H&S Code 116880)

Additionally:

25214.4.3. (a) Lead plumbing monitoring and compliance testing shall be undertaken by the department, as a part of the department's ongoing program for reducing toxic substances from the environment.

(b) For purposes of implementing this article, the department shall, based on its available resources and staffing, annually select not more than 75 drinking water faucets or other drinking water plumbing fittings and fixtures for testing and evaluation, including the locations from which to select the faucets, fittings, and fixtures, to determine compliance with Section 116875.

(c) In implementing this article, the department shall use test methods, protocols, and sample preparation procedures that are adequate to determine total lead concentration in a drinking water plumbing fitting or fixture to determine compliance with the standards for the maximum allowable total lead content set forth in Section 116875.

(d) (1) In selecting drinking water faucets and other drinking water plumbing fittings and fixtures to test and evaluate pursuant to this article, the department shall exercise its judgment regarding the specific drinking water plumbing fittings or fixtures to test.

(2) This article does not require the department's selection to be either random or representative of all available plumbing fittings or fixtures.

(3) The department shall acquire its samples of fittings and fixtures from locations that are readily accessible to the public at either retail or wholesale sources.

(e) The department shall annually post the results of the testing and evaluation conducted pursuant to this article on its Internet Web site and shall transmit these results in an annual report to the State Department of Public Health.
(H&S Code 25214.4.3)

9. Is there a distance a detached garage has to be away from a sprinklered home before it's not required to be sprinklered?

Answers:

Under the 2007 California Building Code, Section 310.1 defines one- or two-dwelling units and townhouses (not more than 3-stories above grade in height with a separate means of egress) are classified as Residential Group R-3 Occupancies.
(2007 CBC, Section 310.1)

Under the 2007 California Building Code., Section 312.1 defines carports and/or private garages are classified as Utility and Miscellaneous Group U Occupancies.
(2007 CBC, Section 312.1)

Note: Private garages and carports classified as Group U Occupancies shall not exceed 1,000 square feet in area or one story in height except as provided in 406.1.2 when used for storage of private or pleasure-type motor vehicles where no repair work is completed or fuel is dispensed are permitted to be 3,000 square feet when the following provisions are met:

1. For a mixed occupancy building, the exterior wall and opening protection for the Group U portion of the building shall be as required for the major occupancy of the building. For such a mixed occupancy building, the allowable floor area of the building shall be as permitted for the major occupancy contained therein.
2. For a building containing only a Group U Occupancy, the exterior wall shall not be required to have a fire-resistance rating and the area of openings shall not be limited when the fire separation distance is 5-feet or more.

(2007 CBC, Section 406.1.2)

Additionally:

Under the 2007 California Building Code, Section 704.3 states: **704.3 Buildings on the same lot.** For the purposes of determining the required wall and opening protection and roof-covering requirements, buildings on the same lot shall be assumed to have an imaginary line between them. Where a new building is to be erected on the same lot as an existing building, the location of the assumed imaginary line with relation to the existing building shall be such that the exterior wall and opening protection of the existing building meet the criteria as set forth in Sections 704.5 and 704.8.

Exception: Two or more buildings on the same lot shall either be regulated as separate buildings or shall be considered as portions of one building if the aggregate area of each building is within the limits specified in Chapter 5 for a single building. Where buildings contain different occupancy groups or are different types of construction, the area shall be that allowed for the most restrictive occupancy or construction.

(2007 CBC, Section 704.3)

704.5 Fire resistive rating. For other than high-rise buildings, Group A, E, H, I, L and R occupancies and other applications listed in Section 111 regulated by the Office of the State Fire Marshal, exterior walls shall be fire-resistance rated in accordance with Tables 601 and 602. The fire-resistance rating of exterior walls with a fire separation distance of greater than 5-feet shall be rated for exposure to fire from the inside. The fire-resistance rating of exterior walls with a fire separation distance of 5-feet or less shall be rated for exposure to fire from both sides.

(2007 CB, Section 704.5)

Therefore, when evaluating the criteria referenced above, the 2007 CBC (Sections 310.1, 312.1, 406.12, 704.3, 704.5, and Tables 601 and 602) the imaginary line between the R-3 (dwelling/townhouse) and U (carport/garage) would be 5-feet from either occupancy; thus the separation would need to be 10-feet between the R-3 and U Occupancy.

The following provisions are being proposed for the 2010 California Residential Code (CRC):

R302.6 Dwelling/garage or carport fire separation. The garage or carport shall be separated as required by Table R302.6. Openings in garage walls shall comply with Section R302.5. This provision does not apply to garage walls that are perpendicular

to the adjacent dwelling wall. A separation is not required between the dwelling and carport, provided the carport is entirely open on two or more sides and there are not enclosed areas above.
(2010 CRC, Section and Table R302.6)

**TABLE R302.6
DWELLING/GARAGE SEPARATION**

SEPARATION	MATERIAL
From the residence and attics	Not less than 1/2-inch gypsum board or equivalent applied to the garage side
From all habitable rooms above the garage <i>or carport</i>	Not less than 5/8-inch Type X gypsum board or equivalent
Structure(s) supporting floor/ceiling assemblies used for separation required by this section	Not less than 1/2-inch gypsum board or equivalent
Garages located less than 3 feet from a dwelling unit on the same lot	Not less than 1/2-inch gypsum board or equivalent applied to the interior side of exterior walls that are within this area

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

10. What is the criteria which defines an “Underground Regulation” and is used for the premise by which State Agencies are required to follow strict criteria for the adoption of Building Standards?

Answer:

11340. The Legislature finds and declares as follows:

- (a) There has been an unprecedented growth in the number of administrative regulations in recent years.
- (b) The language of many regulations is frequently unclear and unnecessarily complex, even when the complicated and technical nature of the subject matter is taken into account. The language is often confusing to the persons who must comply with the regulations.
- (c) Substantial time and public funds have been spent in adopting regulations, the necessity for which has not been established.
- (d) The imposition of prescriptive standards upon private persons and entities through regulations where the establishment of performance standards could reasonably be expected to produce the same result has placed an unnecessary burden on California citizens and discouraged innovation, research, and development of improved means of achieving desirable social goals.
- (e) There exists no central office in state government with the power and duty to review regulations to ensure that they are written in a comprehensible manner, are authorized by statute, and are consistent with other law.
- (f) Correcting the problems that have been caused by the unprecedented growth of regulations in California requires the direct involvement of the Legislature as well as that of the executive branch of state government.
- (g) The complexity and lack of clarity in many regulations put small businesses, which do not have the resources to hire experts to assist them, at a distinct disadvantage.

11340.1. (a) The Legislature therefore declares that it is in the public interest to establish an Office of Administrative Law which shall be charged with the orderly review of adopted regulations. It is the intent of the Legislature that the purpose of such review shall be to reduce the number of administrative regulations and to improve the quality of those regulations which are adopted. It is the intent of the Legislature that agencies shall actively seek to reduce the unnecessary regulatory burden on private individuals and entities by substituting performance standards for prescriptive standards wherever performance standards can be reasonably expected to be as effective and less burdensome, and that this substitution shall be considered during the course of the agency rulemaking process. It is the intent of the Legislature that neither the Office of Administrative Law nor the court should substitute its judgment for that of the rulemaking agency as expressed in the substantive content of adopted regulations. It is the intent of the Legislature that while the Office of Administrative Law will be part of the executive branch of state government, that the office work closely with, and upon request report directly to, the Legislature in order to accomplish regulatory reform in California.

(b) It is the intent of the Legislature that the California Code of Regulations made available on the Internet by the office pursuant to Section 11344 include complete authority and reference citations and history notes.
(Government Code 11340)

Additionally:

11340.5. (a) No state agency shall issue, utilize, enforce, or attempt to enforce any guideline, criterion, bulletin, manual, instruction, order, standard of general application, or other rule, which is a regulation as defined in Section 11342.600, unless the

guideline, criterion, bulletin, manual, instruction, order, standard of general application, or other rule has been adopted as a regulation and filed with the Secretary of State pursuant to this chapter.

(b) If the office is notified of, or on its own, learns of the issuance, enforcement of, or use of, an agency guideline, criterion, bulletin, manual, instruction, order, standard of general application, or other rule that has not been adopted as a regulation and filed with the Secretary of State pursuant to this chapter, the office may issue a determination as to whether the guideline, criterion, bulletin, manual, instruction, order, standard of general application, or other rule, is a regulation as defined in Section 11342.600.

(c) The office shall do all of the following:

- (1) File its determination upon issuance with the Secretary of State.
- (2) Make its determination known to the agency, the Governor, and the Legislature.
- (3) Publish its determination in the California Regulatory Notice Register within 15 days of the date of issuance.
- (4) Make its determination available to the public and the courts.

(d) Any interested person may obtain judicial review of a given determination by filing a written petition requesting that the determination of the office be modified or set aside. A petition shall be filed with the court within 30 days of the date the determination is published.

(e) A determination issued by the office pursuant to this section shall not be considered by a court, or by an administrative agency in an adjudicatory proceeding if all of the following occurs:

- (1) The court or administrative agency proceeding involves the party that sought the determination from the office.
- (2) The proceeding began prior to the party's request for the office's determination.
- (3) At issue in the proceeding is the question of whether the guideline, criterion, bulletin, manual, instruction, order, standard of general application, or other rule that is the legal basis for the adjudicatory action is a regulation as defined in Section 11342.600. (*Government Code 11340.5*)

And Finally:

11359. (a) Except as provided in subdivision (b), on and after January 1, 1982, no new regulation, or the amendment or repeal of any regulation, which regulation is intended to promote fire and panic safety or provide fire protection and prevention, including fire suppression systems, equipment, or alarm regulation, is valid or effective unless it is submitted by, or approved in writing by, the State Fire Marshal before transmittal to the Secretary of State or the Office of Administrative Law.

(b) Approval of the State Fire Marshal is not required if the regulation is expressly required to be at least as effective as federal standards published in the Federal Register pursuant to Section 6 of the Occupational Safety and Health Act of 1970 (P.L. 91-596) within the time period specified by federal law and as provided in subdivision (b) of Section 142.4 of the Labor Code, and as approved by the Occupational Safety and Health Administration of the United States Department of Labor as meeting the requirements of subdivision (a) of Section 142.3 of the Labor Code, unless the regulation is determined by the State Fire Marshal to be less effective in promoting fire and panic safety than regulations adopted by the State Fire Marshal.

(*Government Code 11359*)

There was some group discussion regarding “underground” regulations imposed by local jurisdictions and some of the problems they can cause.

• **Installation Subcommittee Report**

Steve Leyton gave his subcommittee’s report which included the following minutes from their meeting of May 19.

Attendance: Steve Leyton, PD&C, Chair	Byron Weisz, Cen-Cal Fire
Clifford Hunter, RSF Fire	Philip Raya, NFSA
Jim Bollier, Local 483	Tom McKinnon, Aegis Fire
Richard Hinrichs, CDPH	Todd Emery, Symons Fire Protection
Darren Drake, City of Napa	

Minutes-Taker: Terri Leyton, PD&C

- Roll Call, Steve L.
- Review/discussion of minutes from last meeting
- Accepted draft of working plans requirements – to be presented for discussion at overall task group meeting.
- Proposed amendments to CRC, NFPA 13D, 2007 ed. and proposed 313.3 (P2904): All attached garages to be protected:

TABLE R302.1(1)
EXTERIOR WALLS – DWELLINGS WITHOUT AUTOMATIC RESIDENTIAL FIRE SPRINKLER PROTECTION

Exterior Wall Element		Minimum Fire-Resistance Rating	Minimum Fire Separation Distance
Walls	(Fire-resistance rated)	1 hour tested in accordance with ASTM E 119 or UL 263 with exposure from both sides	<5 feet
	(Not fire-resistance rated)	0 hours	≥5 feet
Projections	(Fire-resistance rated)	1 hour on the underside	≥ 2 feet to 5 feet
	(Not fire-resistance rated)	0	5 feet
Openings in walls	Not allowed	N/A	< 3 feet
	25% Maximum of Wall Area	0 hours	3 feet
	Unlimited	0 hours	5 feet
Penetrations	All	Comply with Section <u>R317.3</u> <u>R302.4</u>	< 5 feet
		None required	5 feet

For SI: 1 foot = 304.8 mm.
 N/A = Not Applicable

TABLE R302.1(2)
EXTERIOR WALLS – DWELLINGS WITH AUTOMATIC RESIDENTIAL FIRE SPRINKLER PROTECTION

<u>Exterior Wall Element</u>		<u>Minimum Fire-Resistance Rating</u>	<u>Minimum Fire Separation Distance</u>
<u>Walls</u>	<u>(Fire-resistance rated)</u>	<u>1 hour tested in accordance with ASTM E 119 or UL 263 with exposure from both sides</u>	<u><3 feet</u>
	<u>(Not fire-resistance rated)</u>	<u>0 hours</u>	<u>≥3 feet</u>
<u>Projections</u>	<u>(Fire-resistance rated)</u>	<u>1 hour on the underside</u>	<u>≥ 2 feet to 3 feet</u>
	<u>(Not fire-resistance rated)</u>	<u>0</u>	<u>3 feet</u>
<u>Openings in walls</u>	<u>Not allowed</u>	<u>N/A</u>	<u>< 3 feet</u>
	<u>Unlimited</u>	<u>0 hours</u>	<u>3 feet</u>
<u>Penetrations</u>	<u>All</u>	<u>Comply with Section R302.4</u>	<u>< 3 feet</u>
		<u>None required</u>	<u>3 feet</u>

For SI: 1 foot = 304.8 mm.
N/A = Not Applicable

(406.1.4 item 1 CBC)

R302.5.1 Opening protection. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. ~~Other openings between the garage and residence shall be equipped with solid wood doors not less than 13/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 13/8 inches (35 mm) thick, or 20-minute fire-rated doors. Doors shall be self-closing and self-latching.~~

**TABLE R302.6
DWELLING/GARAGE SEPARATION**

SEPARATION	MATERIAL
From the residence and attics	Not less than 1/2-inch gypsum board or equivalent applied to the garage side
From all habitable rooms above the garage <u>or carport</u>	Not less than 5/8-inch Type X <u>Not less than 1/2-inch</u> gypsum board or equivalent
Structure(s) supporting floor/ceiling assemblies used for separation required by this section	Not less than 1/2-inch gypsum board or equivalent
Garages located less than 3 feet from a dwelling unit on the same lot	Not less than 1/2-inch gypsum board or equivalent applied to the interior side of exterior walls that are within this area

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

Note: Items in bold and underlined in this subcommittee report indicate proposed changes. Also, the paragraph below (R309.7) is proposed California code with the subcommittee's proposed changes in bold and underlined.

R309.7 Fire Sprinklers. Private **attached** garages **and carports with habitable space above** shall be protected by fire sprinklers ~~where the garage wall has been designed based on Table R302.1 (2).~~ Sprinklers in garages shall be connected to a system that complies with Section 313.3 or NFPA 13D. Garage sprinklers shall be residential sprinklers or quick-response sprinklers, designed to provide a density of 0.05 gpm/ft². Garage doors shall not be considered obstructions with respect to sprinkler placement.

Note: Kevin Scott suggested the proposed changes be worded "eCarports with habitable space above and Pprivate attached garages." Steve Leyton said that was a good suggestion.

P2904.1.1 Required sprinkler locations. Sprinklers shall be installed to protect all areas of a dwelling unit.

Exceptions:

- Attics, crawl spaces, and normally unoccupied concealed spaces that do not contain fuel-fired appliances do not require sprinklers. In attics, crawl spaces, and normally unoccupied concealed spaces that contain fuel-fired equipment, a sprinkler shall be provided above the equipment; however, sprinklers shall not be required in the remainder of the space.
- Clothes closets, linen closets and pantries not exceeding 24 square feet in area, with the smallest dimension not greater than 3 feet and having wall and ceiling surfaces of gypsum board.
- Bathrooms not greater than 55 square feet in area.
- ~~Garages; e~~Carports **with no habitable space above**; **open attached** exterior porches; unheated entry areas, such as mud rooms, that are adjacent to an exterior door; and similar areas.

Steve Leyton suggested the beginning of number 4 above be changed to "Detached Ggarages," and "garages" below be changed to "detached garages." There were no objections from the group.

13D.8.6.4* Sprinklers shall not be required in garages, open attached porches, carports **with no habitable space above**, and similar structures.

- Proposed amendments to CRC, NFPA 13D, 2007 ed. and proposed 313.3 (P2904): Alternative water supplies shall serve both domestic and sprinkler systems:

P2904.5.1 Water supply from individual sources. Where a dwelling unit water supply is from a tank system, a private well system, a pump, or a combination of these, the available water supply shall be based on the minimum pressure control setting for the pump.

P2904.5.2. Required capacity. The water supply shall have the capacity to provide the required design flow rate for sprinklers for a period of time as follows:

1. 7 minutes for dwelling units one story in height and less than 2,000 square feet in habitable area
2. 10 minutes for dwelling units two or more stories in height or equal to or greater than 2,000 square feet in habitable area.

After discussion regarding the word "habitable," Steve Leyton said he would be revising 1 and 2 above in regard to the word "habitable."

Where a well system, a water supply tank system, a pump, or a combination thereof, is used, the water supply shall serve both domestic and fire sprinkler systems. ~~a~~Any combination of well capacity and tank storage shall be permitted to meet the capacity requirement.

6.2* Water Supply Sources. When the requirements of 6.2.2 are met, ~~the~~ the following water supply sources shall be considered to be acceptable by this standard:

- (1) A connection to a reliable waterworks system with or without an automatically operated pump
- (2) An elevated tank
- (3) A pressure tank designed to American Society of Mechanical Engineers (ASME) standards for a pressure vessel with a reliable pressure source
- (4) A stored water source with an automatically operated pump
- (5) A well with a pump of sufficient capacity and pressure to meet the sprinkler system demand. The stored water requirement of 6.1.2 or 6.1.3 shall be permitted to be a combination of the water in the well (including the refill rate) plus the water in the holding tank if such tank can supply the sprinkler system.

6.2.2 Where a well, pump, and tank or combination thereof is the source of supply for a fire sprinkler system, ~~but is not a portion of the domestic water system~~ the water supply shall serve both domestic and fire sprinkler systems, and the following shall be met:

- (1) A test connection shall be provided downstream of the pump that creates a flow of water equal to the smallest sprinkler on the system. The connection shall return water to the tank.
- ~~(2) Pump motors using ac power shall be connected to a 240 V normal circuit.~~
- (3) Any disconnecting means for the pump shall be approved.
- (4) A method for refilling the tank shall be piped to the tank.
- (5) A method of seeing the water level in the tank shall be provided without having to open the tank.
- (6) The pump shall not be permitted to sit directly on the floor.

6.2.2.1 Where a fire sprinkler system is supplied by a stored water source with an automatically operated means of pressurizing the system other than an electric pump, the water supply may serve the sprinkler system only.

- Proposed amendments to CRC, NFPA 13D, 2007 ed. and proposed 313.3 (P2904): A 5 GPM domestic allowance shall be added to the sprinkler flow demand for all systems connected to a water supply that serves both domestic and fire sprinkler systems:

P2904.5 Water supply. The water supply shall provide not less than the required design flow rate for sprinklers in accordance with Section P2904.4.2 at a pressure not less than that used to comply with Section P2904.6. Where a water supply serves both domestic and fire sprinkler systems, 5 gpm (19 L/min) shall be added to the sprinkler system demand at the point where the systems are connected, to determine the size of common piping and the size of the total water supply requirements where no provision is made to prevent flow into the domestic water system upon operation of a sprinkler.

6.2.3 Where a water supply serves both domestic and fire sprinkler systems, 5 gpm (19 L/min) shall be added to the sprinkler system demand at the point where the systems are connected, to determine the size of common

pipng and the size of the total water supply requirements where no provision is made to prevent flow into the domestic water system upon operation of a sprinkler.

- Proposed amendments to CRC, NFPA 13D, 2007 ed. and proposed 313.3 (P2904): Address deficiencies in P2904:

P2904.2.3 Freezing areas. Piping shall be protected from freezing as required by Section P2603.6. Where sprinklers are required in areas that are subject to freezing, dry-sidewall or dry-pendent sprinklers extending from a nonfreezing area into a freezing area shall be installed.

P2904.2.3.1 Where fire sprinkler piping cannot be adequately protected against freezing, the system shall be designed and installed in accordance with NFPA 13D.

P2904.2.4.2 Obstructions to coverage. Sprinkler discharge shall not be blocked by obstructions unless additional sprinklers are installed to protect the obstructed area. Sprinkler separation from obstructions shall comply with the minimum distances specified in the sprinkler manufacturer's instructions, **and/or the provisions of NFPA 13D.**

Tonya Hoover informed the task force that the Office of the State Fire Marshal (OSFM) is delivering a Significant Issues Report (SIR) to the Governor's office regarding residential fire sprinkles and the work of Phase I and Phase II task forces.

The group discussed the issue of requiring water flow alarms—with opinions expressed both for and against. The group consensus was that this is a local issue and a change to NFPA 13D should be pursued with the 13D technical committee.

Steve Leyton presented his subcommittee's proposed requirements for working plans—which is reproduced below.

PLANS & CALCULATIONS

- Name of Owner, Builder or Responsible Party.
- Location, including street address and vicinity map.
 - For production homes, Include lot or parcel number, plan ID or model name.
- Point of compass.
- Number of, manufacturer, SIN, response type, temperature rating and K-factor of all sprinklers.
- Underground/site piping plan including all of the following that apply:
 - Point of connection to public water system.
 - Service point of entry to dwelling.
 - Alternative water supply components such as well, pump, gravity or pressure tank.
 - Size and type of all pipe and fittings, with length of each segment and actual inside diameter used for hydraulic calculations.
 - Location and arrangement of all devices such as meter and backflow.
 - On combined laterals serving fire sprinklers and domestic water, location of fire service take-off, master shut off valve, and point of added domestic flow allowance.
 - Size/location of public water main at POC.
 - Flow test/pressure data used for hydraulic calculations, including location of test, elevation relative to finished floor at service point of entry and source of information.
 - Reference nodes matching hydraulic calculations.
- Building system piping plan including all of the following that apply:
 - Point of connection to service pipe.
 - Dimensioned location and spacing criteria for all sprinklers.
 - Size and type of all pipe and fittings, with length of each segment and actual inside diameter used for hydraulic calculations.
 - Location and type of all hangers and means of support.
 - Location and arrangement of valves and devices such as drain/test, pressure relief valve, alarm connection, appliance bypass on MP systems, etc.
 - Full height building section.
 - Reference nodes matching hydraulic calculations.
 - Means of freeze protection as required.
- Name, address and license number of designer or installing design/build contractor (C-16 Fire Protection).

MATERIAL DATA SHEETS

- Fire sprinklers
- Pipe and fittings
- Hangers, means of support
- Water meter and backflow (as they may occur)
- Water supply components and connected devices (as they may occur)

Darren Drake asked Steve Leyton to spell out all the acronyms in the above document for clarity. Steve agreed to do so.

After comments from Kevin Reinertson, Darren Drake suggested the above plans/data sheets be handed off to Phase III working group (Residential Fire Sprinklers Training and Education Task Force).

ROUNDTABLE DISCUSSION

Some members expressed their opinion concerning requiring sprinklers in attached garages and/or carports with habitable space above. Some were opposed but most were in favor. Dave Hoover felt that this was a drastic amendment to a national standard. Kevin Scott was opposed on the grounds that sprinklers are a life safety system rather than a property protecting one. Kevin Reinertson reminded the group that Morgana Yahnke's survey results showed that 87 percent of those jurisdictions she surveyed required automatic sprinklers in attached garages.

Dave Hoover mentioned seeing a report from 2007 using insurance data statistics—along with other statistics—that greatly contradicts the costs involved with fire sprinkler systems. ***Darren Drake asked him to send the link to that information to Judy Bankert so she could send it out to the entire group.***

IDENTIFY DELIVERABLES

There will be no more task force meetings except for conference calls within the subcommittees. ***Kevin Reinertson asked that Steve Leyton's Installation Subcommittee's proposed modifications and rationale be disseminated to the entire task force for their review and input—particularly on the rationale.***

Ernie Paez asked that all final reports be submitted to the co-chairs no later than June 15 so that the information can be compiled and submitted to the OSFM by June 20. Steve Hart asked that Phase I and II groups be kept in the loop concerning the work of Phase III.

ADJOURN MEETING

Darren Drake thanked the group for all their efforts within a short time frame and then adjourned the meeting at 2:40 p.m.