RINGS OF FIRE
Progress and Summary Report

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Executive Summary

The Office of the State Fire Marshal’s (SFM) tire fire program was by any measure a success, thanks to both the funding and technical support from the California Integrated Waste Management Board (CIWMB). Several hundred people have participated in, one form or another, a “Rings of Fire” tire fire presentation or class. The information and content is always well received. National exposure of this program is one of the added benefits with classes given in four states outside of California.

While the contracted code development process has been torturously slow, fundamental changes in model code and legislation have also taken place within the contract time frame. This area of our agreement with CIWMB will require continuous monitoring and support until the code changes are in place.

This report will detail the accomplishments as well as the future role of the State Fire Marshal’s Office in tire fire prevention. The report is organized around major activity identified in the Interagency Agreements Scope of Work. Areas of interest are using subject matter experts, code development, curriculum development, and training delivery.

Tire Fire Council

Convene Subject Matter Experts
Review CIWMB Tire Fire Panel Workshop Report

To facilitate a number of tasks identified in the Scope of Work, the State Fire Marshal formally requested that the California Fire Chiefs Association (CalChiefs) recommend subject matter experts in fire prevention, training and hazardous materials. The Cal-Chiefs volunteers formed the core committee to review and make recommendations to the State Fire Marshal in regards to code and curriculum development. Members of the California Tire Fire Council included:

Todd Thalhammer, CIWMB Contract Manager
Rodney Slaughter, SFM Program Coordinator
Michael Blumenthal, Rubber Manufacturers Association
Kent Miller, Stockton Fire Department
Robert Gill, Central Calaveras Fire & Rescue
Terry Welsh, San Bernardino County Fire Department
James Weigand, Stanislaus Consolidated Fire Department
Tom Horton, Sacramento Metro Fire Department
Rich Johnson, North County Fire Authority
Darrin DeCarli, Sonoma County Department of Emergency Services
Per the Interagency Scope of Work, Rodney Slaughter, SFM Program Coordinator reviewed the CIWMB report “Tire Pile Fires: Prevention, Response, Remediation” which was produced as a result of a summit organized by CIWMB. Members of the Tire Fire Council also reviewed and deconstructed this report for inclusion in the developing curriculum.

The Tire Fire Council convened a total of six meetings in which ideas were presented and discussed. The Council assessed the information needs of emergency responders and code enforcers. Jane Crue from the California District Attorney’s Association, made a code enforcement presentation to the Tire Fire Council. Public information officers from CIWMB and the California Department of Forestry and Fire Protection also made presentations in terms of what information needs to be available from the Incident Command to the public during a large scale tire fire event.

**Code Development**

*Review and Amend the Fire Code*

The intent of this item in the Interagency Scope of Work was to update the California Code of Regulations Title 19, Public Safety Code to include tire pile fire prevention. The main issue for this item is to address what regulation local fire departments can legally enforce. Local fire departments get their statutory authority for code enforcement from the State Fire Marshal’s Office. The SFM confronted this issue with a legislative proposal, a code change proposal to the model code and by surveying other state fire agencies in the country.

While the SFM has general authority over fire safety regulations in the state, the SFM did not have specific legislative authority to address outdoor storage of tire piles. To remediate this problem the SFM, working in collaboration with the CIWMB legislative staff, had developed a legislative proposal on August 12, 2002 that would give the SFM the authority to adopt tire pile fire prevention regulations in collaboration with CIWMB. The legislative proposal was submitted to the Governor’s Office for signature, January 7, 2004 and is currently working its way through the legislative process as Assembly Bill 1249 (See Appendix A).

Assembly Bill 1249 will allow the SFM to adopt regulations relative to outdoor scrap tire storage. Once signed into law, the SFM code development staff will be working collaboratively with the CIWMB staff to draft fire prevention regulations.

In the course of this Interagency Agreement, the opportunity opened for the SFM to submit a model code change proposal to the Uniform Fire Code Association (UFCA) to amend sections of the Uniform Fire Code (UFC). The proposal submitted by the SFM was based on the requirements found in the CIWMB Title 14 regulations.
The reason for the code change proposal is that the SFM recognizes that local fire departments will adopt the entire UFC along with the California Fire Code (CFC) (including the tire fire information not currently adopted by the State). The latter being state amendments located in the model UFC.

This code change would provide the code requirements for inspection and enforcement of outdoor tire facilities to local fire departments in model code language already adopted by local fire departments.

The UFCA had entered into an agreement with the National Fire Protection Association (NFPA) to publish the Uniform Fire Code as NFPA 1. The SFM Code change proposal was presented to Uniform Fire Code Association in Reno, Nevada on November 16, 2003. The proposal was well received by the Fire Code Committee. The committee determined that tire pile storage requirements should have their own chapter within the Fire Code. The committee then voted to support the SFM proposal and to forward it on to NFPA.

NFPA intends to incorporate NFPA 230 and all of the Annexes into the new fire code. NFPA conducted Fire Code Committee meetings in Sacramento to determine what information will be included in the new NFPA 1 (UFC). The code change proposal sent originally to UFCA was brought up for discussion. The committee determined that there was sufficient interest and need to include the fire prevention information in NFPA 230 Annex F to warrant giving it its own chapter. At the final NFPA general meeting the issue was voted on and the new tire fire standard was given Chapter 33 of the NFPA 1 (See Appendix B).

Two major considerations came from the SFM involvement in this process. The first is that the NFPA 230 Annex F Standard was elevated from the appendix to its own chapter in the new code. And secondly, the SFM was able to argue successfully to reduce the storage height found in the original standard from 20 feet to 10 feet. The program coordinator is currently working with NFPA on the commentary that will accompany the new code chapter (included with Appendix B).

The State Fire Marshal sent out a request, through the National Association of State Fire Marshal’s (NASFM), to find out how other fire agencies have addressed their tire storage problems. The survey revealed that if the tire problem is addressed it is usually addressed by the state’s environmental or health agencies. Two state fire marshals reference NFPA 230, Annex F. All who responded agreed that this was an issue within their state.
Curriculum Development
Update and Re-publish the Rings of Fire Curriculum

The SFM found that a significant amount of the literature that needed to be reviewed was already contained in the CIWMB report “Tire Pile Fires: Prevention, Response, Remediation.” This report helped cut down on the curriculum development time frame. Working through the Tire Fire Council, specific subject areas were identified as important for the training program. The Council also reviewed the existing curriculum and identified areas that needed to be updated. Specifically, the Council reviewed the “Rings of Fire” training video several times to identify updates. Throughout the development process the SFM would present material in various stages of development to target audiences. Information from these pilot classes were used to develop the final product. The new “Rings of Fire” curriculum includes:

- Student Manual
- Student Handouts
- Instructor Guide with 10 lesson plans
- Multimedia presentation
- 35-minute video (Digitized and Updated)

All course materials were published on 250 CD/ROM’s to cut down on publication costs and to reduce the need for large storage space and simplify the reproduction of material. The original Rings of Fire video was digitized and then edited with new information, graphics, and voice over. The SFM published 250 copies of the DVD and 25 copies of the VHS. An instructor who had taken the class has been provided with the multimedia kit which contains the CD and DVD. VHS video is available on request.

The course material is supported with a webpage on the SFM web-site which can be accessed at the following address (http://osfm.fire.ca.gov/tirefire.html). All of the printed course material along with information about the program can be located here.

Training Delivery
Conduct 10 classes Statewide

The web-site referenced above, also contains the flier that was developed by Paul Sober, student assistant who was hired to help with the delivery of the training program. Paul developed the flier and distributed it through out the state.
He also booked the classes in a variety of training locations along with registering the participants. The program coordinator made several presentations at Fire Prevention Officer and training officer meetings, north and south, to update and promote the training program.

The California Fire Chiefs Association, California Fire Prevention Officers and California Training Officers Association were all instrumental in getting the word out to their members. The goal was to teach ten programs this was met by providing tire fire presentations at a variety of fire and tire industry conferences along with stand alone classes. The following list shows the distribution of the classes throughout the state:

- Palm Springs, Western Regional Tire Recycling Conference
- Sacramento, CIWMB Tire Conference
- Sacramento, Hazardous Materials Conference
- Buelton, Fire Prevention Officers Conference
- Monterey, Fire Prevention IC (HAZMAT) class
- Fresno, Training Officers Conference
- El Cajon, San Diego Regional Training
- San Bernardino, Inland Empire Regional Training
- Modesto, Central California Regional Training
- Petaluma, Northern California Regional Training
- Riverside, County Training
- Ontario, CIWMB Tire Conference

Several hundred people had participated, in one form or another, a tire fire presentation or class. Specifically 146 people had attended a training program, averaging 14 people per class (conference attendance excluded from this tally). Throughout the development of the curriculum, the response to the class information, and the tools used to deliver the program, were positive and upbeat. Not every venue collected student evaluations, however the rosters and evaluations that were collected are included in this report (See Appendix C).

An additional benefit of California's development of this training program is the interest that it has generated nationally. The tire fire class was delivered to fire department and tire industry people in New Mexico, Nebraska, Ohio and Alabama. **None of the CIWMB contract dollars were used for these out-of-state conferences and classes.**

Changes in the structure of the State Fire Marshal's office precluded giving classes to SFM staff. Instead, the media kits were distributed to all SFM Deputies to be viewed at their discretion. Feedback from staff has been very positive and encouraging. Comments from staff indicated that with the
information provided to them they could make informed decisions if requested to do so. The training program in the hands of SFM staff will be beneficial to CIWMB if a request for assistance should come to the SFM. The program coordinator has also provided technical assistance to CIWMB by attending and the Tire Mono-fill hearings in Sacramento.

Post Contract Follow-Up

Post contract management and follow-up would include a variety of activities started with this Interagency Agreement. One of the most important of these activities would be to develop, in collaboration with CIWMB, fire prevention regulations for California Code of Regulations Title 19 Public Safety Code once AB 1249 passes the legislature. Code development follow-up will also include supporting the NFPA adoption of Chapter 33.

The SFM is committed to maintain the web-page which contains the tire fire information and will continue to update our industries as new code adoptions take place. The SFM will maintain a continuous supply of “Rings of Fire” media kits in the State Fire Training Bookstore.

Rodney Slaughter was recently subpoenaed as a subject matter expert for the Westley Tire Fire court case. As a subject matter expert, his testimony will center on codes and regulations for scrap tire piles.

Future Program Needs

In support of the Governor’s initiative for the “border region” of Southern California, the SFM sees the future needs of this program in terms of providing the same level of training to Spanish speaking code enforcers and firefighters. The future challenge for the CIWMB and the SFM will be to replicate all of the course material into a Spanish language training program and then to hand it off to our southern neighbors.

Conclusion

The Office of the State Fire Marshal would like to extend our appreciation to the California Integrated Waste Management Board for their support and technical assistance in the development of this training program. The program was a success in context of meeting the all the objectives of the Interagency Agreement’s Scope of Work. More importantly, the funding provided by CIWMB allowed the SFM to deliver a top quality training program to the fire service, local enforcement agencies, and the tire industry.