

HERO NPG Questions
[Application and Supporting Docs Link](#)

Hi Board Members:

Please add your questions for the applicant here:

1. Would you change your NPG to also include Training for zone captains & volunteer stakeholders?

No, this NPG request is only to fund [equipment](#) for use by HERO.

If MVCC would like to provide **Disaster Survival Seminars** for more MVCC constituents (I ran one for MVCC in 2019), and/or to build its own **Civilian Urban Search and Rescue Team** like HERO (see **Civilian Emergency Response Training** offerings document below), MVCC may contact me directly at BillPope1@verizon.net.

2. Can you provide evidence of full coordination with the fire department?

While serving on LAFD's CERT Call-Out Team driving LAFD Plug Buggies and Rescue Ambulances with hydration to fires, LAFD informally reviewed my plan for deploying Water Curtains in the Hilltop neighborhood if needed following an area-wide disaster that overwhelms professional fire and rescue services.

(The plan reviewed is in the document titled *Water Curtain Fire Containment System for CERT – 2014* below.)

LAFD thought my plan and estimates of Friction Loss were correct and that HERO's ability to deploy Water Curtains if needed could take some load off LAFD following the long anticipated Big One. However, LAFD cannot give a formal approval as that could make the City liable for any injuries incurred by HERO personal.

(HERO members are required to have their own personal health and liability insurance.)

3. Are you asking if MVCC would provide outreach for your training?

No. This NPG request is only to fund equipment for use by HERO.

If MVCC chooses to offer either of the training programs offered by Bill Pope (see **Civilian Emergency Response Training** document below),

MVCC would be responsible for outreach.

4. Can you provide a command structure for all of Mar Vista? Or do you only have one for Hilltop?

HERO stands for **HILLTOP Emergency Response Organization** and only serves the MV Hilltop neighborhood. This is because all our equipment was funded by Hilltop residents and our members live in the Hilltop neighborhood.

If MVCC chooses to build a **Civilian Urban Search and Rescue Team** like HERO to serve all of its territory and hire Bill Pope to provide the training, **Command Center Operations** instruction would be included in this course. MVCC's Public Safety Committee could be responsible for outreach and be trained to handle *Command Center Operations*.

If Fire Station 62's old building is still available, it could serve as the training venue and as the Command Center. However, it still may require a new electrical Service Entrance Box before it can be used as such.

The MVCC might even be able to talk the City into providing the MVCC with one of LAFD's retired Rescue Ambulances rather than selling them to Mexico for \$1 and taking the write-off.

5. Confirm that all volunteers have required training and certifications before performing firefighting, this is for both the volunteer's safety and for the safety of the community.

Water Curtains are for fire CONTAINMENT to prevent a fire in one structure from spreading to additional structures. USGS predicts 1600 major fires following a major eruption of the San Andreas Fault. Many of these are predicted to wipe out entire blocks if not stopped. HERO would be trained in Fire Containment using Water Curtains and Fire Breaks rather than in Fire Fighting. HERO does not enter burning buildings.

6. Provide a letter from the LAFD reiterating the emergency response operations and that all volunteers have been trained. [See response to question 2 above.](#)

7. Confirm that the volunteers have training or re-certifications.

HERO Fire Containment Teams would receive the training described on page 74 of [HERO's Field GuideBook](#).

8. PAddock comments

- a. My main concern is untrained volunteers training to fight fires without proper training. Donning Fire Fighting equipment, attaching to the fire hydrants and attempting to fight fires without proper training. If the fire department has trained them and they continue receiving training or re-certification I have no problems with them doing this.

HERO is an advanced version of LAFD's Community Emergency Response Team (CERT) training program. In the early days of the CERT program, when I attended, LAFD taught the use of fire houses to attack a fire from a save distance as in the deployment of Water Curtains as HERO hopes to do. However, that training has not been offered in recent years. Possibly because LAFD currently does allocate as many of its personnel to the CERT program as it once did, and possibly because the City is Risk-Adverse.

- b. I have no issues with the expenses suggested if they are trained to use the equipment.

9. Provide a Corporate Organizational Chart for HERO. Who are the officers of the organization?

This information is available in the **Statement of Information** filed with the CA Secretary of State. See Below.

10. Provide a list of active volunteers who are engaged in HERO.

This information is Confidential.

11. How [Who] will ensure effective coordination and cooperation among volunteers?

HERO is run by its members and has been so since 2014.

Bill Pope was the founder, initial trainer, and author of HERO's Civilian Emergency Response Team Field GuideBook. Bill is now in the process of transferring training responsibility to other HERO members.

12. Provide applicable qualifications (training, certifications, etc.) for HERO and it's volunteers.

See the Training page and the Documents page of HERO's website, www.HilltopHEROs.org .

13. Provide qualifications and certifications for installation and deployment of the Water Curtain Fire Containment System.

See page 74 of HERO's **Civilian Emergency Response Team Field GuideBook** on HERO's website.

14. Provide a list of other MVCC neighborhood response teams you are collaborating with.

HERO is the only organized and trained response team that I am aware of in MVCCs area.

In fact, HERO is the only civilian Urban Search & Rescue team of its kind in the City of LA.

15. Provide authorization from LAFD to tie into city hydrants.

Fire Hydrants are provided by the Dept. of Water and Power. Hydrants on public property are owned by taxpayers. Also see response to Question 2.

16. Provide HERO's financials for the past seven years. Provide a list of cost expenditures showing the past purchases of existing equipment and services over the seven year span.

I will be happy to provide the MVCC with HERO's complete accounting spreadsheet showing, Donations, Expenses and Bank Account Balances, but I don't know how to attach such to this document.

17. How will you ensure ongoing communication and transparency with the community after receiving the grant?

The MV Hilltop community will see the equipment purchased with the grant, if given, whenever HERO conducts drills or HERO comes to rescue them following a major disaster.

HERO will be happy to provide MVCC with a tour of HERO's Emergency Equipment Container at any time. Please call Bill Pope at 310-591-9195 to schedule an appointment.

Civilian Emergency Response Training

Civilian Emergency Response Training offers two training programs which can be used standalone or in series:

1. Disaster Survival Seminar and Workshop

The best way neighborhoods can prepare for disaster is to train every resident how to protect and care for themselves. This Seminar trains individuals on what to do before, during and after a disaster for each place they may be: home, car, work or public place, when a disaster strikes. It shows how to harden your home to reduce the risk of becoming a victim, and lists what to stock now to survive after a disaster. It includes Action Plans for each of the eight types of disasters that can strike Los Angeles, and provides an easy-to-memorize emergency response procedure for dealing with injuries and building structural issues that must to be addressed within the critical 4-Minute Life Saving Window. Training is provide through both lecture, demonstration and Hands-on practice Workshop.

The Workshop provides 1-on-1 coaching at 10 Practice Station covering many life-saving skills taught in the Seminar. You will need to provide 10 people to be trained 2 hours before the Seminar to run the Workshop Practice Stations.

The Seminar and Workshop cost between \$300 and \$500 depending on who provides the venue and setup help. A 10-page Disaster Survival Guide containing the key notes from the Seminar in checklists format can be provided for \$5 each. This reduces the need to take notes during the fast-paced Seminar.

The Seminar helps identify those residents/workers willing to train and serve as the Neighborhood's or Workplace's Search And Rescue Team to provide the first response to your neighborhood, workplace or multi-family complex.

2. Civilian Urban Search And Rescue Team Training (CUSART).

Unfortunately, in spite of individual Disaster Prep training, 10% or so of residents/workers will be injured and need help. This program helps you build an Urban Search And Rescue to find, extricate, evaluate, treat and transport those trapped or injured in your neighborhood, workplace or multi-family complex following an area-wide disaster or attack that overwhelms professional rescue services and hospitals. This program offers 24 hours of training spread over 3 weekends, but requires only a 2 to 8 hour time commitment per student because we train specific teams to do specific jobs based on their physical and psychological skill set.

Our curriculum covers:

- Command Center Operation; Incident Prioritization, Resource Allocation & Dispatch, and Response Tracking.
- Damage Assessment and Reporting.
- Incident Management with written procedures for the 8 most common incidents types.
- Small Fire Suppression and Large Fire Containment.
- Urban Search & Rescue.
- Injury Assessment, Advanced First Aid and Life Support at the Emergency Medical Responder (EMR) level.
- Patient Packaging and Transport.

Your **CUSART** will receive 10 copies of the Civilian Emergency Response Team Field GuideBook containing step-by-step Guides with information capture forms or illustrations for each likely job to be done. Each student receives a copy of the Guides for their particular team. Additional copies of the GuideBook may be purchased for \$30.

The **CUSART** training program and GuideBook combines concepts taught in FEMA's Community Emergency Response Training (FEMA CERT), Urban Search and Rescue, American Red Cross's Emergency Medical Responder and Shelter Management classes, LA County Pre-hospital EMS Protocols and pertinent best-practices from American Medical Association (AMA) peer-reviewed studies into a single integrated set of easy-to-follow procedures.

Our fee for this training program is \$4000 for up to 40 students if you provide equipment. Otherwise \$5000.

Samples of our training programs and materials can be seen at www.HilltopHERO.org. More detailed overviews of our training programs, and a comparison with other programs available, are below.

Please contact Bill Pope at 310-391-3887 or BillPope1@verizon.net to discuss and schedule either training program.

Bill Pope
Civilian Emergency Response Training

Water Curtain Fire Containment System for CERT - 2014

Premise:

USGS predicts the Big One will result in 1500 collapsed, 300,000 Moderately Damage buildings, and 1600 Major Fires in LA.

LAFD has only ~160 Fire Engines and trucks. LAFD is going to need help fighting fires to prevent each fire from consuming an entire city block. Considering that a residential house fire can grow from spark to fully involved in minutes, the only fires that will be suppressed by people armed only with extinguishers will be those caught within 30 seconds at the person's own home. This leaves 90% of other homes, and consequently city blocks, at risk.

Project:

Identify a combination of supply hoses, attack hoses and nozzles, with a reaction pressure manageable by one trained volunteer civilian on each nozzle, which will deliver enough water, from a distance outside the bare-skin-burn-from-radiant-heat-zone (118°F ?) from a fully-involved residential building, to cool the facing walls of the two adjacent buildings 10' or more away from the structure involved, to prevent ignition of the adjacent buildings, when the system is:

- a) connected directly to a fire hydrant with 95 PSI pressure, or
- b) assisted by a portable fire pump connected to a fire hydrant.

Example

Water pressure at L.A. City Fire Hydrants is 85 psi in the basin to 95 psi on hills. Mar Vista Hill's pressure is 95 PSI.

Fire Hydrants in the City of Los Angeles are spaced at ~ 600' intervals.

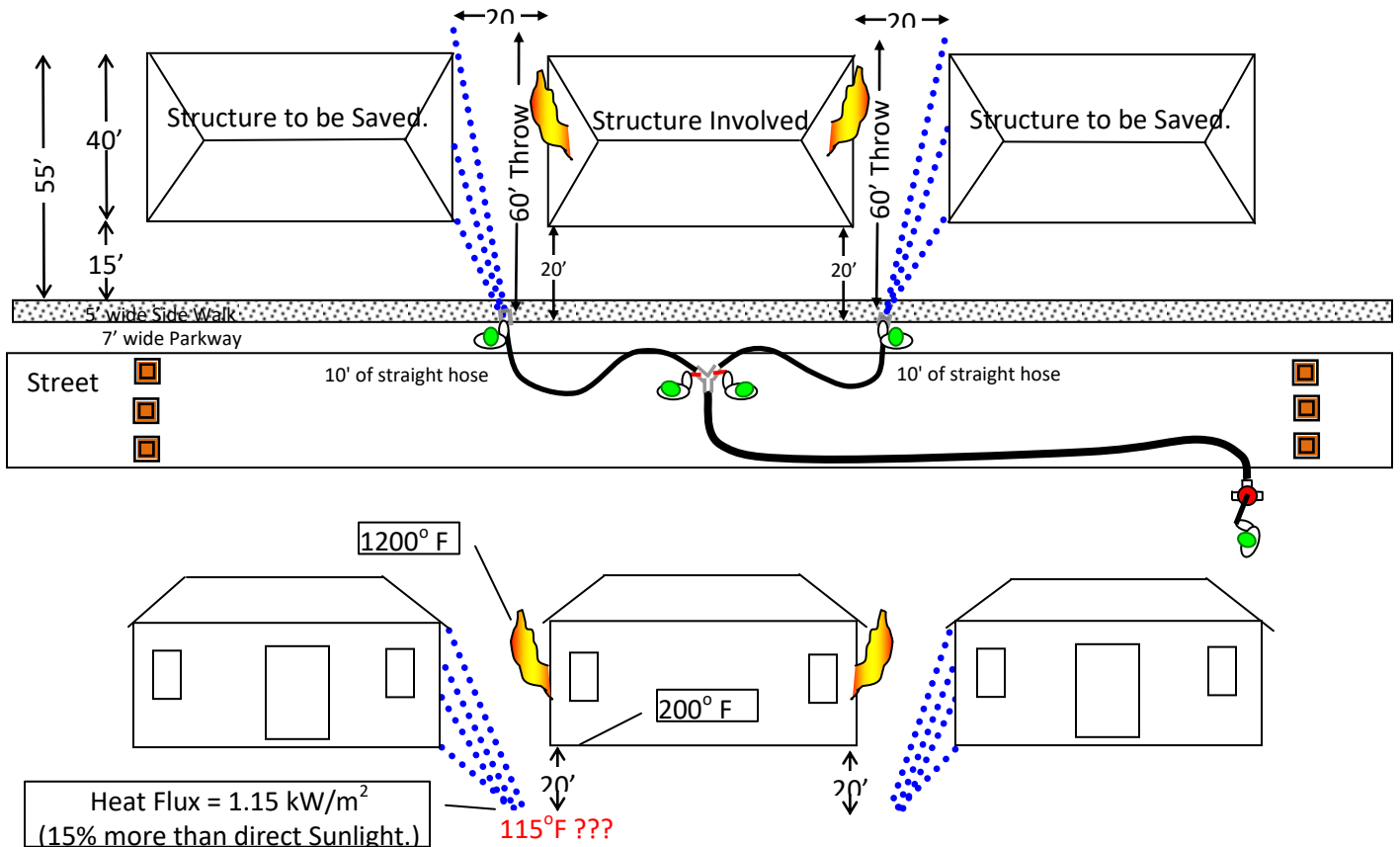
The equipment listed below could be used to get water to the front yard of most structures in the City.

This equipment is within the price-reach of most community-based CERT teams. (2017 prices.)

300' 2-½" Supply Hose	\$ 600	Friction Loss at 140 GPM for 300' = 6 PSI loss. Hose Weight: 28 lb/100'
2) 50' 1-½ " Hoses	\$ 180	Friction Loss at 70 GPM for 50' = 6 PSI loss. Hose Weight: 8 lb/ 50'.
1) Gated 2-½ in x 2)1-½ " Wye	\$ 264	Friction Loss ?
2) 1-½" Fog-Straight Nozzles	\$ 60	FireHoseDirect B15. 70 GPM. 60'/85'? throw at 70 PSI. (PSI available = 83 PSI.)
1) Hydrant wrench	\$ 30	
2) Spanner wrench	\$ 40	
4) Nomex Hoods, Face Shields	\$ 200	Majestic PACIII Hoods (New wildland suits \$200. Used urban suits \$100 Ebay)
	\$1374	2014 price. (2023 price is \$2404.)

Questions and Answers:

1. The Heat Flux Radiation at 20' = **1.15 kW/m²** (15% more than direct Sun shine.) At 30' = **0.66**. At 40' = **0.43**.
2. What is the temperature at ground level at 20', 30' and 40' considering the fire's conduction cooling effect? F.
3. Is a nomex hood + CERT's normal PPEs sufficient to shed falling ash? **Yes**. Will full turnout gear be required? **No**



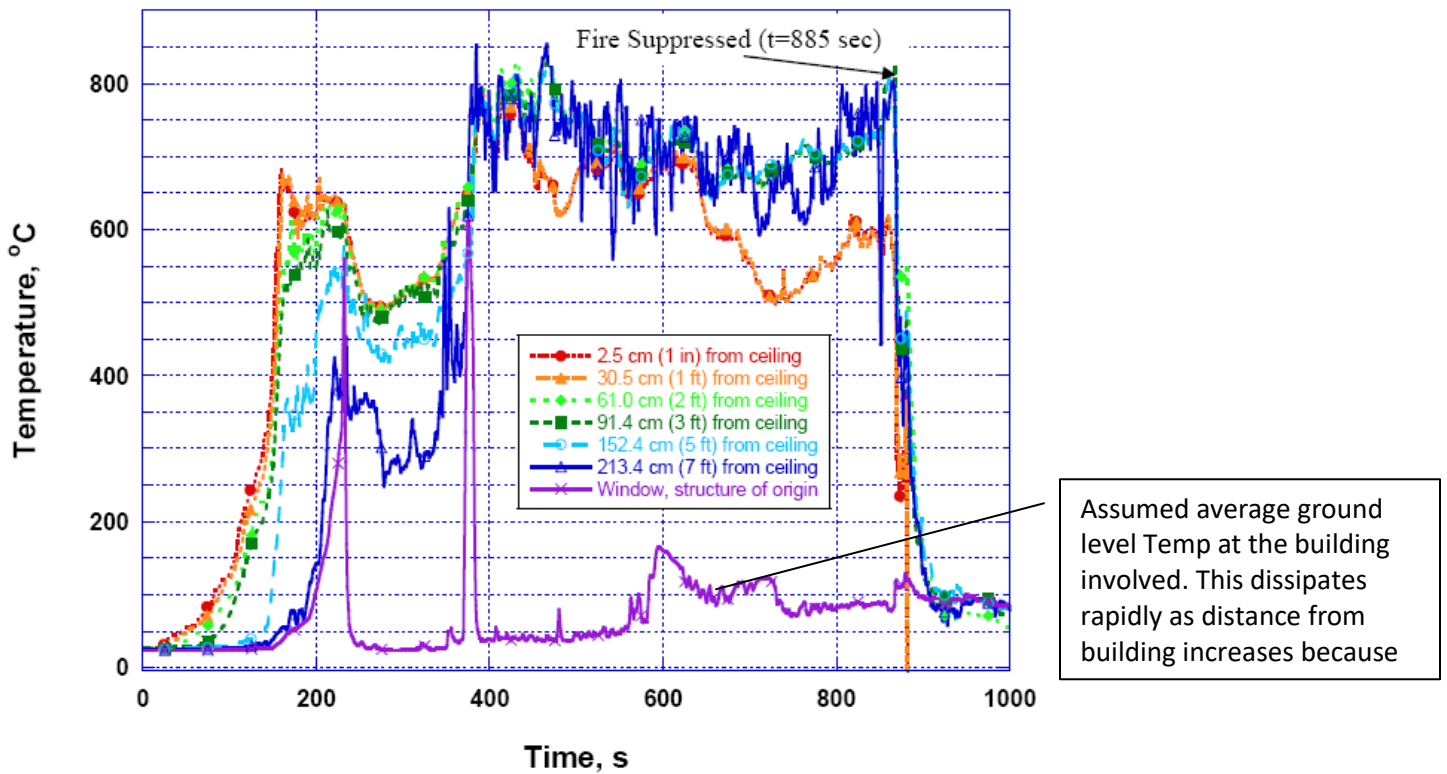


Figure 13. Experiment 2 (fire resistant construction) temperatures versus time. Data have been smoothed (5 s window). Expanded uncertainty before 380 s is about $+0/-200$ °C for the two thermocouples at the lowest height and $+100/-0$ °C for the others. After 380 s, the uncertainty for all temperatures is about $+50/-0$ °C.

Source: <http://www.fire.nist.gov/bfrlpubs/fire08/PDF/f08034.pdf>

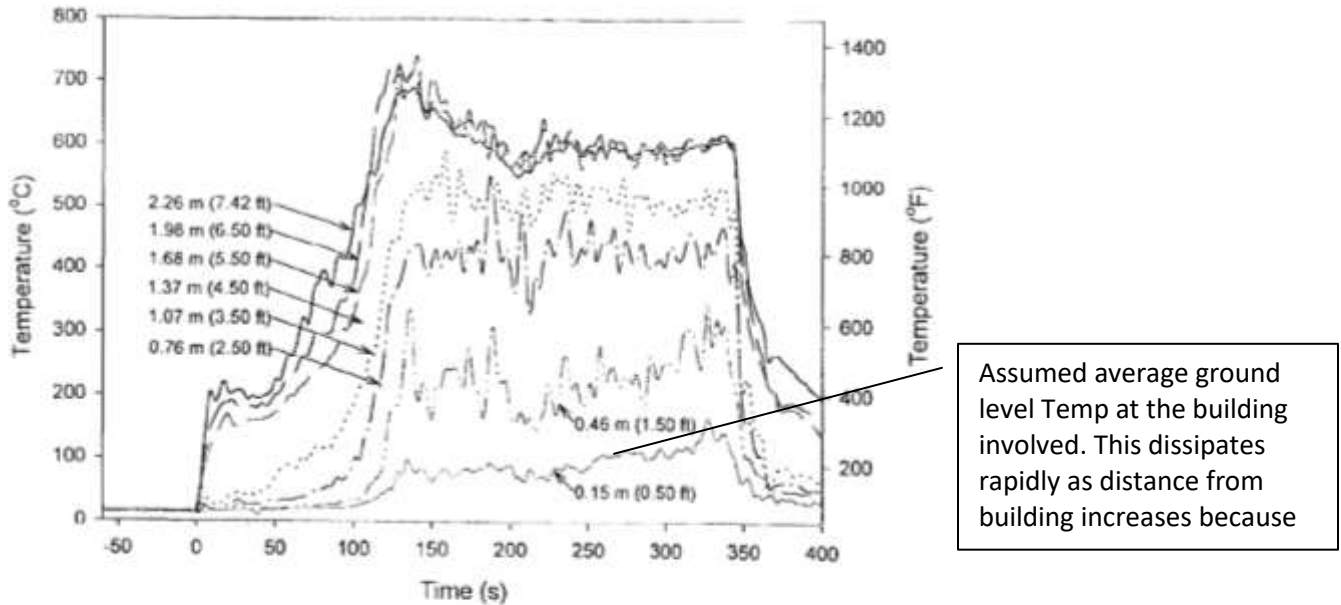


Figure 6. Living room thermocouple temperatures.

Source: <http://www.fire.nist.gov/bfrlpubs/fire00/PDF/f00136.pdf>

THEORETICAL FRICTION LOSS IN FIRE HOSE

Pressure loss per 100 feet (in psi)												
gpm Flow	Hose Diameter											
	¾"	1"	1.5"	1.75"	2"	2.5"	3"	3.5"	4"	4.5"	5"	6"
12	16	2	0									
20	44	6	1	1	0							
23	58	8	1	1	0							
30	99	14	2	1	1	0						
45	223	30	5	3	2	0						
60	396	54	9	6	3	1	0					
95		135	22	14	7	2	1	0				
125		234	38	24	13	3	1	1	0			
150		338	54	35	18	5	2	1	0			
200			96	62	32	8	3	1	1	0	0	
250			150	97	50	13	5	2	1	1	1	0
300			216	140	72	18	7	3	2	1	1	0
350			294	190	98	25	10	4	2	1	1	1
375				218	113	28	11	5	3	1	1	1
400				248	128	32	13	5	3	2	1	1
450				314	162	41	16	7	4	2	2	1
500					200	50	20	9	5	3	2	1
550					242	61	24	10	6	3	2	2
600					288	72	29	12	7	4	3	2
650					338	85	34	14	8	4	3	2
700						98	39	17	10	5	4	2
750						113	45	19	11	6	5	3
800						128	51	22	13	6	5	3
850						145	58	25	14	7	6	4
900						162	65	28	16	8	6	4
950						181	72	31	18	9	7	5
1000						200	80	34	20	10	8	5
1250						313	125	53	31	16	13	8
1500									45	23	18	11
2000									80	40	32	20

I used an online calculator which said 6 PSI Loss at 70 GPM though 50' of 1.5" hose which crosschecks with the estimated 12 PSI loss interpolated

The calculator I used said 6 PSI loss through 300' of 2.5" hose. Not sure which is correct.

Fire and the Human Body

° C	° F	Response
37	98.6	Normal human oral/body temperature
44	111	Human skin begins to feel pain
48	118	Human skin receives a first degree burn injury ←
55	131	Human skin receives a second degree burn injury
62	140	A phase where burned human tissue becomes numb
72	162	Human skin is instantly destroyed
100	212	Water boils and produces steam
140	284	Glass transition temperature of polycarbonate
230	446	Melting temperature of polycarbonate
250	482	Charring of natural cotton begins ←
>300	>572	Charring of modern protective clothing fabrics begins
>600	>1112	Temperatures inside a post-flashover room fire

CHAPTER 5. ESTIMATING RADIANT HEAT FLUX FROM FIRE TO A TARGET FUEL AT GROUND LEVEL UNDER WIND-FREE CONDITION

POINT SOURCE RADIATION MODEL

Version 1805.0

The following calculations estimate the radiative heat flux from a pool fire to a target fuel.

The purpose of this calculation is to estimate the radiation transmitted from a burning fuel array to a target fuel positioned some distance from the fire at ground level to determine if secondary ignitions are likely with no wind.

Parameters in **YELLOW CELLS** are Entered by the User.

Parameters in **GREEN CELLS** are Automatically Selected from the **DROP DOWN MENU** for the Fuel Selected.

All subsequent output values are calculated by the spreadsheet and based on values specified in the input parameters. This spreadsheet is protected and secure to avoid errors due to a wrong entry in a cell(s).

The chapter in the NUREG should be read before an analysis is made.

INPUT PARAMETERS

Mass Burning Rate of Fuel (m'')

0.01082

Effective Heat of Combustion of Fuel ($\Delta H_{c,eff}$)

10900

Empirical Constant ($k\beta$)

100

Heat Release Rate (Q)

4382.72

Fuel Area or Dike Area (A_{dike})

400.00

Distance between Fire and Target (L)

40.00

Radiative Fraction (χ_r)

0.30

OPTIONAL CALCULATION FOR GIVEN HEAT RELEASE RATE

Select "User Specified Value" from Fuel Type Menu and Enter Your HRR here →

THERMAL PROPERTIES DATA

BURNING RATE DATA FOR FUELS

Fuel	Mass Burning Rate m'' (kg/m ² -sec)	Heat of Combustion $\Delta H_{c,eff}$ (kJ/kg)	Empirical Constant $k\beta$ (m ⁻¹)
Methanol	0.017	20,000	100
Ethanol	0.015	26,800	100
Butane	0.078	45,700	2.7
Benzene	0.085	40,100	2.7
Hexane	0.074	44,700	1.9
Heptane	0.101	44,600	1.1
Xylene	0.09	40,800	1.4
Acetone	0.041	25,800	1.9
Dioxane	0.018	26,200	5.4
Diethy Ether	0.085	34,200	0.7
Benzine	0.048	44,700	3.6
Gasoline	0.055	43,700	2.1
Kerosine	0.039	43,200	3.5
Diesel	0.045	44,400	2.1
JP-4	0.051	43,500	3.6
JP-5	0.054	43,000	1.6

Transformer Oil, Hydrocarbon	0.039	46,000	0.7
561 Silicon Transformer Fluid	0.005	28,100	100
Fuel Oil, Heavy	0.035	39,700	1.7
Crude Oil	0.0335	42,600	2.8
Lube Oil	0.039	46,000	0.7
→ Douglas Fir Plywood	0.01082	10,900	100
User Specified Value	Enter Value	Enter Value	Enter Value

Reference: SFPE Handbook of Fire Protection Engineering, 3rd Edition, 2002, Page 3-26.

ESTIMATING RADIATIVE HEAT FLUX TO A TARGET FUEL

Reference: SFPE Handbook of Fire Protection Engineering, 3rd Edition, 2002, Page 3-272.

POINT SOURCE RADIATION MODEL

$$q'' = Q \chi_r / 4 \pi R^2$$

Where

q'' = incident radiative heat flux on the target (kW/m²)

Q = pool fire heat release rate (kW)

χ_r = radiative fraction

R = distance from center of the pool fire to edge of the target (m)

Pool Fire Diameter Calculation

$$A_{\text{dike}} = \pi D^2 / 4$$

$$D = \sqrt{(4A_{\text{dike}} / \pi)}$$

Where

A_{dike} = surface area of pool fire (m²)

D = pool fire diameter (m)

$D =$

6.88m

Heat Release Rate Calculation

$$Q = m'' \Delta H_{c,\text{eff}} (1 - e^{-k\beta D}) A_f$$

Where

Q = pool fire heat release rate (kW)

m'' = mass burning rate of fuel per unit surface area (kg/m²-sec)

ΔH_c = effective heat of combustion of fuel (kJ/kg)

A_f = surface area of pool fire (area involved in vaporization) (m²)

$k\beta$ = empirical constant (m⁻¹)

D = diameter of pool fire (diameter involved in vaporization, circular)

$Q =$

4382.72kW

Distance from Center of the Fire to Edge of the Target Calculation

$$R = L + D / 2$$

Where

R = distance from center of the pool fire to edge of the target (m)

L = distance between pool fire and target (m)

D = pool fire diameter (m)

$R =$

15.63m

Radiative Heat Flux Calculation

$$q'' = Q \chi_r / 4 \pi R^2$$

$q'' =$

0.43kW/m²

0.04Btu/ft²-sec

NOTE

The above calculations are based on principles developed in the SFPE Handbook of Fire Protection Engineering, 3rd Edition, 2002.

Calculations are based on certain assumptions and have inherent limitations. The results of such calculations may or may not have reasonable predictive capabilities for a given situation, and should only be interpreted by an informed user.

Although each calculation in the spreadsheet has been verified with the results of hand calculation, there is no absolute guarantee of the accuracy of these calculations.

Any questions, comments, concerns, and suggestions, or to report an error(s) in the spreadsheet, please send an email to nxi@nrc.gov or mxs3@nrc.gov.



Prepared by:

Date:

Organization:

Checked by:

Date:

Organization:

Additional Information

I assumed that the roof of a stucco-clad wood frame structure will burn and collapse before the stucco falls.

If so, then the closest a civilian fire fighter will be to the heat source of a burning residential structure will be when the stucco falls off exposing the plywood shear panels underneath. Since a solid wall of shearing material would be a hotter fire than an unsheared/un-paneled frame, I used a 40' w x 10' high wall of Douglas Fir plywood (400SF) as the fuel.

⇒ Heat flux at 20' from fire is 1.15 kW/m², or 15% more than direct sunshine on a sunny day.

Heat flux at 30' from fire is 0.66 kW/m², or 34% less than direct sunshine on a sunny day.

Heat flux at 40' from fire is 0.43 kW/m².

(Fire Fighters experience 3.5 kW/m² when inside a burning building.)

Therefore, I don't believe "turnout" apparel would be required. Natural fibre long-sleeve, long-pant clothing such as cotton or wool, plus a Nomex hood and heat-reflective face shield with other CERT PPEs should be sufficient.



DA20231280509



STATE OF CALIFORNIA
Office of the Secretary of State
STATEMENT OF INFORMATION
CA NONPROFIT CORPORATION
 California Secretary of State
 1500 11th Street
 Sacramento, California 95834
 (916) 652-3515

20228
 2023

For Office Use Only -FILED- File No.: DA20231280508 Date Filed: 8/15/2023

F015-1172 08/15/2023 8:59 PM received by California Secretary of State

Entity Details													
Corporation Name	HILLTOP EMERGENCY RESPONSE ORGANIZATION												
Entity No.	3793410												
Formed In	CALIFORNIA												
Street Address of California Principal Office of Corporation													
Street Address of California Office	3277 INGLEWOOD BOULEVARD LOS ANGELES, CA 90066												
Mailing Address of Corporation													
Mailing Address	3277 INGLEWOOD BOULEVARD LOS ANGELES, CA 90066												
Attention	Bill Pope												
Officers													
<table border="1"> <thead> <tr> <th>Officer Name</th> <th>Officer Address</th> <th>Position(s)</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> BILL POPE</td> <td>3277 INGLEWOOD BOULEVARD LOS ANGELES, CA 90066</td> <td>Chief Executive Officer</td> </tr> <tr> <td><input checked="" type="checkbox"/> Maria Rubin</td> <td>3546 CENTINELA AVENUE #303 Los Angeles, CA 90066</td> <td>Secretary</td> </tr> <tr> <td><input checked="" type="checkbox"/> Frank Ruy</td> <td>3271 INGLEWOOD BOULEVARD Los Angeles, CA 90066</td> <td>Chief Financial Officer</td> </tr> </tbody> </table>	Officer Name	Officer Address	Position(s)	<input checked="" type="checkbox"/> BILL POPE	3277 INGLEWOOD BOULEVARD LOS ANGELES, CA 90066	Chief Executive Officer	<input checked="" type="checkbox"/> Maria Rubin	3546 CENTINELA AVENUE #303 Los Angeles, CA 90066	Secretary	<input checked="" type="checkbox"/> Frank Ruy	3271 INGLEWOOD BOULEVARD Los Angeles, CA 90066	Chief Financial Officer	
Officer Name	Officer Address	Position(s)											
<input checked="" type="checkbox"/> BILL POPE	3277 INGLEWOOD BOULEVARD LOS ANGELES, CA 90066	Chief Executive Officer											
<input checked="" type="checkbox"/> Maria Rubin	3546 CENTINELA AVENUE #303 Los Angeles, CA 90066	Secretary											
<input checked="" type="checkbox"/> Frank Ruy	3271 INGLEWOOD BOULEVARD Los Angeles, CA 90066	Chief Financial Officer											
Additional Officers													
<table border="1"> <thead> <tr> <th>Officer Name</th> <th>Officer Address</th> <th>Position</th> <th>Formed Position</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center;">None Entered</td> </tr> </tbody> </table>	Officer Name	Officer Address	Position	Formed Position	None Entered								
Officer Name	Officer Address	Position	Formed Position										
None Entered													
Agent for Service of Process													
Agent Name	BILL POPE												
Agent Address	3277 INGLEWOOD BOULEVARD LOS ANGELES, CA 90066												
Email Notifications													
Opt-In Email Notifications	Yes, I opt-in to receive entity notifications via email.												
Electronic Signature													
<input checked="" type="checkbox"/> By signing, I affirm that the information herein is true and correct and that I am authorized by California law to sign.													
<u>Bill Pope</u>	<u>08/15/2023</u>												
Signature	Date												