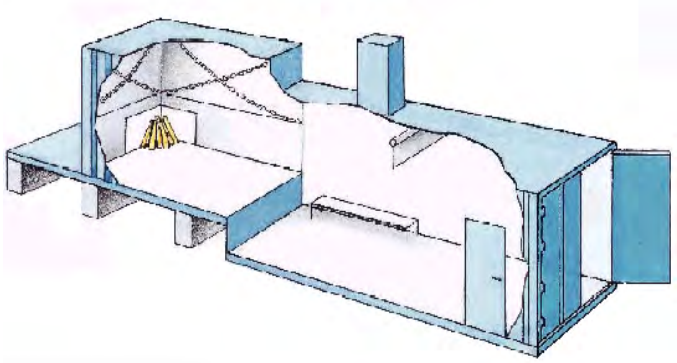
FIRE BEHAVIOUR TRAINING Instructors Course



1. Demonstration container 1

The aim of the exercise is to allow the student, based upon his or her own observations, to study and experience the growth of a fire from ignition to flashover. Of course the flashover isn't experienced inside the container, which is important to point out to the students

During the briefing prior to the exercise the entire expected development of the fire is covered in detail; and at the same time emphasis can be placed on aspects that ought to be considered or studied more carefully. This briefing is vital and ought to be delivered slowly. Once inside the container it has been shown that the best results are achieved if the instructor "DOESN'T SPEAK" and only uses a pointer to indicate important aspects as they happen during the development of the fire.

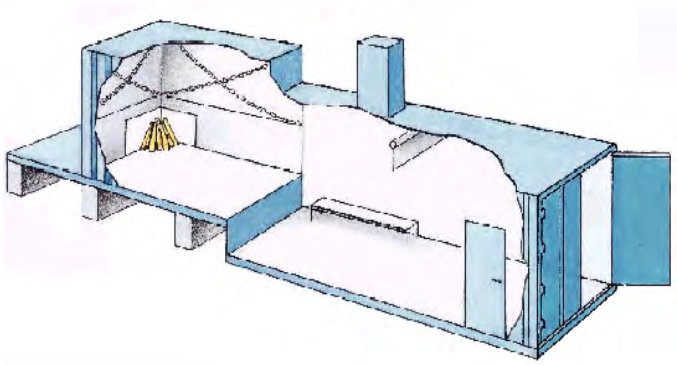
Execution

Ignite the initial fire, which is small and positioned a short distance away from the wall.
Ignite it using an LPG burner; we never use flammable liquids in the containers.
Let the fire develop, this can take a while, which is expected, so just take it easy.
When a cloud of smoke/gases has collected under the roof in the observers' section let the students remove a glove and carefully feel the differences in temperature above and below the neutral plane.
Let the fire develop, without influencing it with anything other than the roof hatch, until the flames reach out over the students' heads, i.e. into the observers' section. Damp down the fire by the use gas-cooling. Let the fire take again and once again study its development, this process can be repeated several times, time permitting. Inform the students that you are going to use indirect extinguishing to damp down the fire, and to study the differences in the amount of time required for the fire to take again.
At this stage it can be useful to demonstrate a form of attack that employs all the extinguishing techniques simultaneously; and then conclude with the cooling of surrounding surfaces. Do this by moving the students out of the container so they are level with the back doors. Let the fire take again and wait until the flames come out via

the back doors, then demonstrate the method using long pulses followed up by short pulses in connection with penetration.

When the fuel is expended, stop the exercise and leave the container.
This usually takes about 30 to 45 minutes, depending on the weather and the level of moisture in the “fuel” being used.

At the end of the exercise hold a thorough debriefing in which all participants get the opportunity to express in their own words what they have experienced.



2. Demonstration container 2

The aim of the exercise is to allow the student, based upon his or her own observations, to study and experience the growth of a fire from ignition to flashover, and to practice gas-cooling from a stationary position.
Of course the flashover isn’t experienced inside the container, which is important to point out to the students

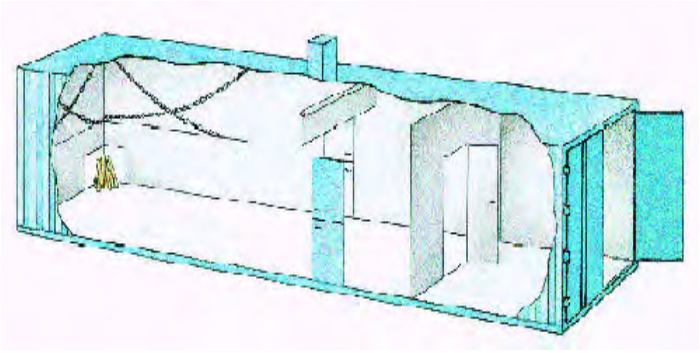
During the briefing prior to the exercise the entire expected development of the fire is covered in detail; and at the same time emphasis can be placed on aspects that ought to be considered or studied more carefully. This briefing is vital and ought to be delivered slowly. Once inside the container it has been shown that the best results are achieved if the instructor ”DOESN’T SPEAK” and only uses a pointer to indicate important aspects as they happen during the development of the fire. Demonstrate the various methods, and stress that during the exercise only gas-cooling is to be used, unless you request surface cooling.
(Explain why, for example, indirect extinguishing isn’t recommended if they don’t already understand why)

Execution
Ignite the initial fire, which is small and positioned a short distance away from the wall.
Ignite it using an LPG burner; we never use flammable liquids in the containers.
Let the fire develop, this can take a while, which is expected, so just take it easy.
When a cloud of smoke/gases has collected under the roof in the observers’ section let the students remove a glove and carefully feel the differences in temperature above and below the neutral plane.

Let the fire develop, without influencing it with anything other than the roof hatch, until the flames reach out over the students' heads, i.e. into the observers' section. Damp down the fire by the use of gas-cooling. Use the time needed for re-ignition to get the students ready to practice gas-cooling. Rotate the students so that they all get at least one chance to practice. The student must contain the fire within the fire section of the container, i.e. prevent the flames from spreading to the observers' section; and this must be achieved without "drowning" the fire or those present inside the container, and without scalding his or her colleagues.

Continue with this until all the fuel has been expended, then stop the exercise and leave the container.

At the end of the exercise hold a thorough debriefing in which all participants get the opportunity to express in their own words what they have experienced.



3. Attack container 1

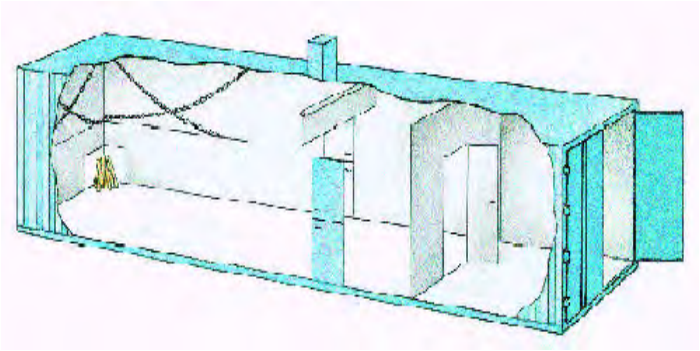
The aim of the exercise is to train the students in gas-cooling using the method of moving forward a short distance. By advancing towards the seat of the fire we train the students to alternate between various directions, and pulse lengths and durations, of the water jet.

Execution
Position yourself with two students level with the side doors; you should be shoulder to shoulder with the student that is operating as the branchman. Keep all container doors open throughout the exercise.
Ignite the initial fire using an LPG burner; we never use flammable liquids in the containers. Let the fire develop, this can take a while, which is expected, so just take it easy.

When the flames reach the roof hatch and there is a smoke/gas layer approximately 0.5-1 metre deep give the signal to the student to start the attack. Let the student operate independently and only support/guide him or her silently using hand signals.
Move forward until it is possible to "paint" the chipboard, do this in order to create time to retire back to the exit. On reaching the exit let the students change places and then carry out the same procedure again.
Then leave the container and let the other instructor enter with two other students.

Continue with this until all the fuel has been expended, then stop the exercise and leave the container.

At the end of the exercise hold a thorough debriefing in which all participants get the opportunity to express in their own words what they have experienced.



4. Attack container 2

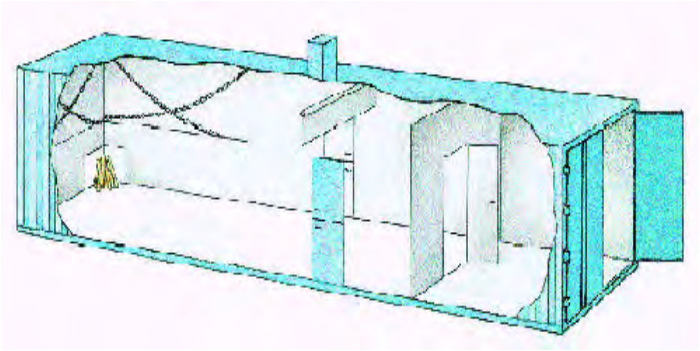
The aim of the exercise is to train the students in gas-cooling using the method of advancing from the door to the seat of the fire. The student should practice alternating between various directions and pulse lengths and durations of the water jet.
The student should prevent an ignition of the gases above and behind him/herself.

Execution
Position the students in pairs outside the back doors. Keep the inner back door open throughout the exercise. Ignite the initial fire using an LPG burner; we never use flammable liquids in the containers. Let the fire develop, this can take a while, which is expected, so just take it easy.

When the flames reach the roof hatch and there is a smoke/gas layer approximately 1-1.5 metre deep give the signal to the student to start the attack. Let the student operate independently and only support/guide him or her silently using hand signals. Move forward until it is possible to “paint” the chipboard, do this in order to create time to retire. Then leave the container and let the other instructor go in and take over. This is repeated until all students have been in operating as the branchman.

Continue with this until all the fuel has been expended, then stop the exercise and leave the container.

At the end of the exercise hold a thorough debriefing in which all participants get the opportunity to express in their own words what they have experienced.



5. Attack container 3

The aim of the exercise is to train the students in an attack on hot gases using the method of penetration via a door opening. By allowing the student to encounter an unknown scenario we let him/her practice the use/application of those methods that have been demonstrated. In this exercise as well we advance to the seat of the fire.

Execution
Position the students in pairs outside the back doors. Keep the inner back door closed while the scenario is being prepared. Ignite the initial fire using an LPG burner; we never use flammable liquids in the containers. Let the fire develop, this can take a while, which is expected, so just take it easy.
When the flames reach the roof hatch and there is a smoke/gas layer approximately ½ metre from the floor give the signal to the student – by banging on the door – to commence the attack. Let the student operate independently and only support/guide him or her silently using hand signals. Move forward until it is possible to "paint" the chipboard, do this in order to create time to retire. Then leave the container and let the other instructor go in and take over.
This is repeated until all students have been in operating as the branchman.

Continue with this until all the fuel has been expended, then stop the exercise and leave the container.

At the end of the exercise hold a thorough debriefing in which all participants get the opportunity to express in their own words what they have experienced.

HAND SIGNALS USED INSIDE THE CONTAINER

Pat on the shoulder= Stop! Wait and think about what is happening. There is something you ought to change.

Hand on the nozzle = No more water. Stop applying water.

Hand in front of the nozzle = Wait! Do not commence water application.

Point forwards = Advance

Point backwards = Retire