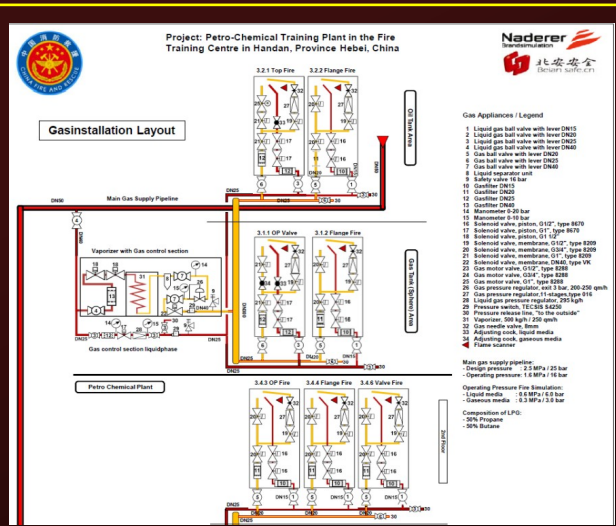


FEEL THE FIRE – Firefighter Training Today

Naderer
Brandsimulation



www.naderer-firetrainer.com



Engineering

Design
Development
Manufacture
Commissioning

HEBEI - Project Schedule												
Fire Training Centre												
GUJHEBEI-Projectschedule-190731.MLS												
Page 1 of 2												
Action Item	7	8	9	10	11	12	1	2	3	4	5	6
Signature of Contract by Bei-An Safe	24.7											
Work planning process												
Kick-off Meeting Design & Engineering Props	27.7											
Kick-off Meeting Hardware Concept	29.7											
Invoice for 1st down payment	31.7											
Receipt of down payment	20.8											
Design and engineering of fire props												
Delivery of production drawings of props				1.10								
Order of fire places & props in China												
Production of fire places & props in China												
Invoice for 2nd down payment				24.9								
Development of hardware concept												
Specifications for plant control system												
Design plant control system												
Production of plant control system												
Factory inspection of plant control system												
Definition of the components for:												
- Safety and Gas supply system												
- Cabling etc.												
Coordination of purchasing location CN - CH												
Purchase of components and appliances												
in both China & Europe												
Compilation of parts list for props												
Purchase of components for props												
Production of technical cabinets for props												
Factory inspection of technical cabinets												
Packing of items from Europe												

Project Management

complete from Design
to Commissioning



Installation
Commissioning
After Sales Support

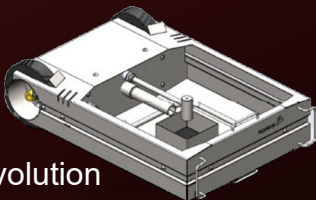
Installation
Commissioning
Maintenance Services and/or
Complete Overhaul
at Customers location



Firepocket Control Units



Smartfire



Evolution



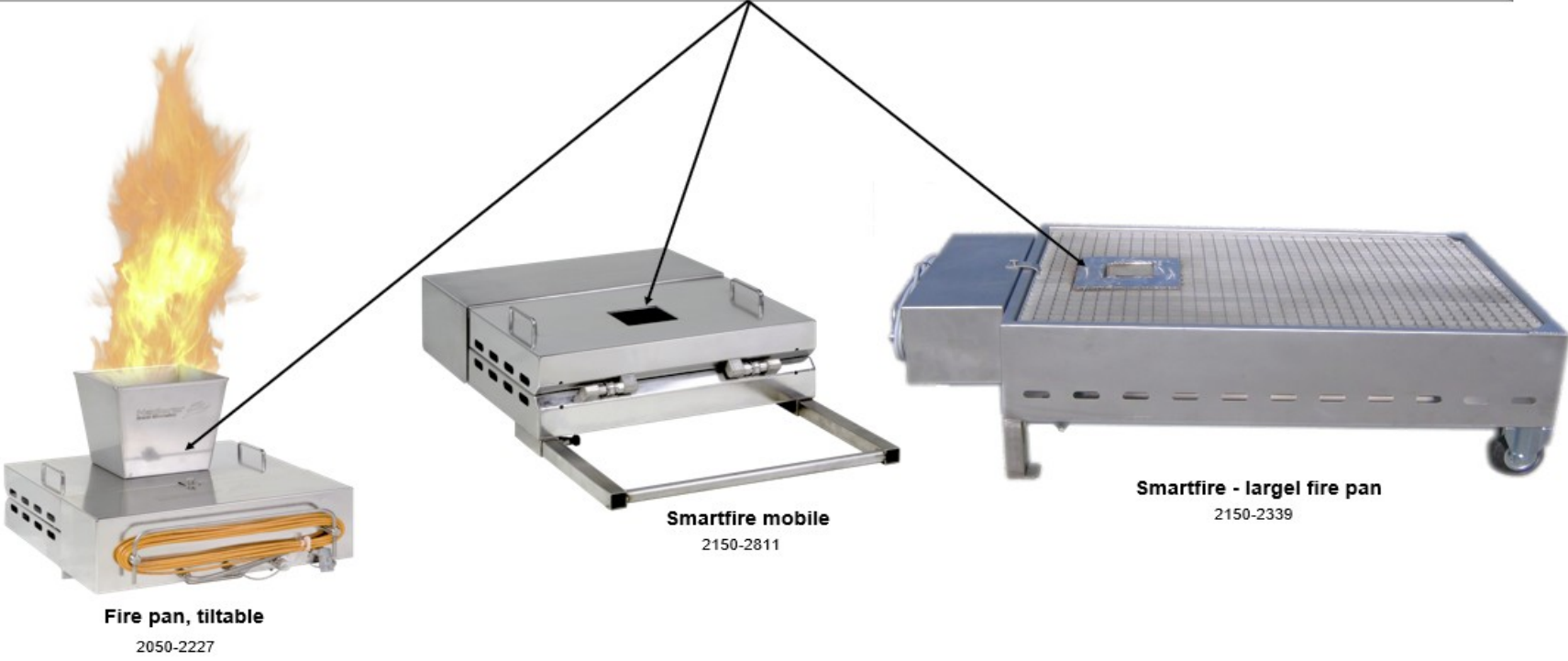
Eco



Business



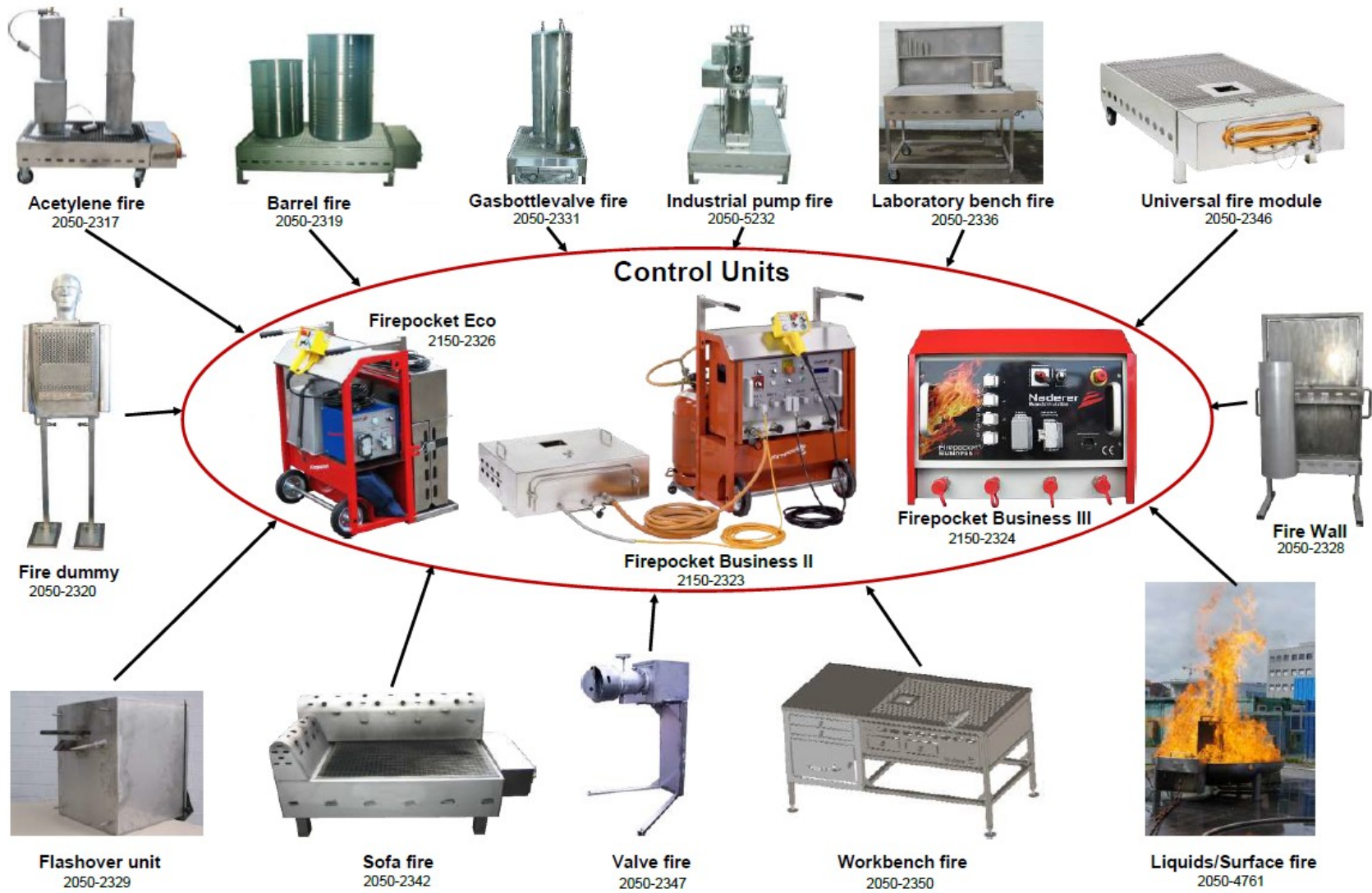
Use of inactive Mock-up modules



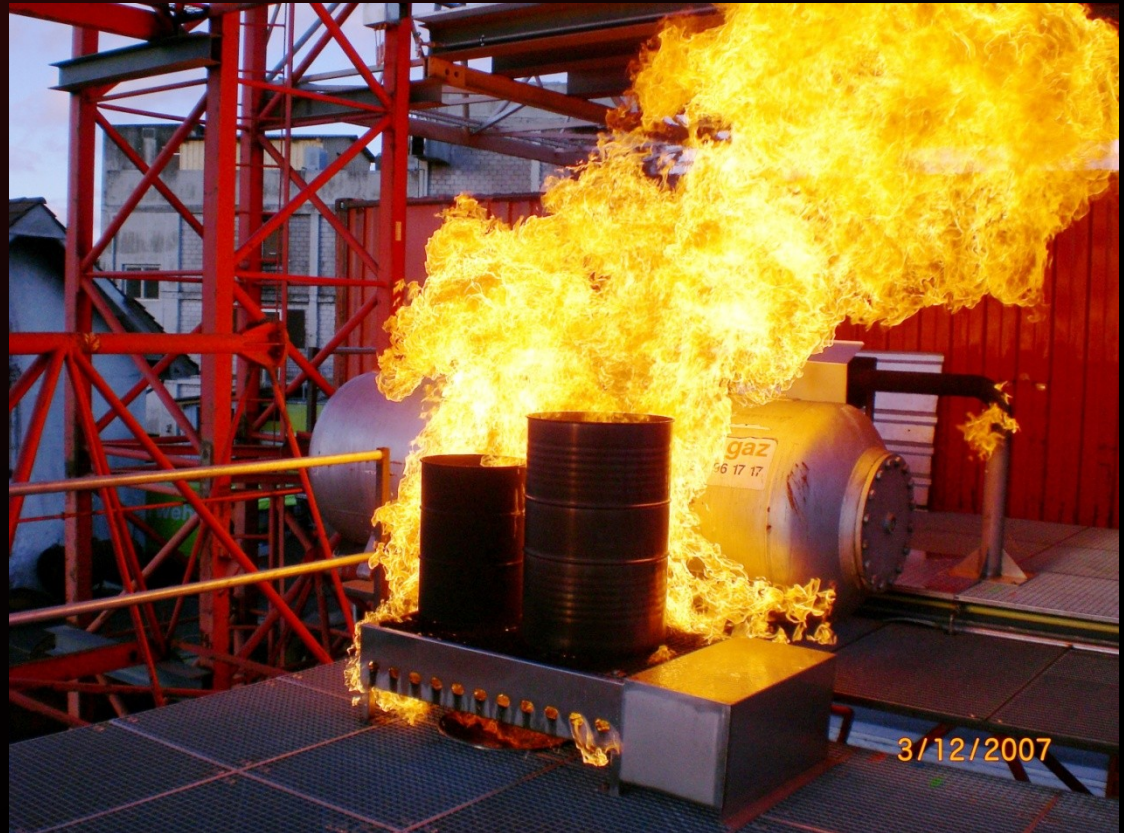
Fire Fighter- / Water Jet Gun Training



Control of fire modules



„Barrels on Fire“



„Flamewall“



Inside the Fire house – Attack with CAFS-Foam

„Gasbottle-Valve Fire“



Water jet gun- and team training



„Tank or Valve Fire“



The following quenching agents can be applied:

Water



Powder



Foam or Light Water



CO_2



„Firecar“





Hazardous Goods- and Fire Training Unit



Hazardous Goods- and Fire Training Unit

Action Training*3-fold Extinguishing Attack*

- Water
- Foam
- Powder



Mobile Fire Extinguisher Training Truck

Securitas Fire Control
& Services GmbH



Fire Extinguishing Sensors

The modern Hollow-Jet nozzle guns are very efficient in the hands of well trained fire fighters. Modern Fire Simulation Training Plants should therefore be designed to accommodate this latest standards of fire fighting technique. Unfortunately this is rarely the case. Hollow jet nozzles work on the principle of heat reduction. This means, the better the handling of the nozzle, the faster the fire is extinguished and the less water was used to achieve this.

The right way to do: **Measure the temperature reduction!**



To evaluate the correct extinguishing technique, NADERER is consequently using thermal and optical sensors. Only this way, in connection with the corresponding software, it is possible to recognize the correctly executed firefighting action.

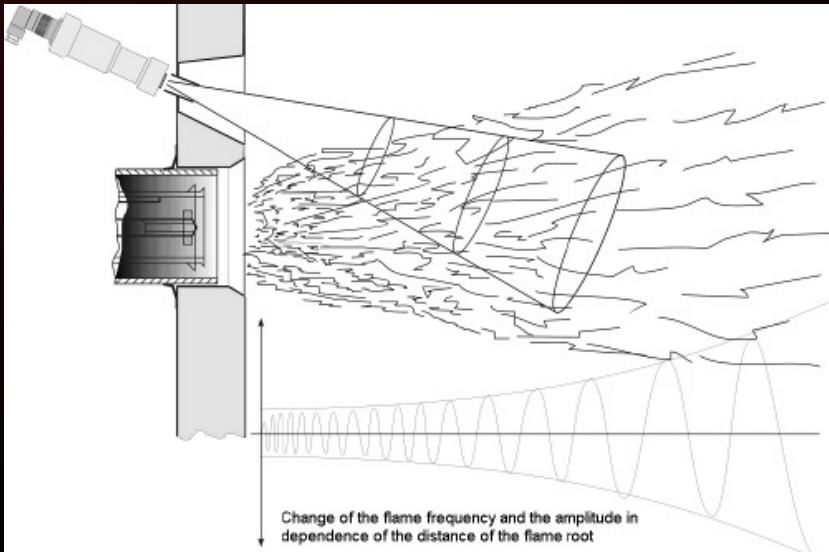


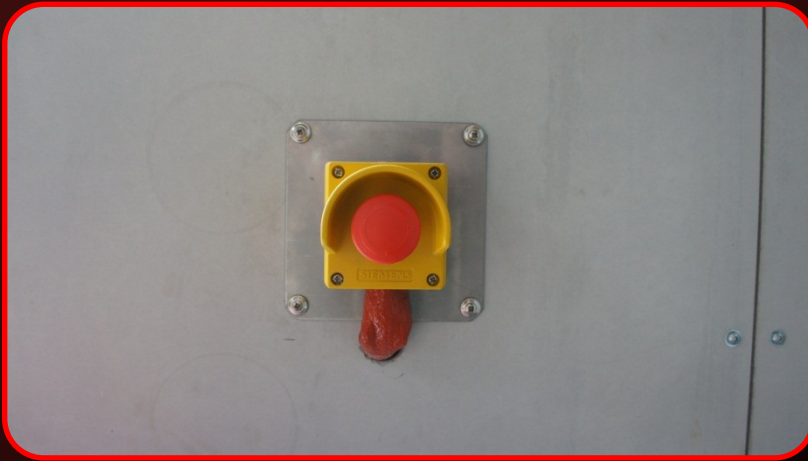
Flame Scanning

Scanning of the Pilot Burner is achieved with an Infrared system as used in industrial applications.

Thus it is very reliable! If the pilot flame is extinguished inadvertently it can be re-started within 1 sec.

Therefore only very short interruption of the exercise !





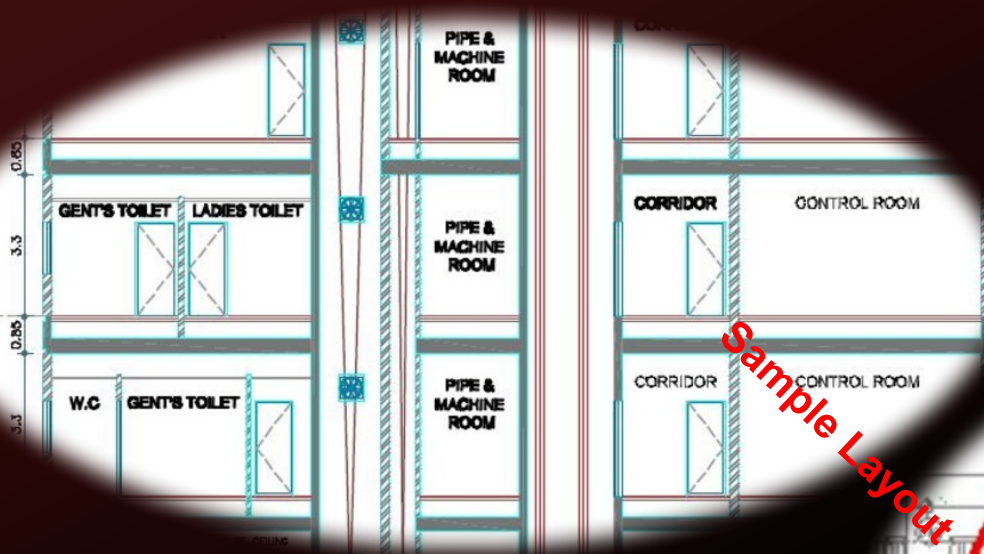
Emergency - Stop



Temperature Sensor

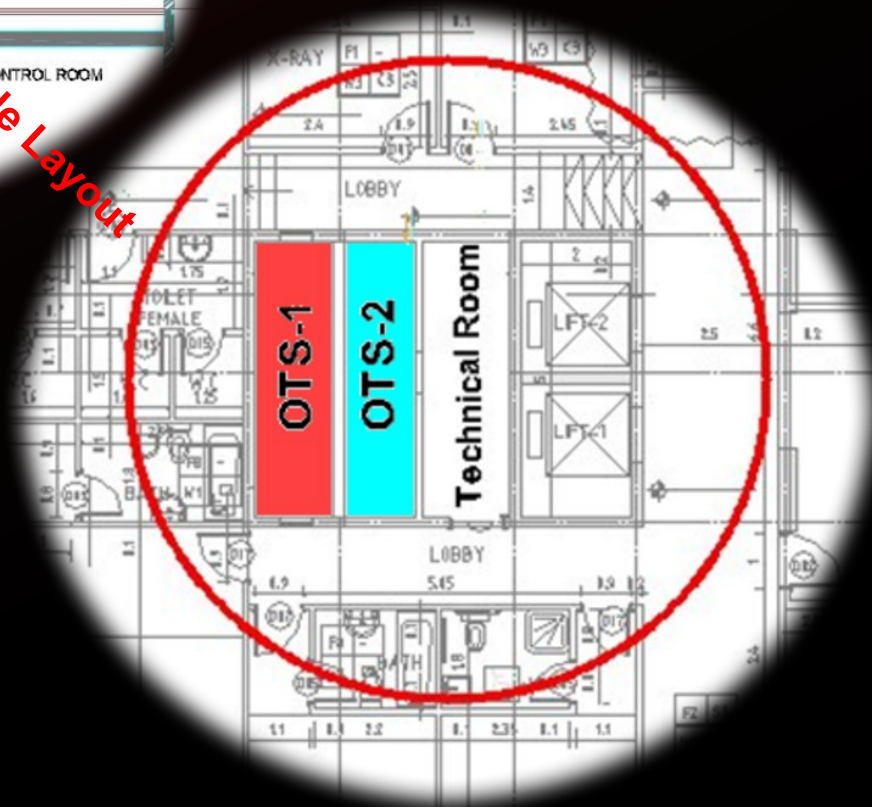


Gas Detection Sensor



OTS = Open to the Sky

- OTS-1 : Exhaust Ventilation
- OTS-2 : Combustion Air and Installation Shaft for
 - Gas Pipes
 - Compressed Air
 - Drainage Pipes





Unique, patented
double floor system



For each fire simulation section a separate distribution cabinet is installed. It contains all the components for the fire simulation modules, smoke generators, Emergency-stop system, radio transmitter/receiver, ventilation and other components for the control of the fire simulation section.



For the connection between the main control cabinet in the control room and the distribution cabinets fibre optical cables are used to ensure unlimited, continuous data flow.



- Computer based PLC-Control System (intrinsically safe)
- In Fire Simulation Applications unique
- Characteristics:
 - Reliability
 - Flexibility
 - Operability
 - Extensibility
 - Programmable
 - Remote Diagnose & Support



- Proven System Software
(HBA Feldkirch, LFWS Geretsried, FRTC Frankfurt, LFWS Salzburg, BF Düsseldorf, HRB Abu Dhabi, ...)
- Control of all system components
- Divers Setting Possibilities (Parameterization)
- Automatic Fire Process Control
- Training scenarios can be programmed and saved in so-called Recipes
- Possible Fire Place Adjustment Parameters:
 - Fire-fighting Exercise Level 1 - 9
 - Setting of Exercise Level for each Fire Place individually
 - Development time of Flame Size
 - Time delay until re-ignition occurs
 - Temperature Level where back fire occurs
 - Activation of the Fire Places selectively
 - Activation of all Fire Places in the Sector simultaneously



Control Room with State of the
Art Plant Control System...

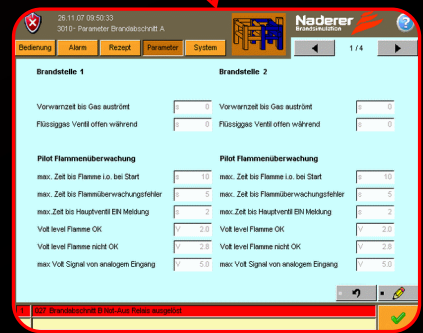
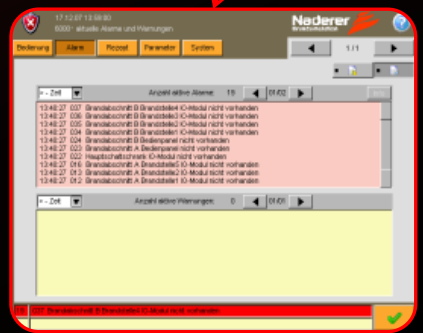
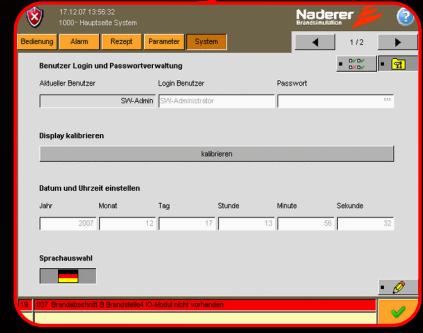
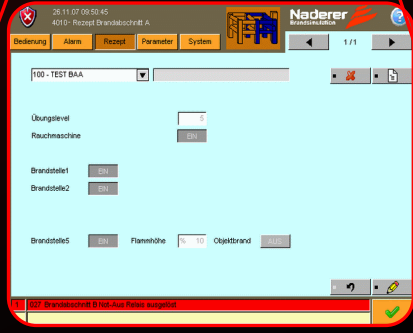
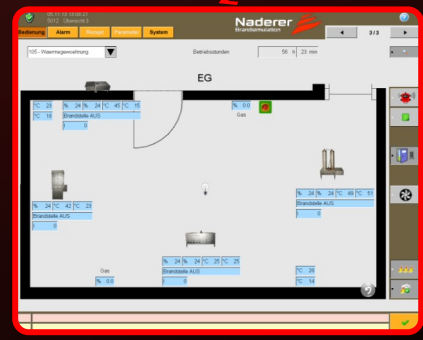
...with high resolution
Touchscreens

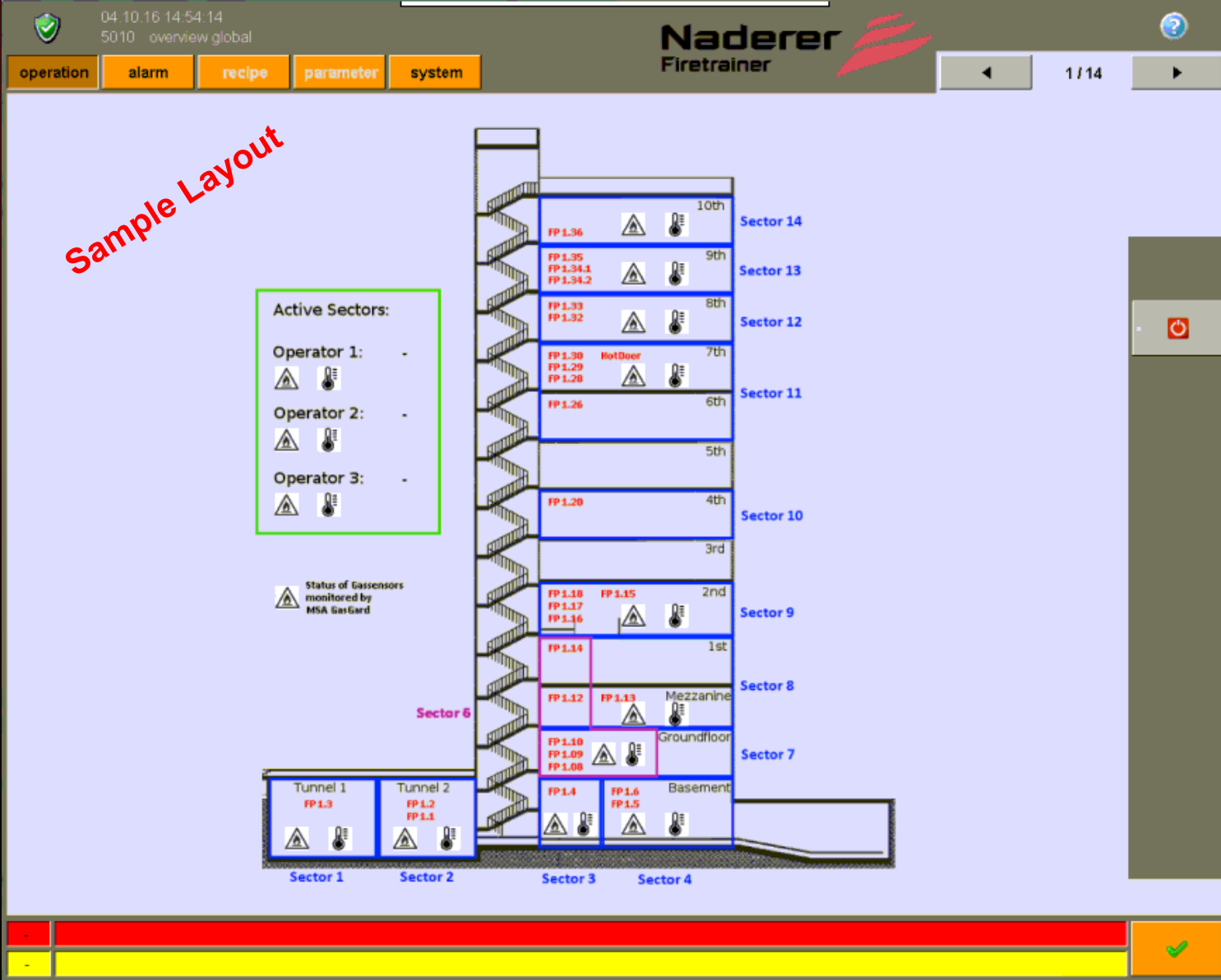
Sample Layout

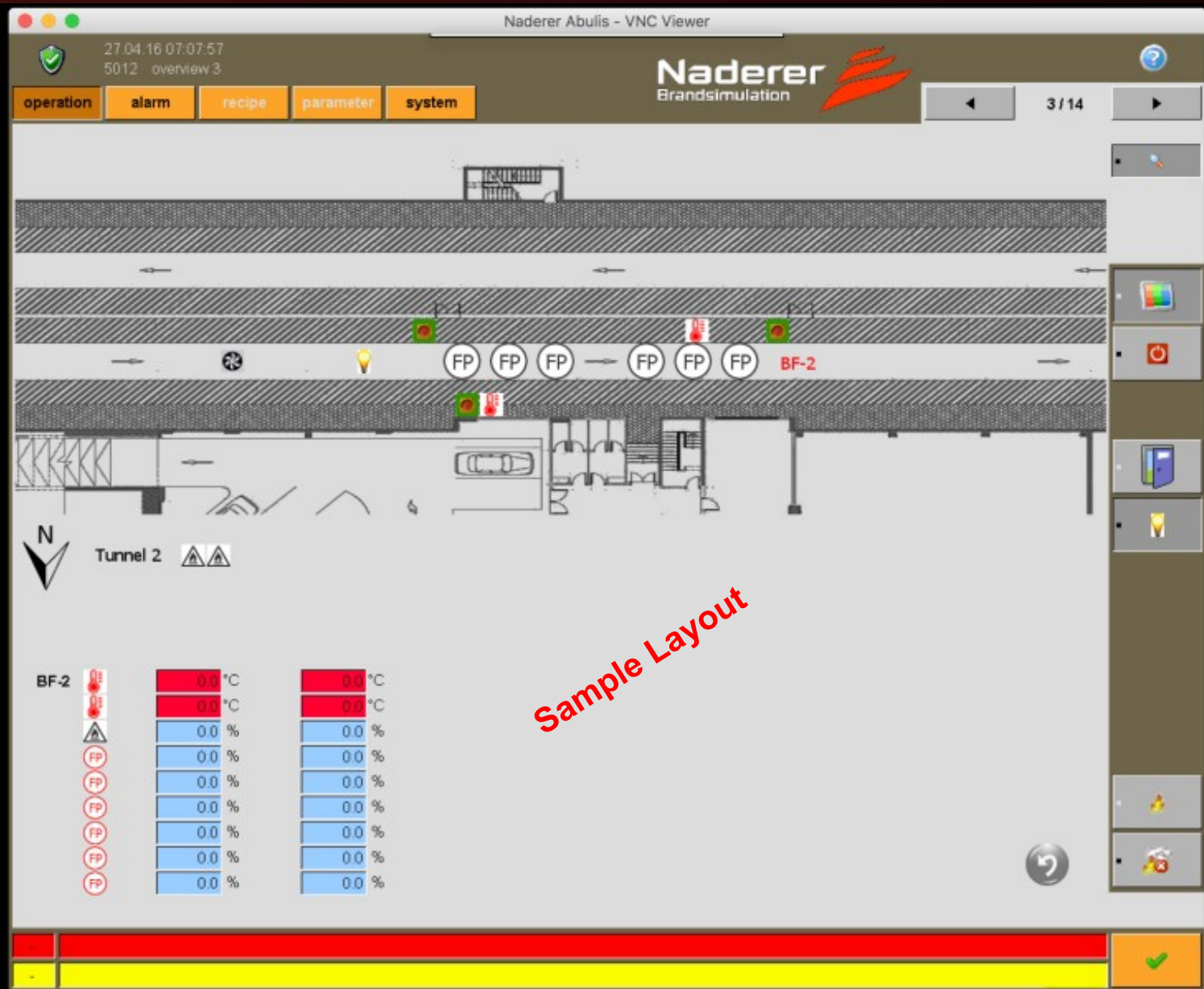


Operators Terminal - Navigation

Sample Layout

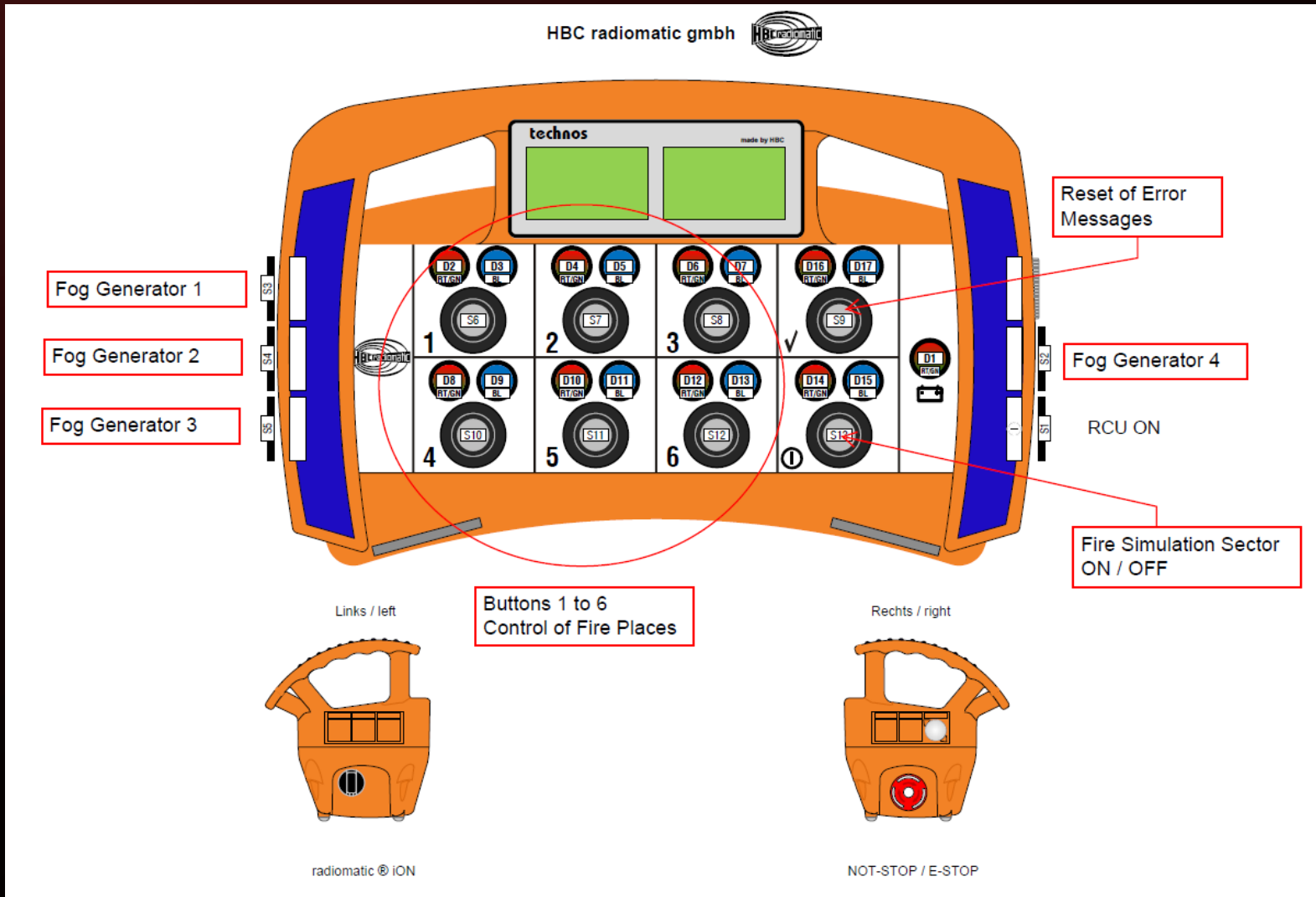








Wireless Remote Control Unit



Mobile Fire Training Container



Mobile Fire Training Container





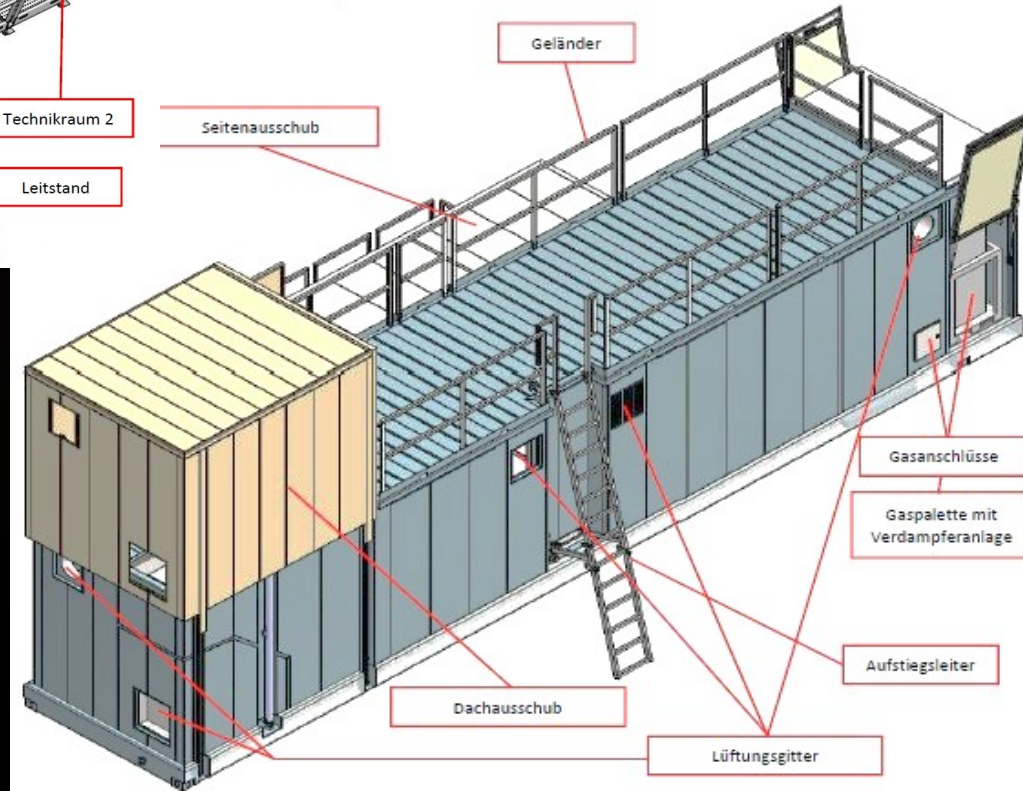
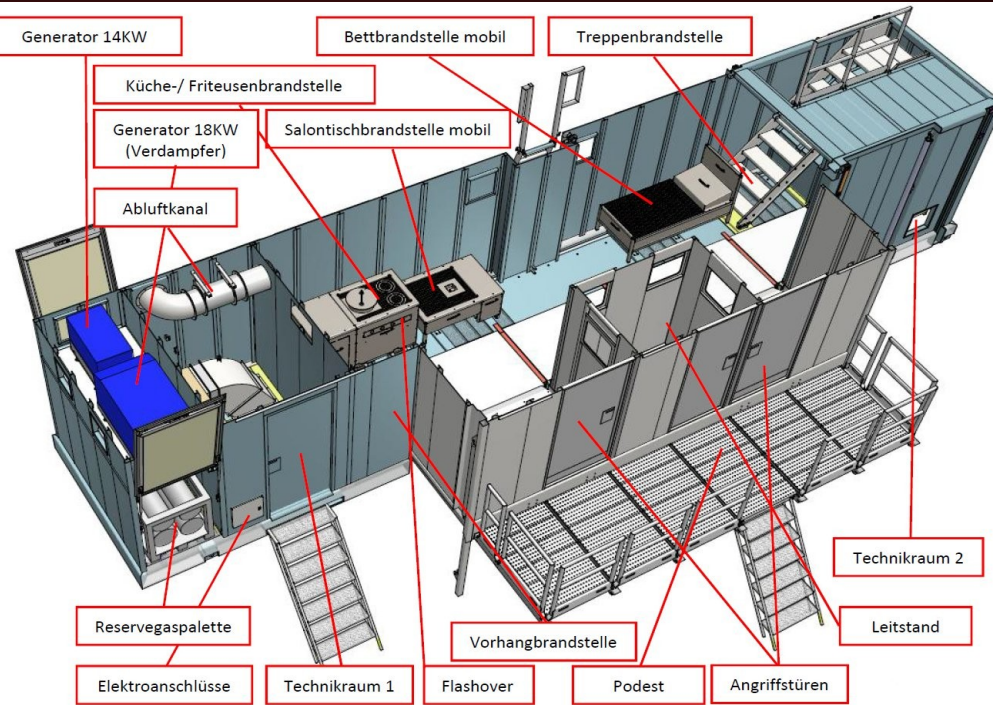






vertical & lateral
Extensions







Industrial Fire Training Plant



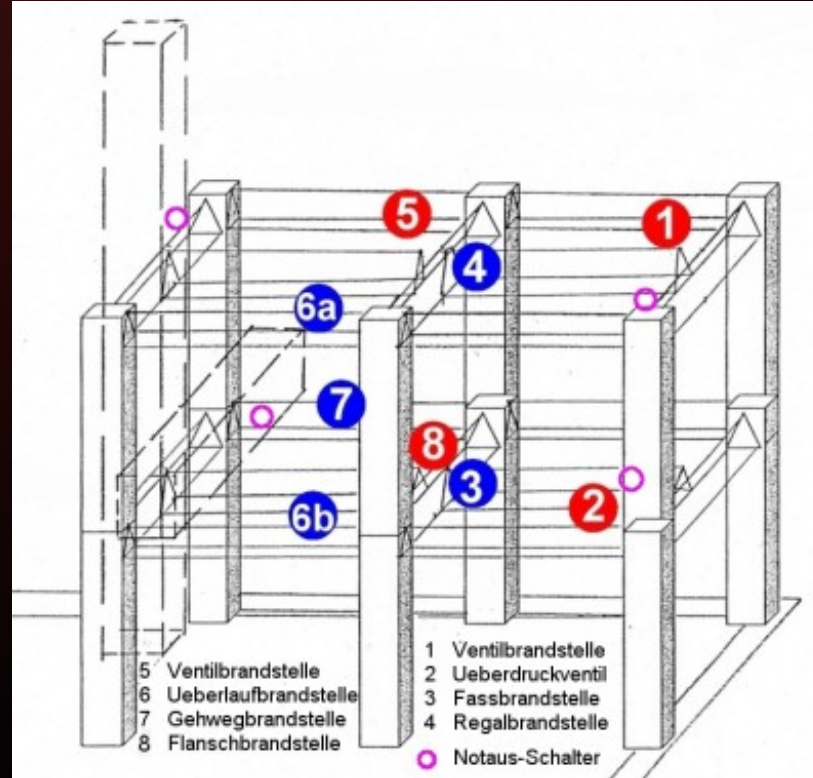
Training Centre Andelfingen, Switzerland



Large gasfired industrial fire
training plant



Industrial Fire Training Plant







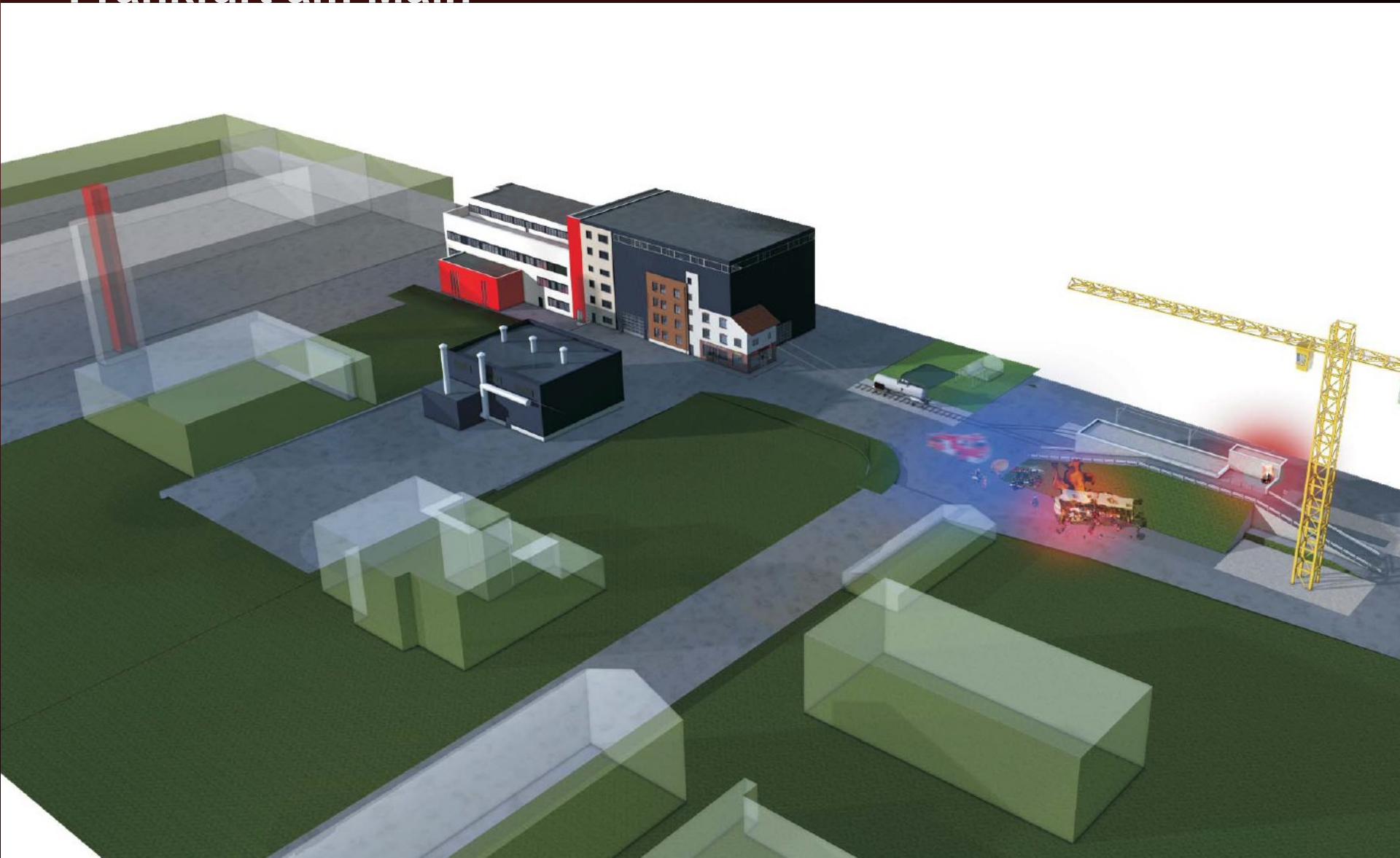




- 1 Valve Fire
- 2 Pipe section on Fire
- 3 Surface Fire 50 m²



(FRTC) Fire- and Rescue Training Centre Frankfurt am Main





Firehouse



Frankfurt am Main



(FRTC) Fire- and Rescue Training Centre Frankfurt am Main

Naderer
Brandsimulation



Doppelboden-System
Double Floor System



Dach-Brandstelle
Fire Place Roof



Bett-Brandstelle
Fire Place Bed

Flange Fire





Bedienarbeitsplätze
Operators Control Stations



Brandraum Obergeschoss
Fire Training Room Upper Floor



Küchenbrand
Kitchenfire





Technikraum OG
Technical Room 1stF

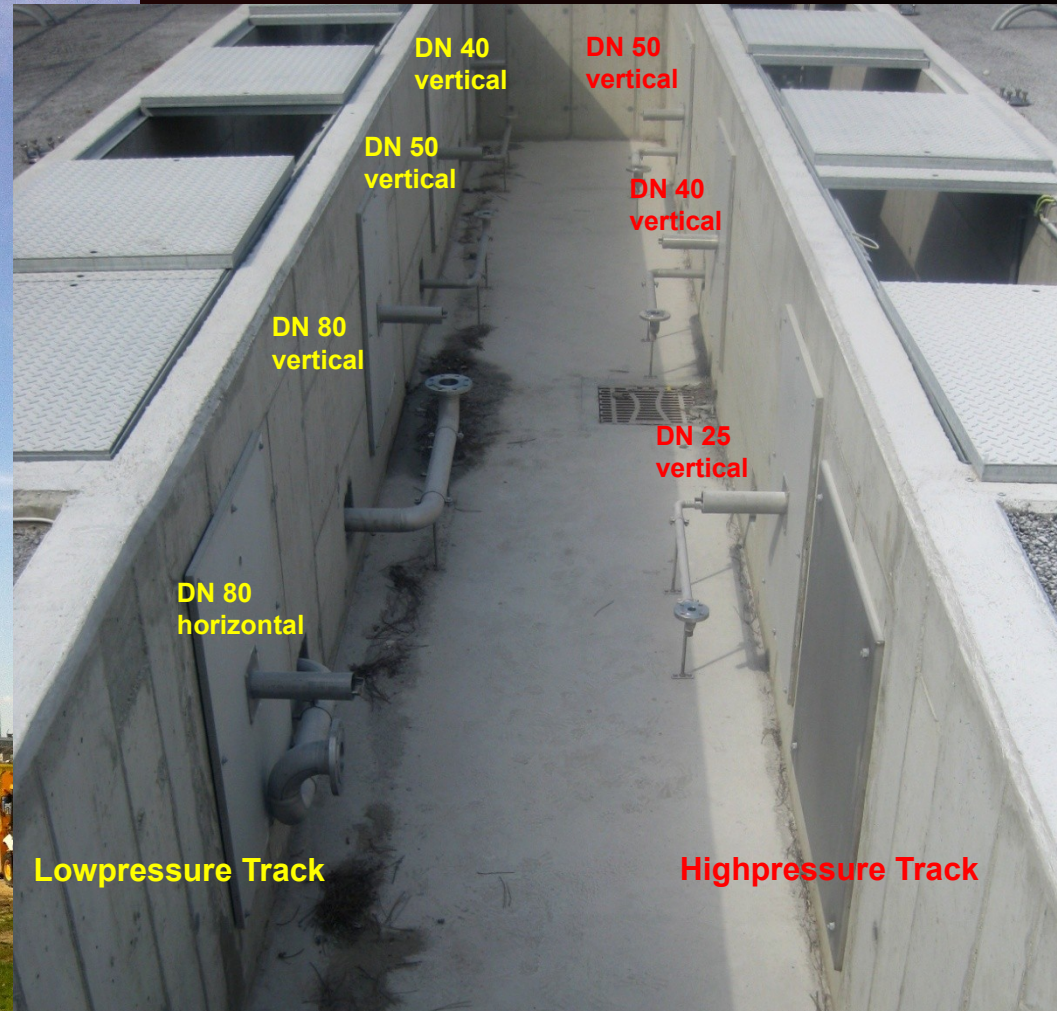


Elektroverteilerschrank
Electrical Distribution Cabinet



Flashover

Trench Gasleak Fire Simulation



Trench Gasleak Fire Simulation



OMV Petrobrazi Refinery, Ploiesti, Romania

Naderer
Brandsimulation



Industrial Fire Training Plant



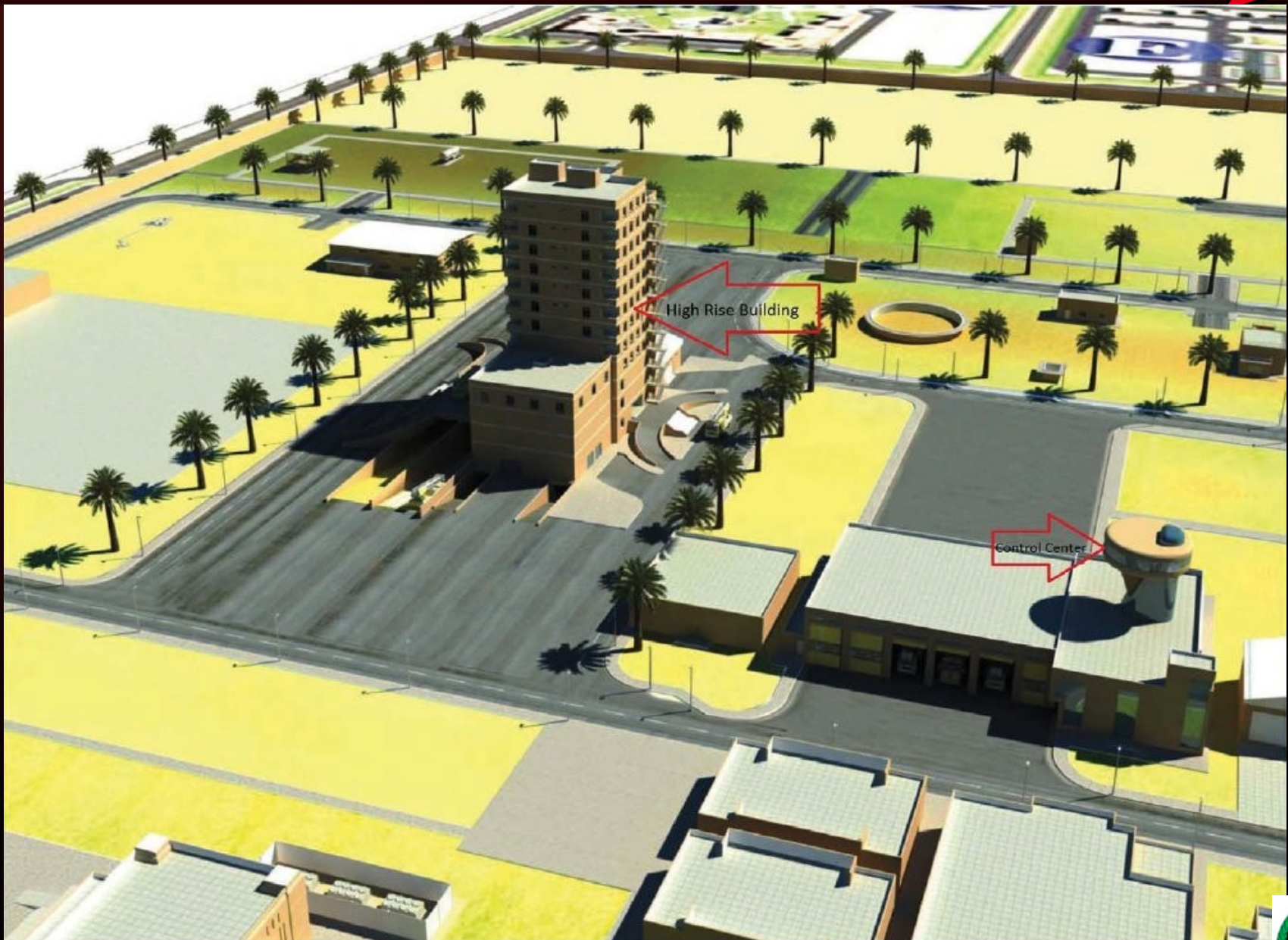


High Rise Fire Training Building Tunnel Training Aerea HAZMAT - Training



High Rise Fire Training Building for Civil Defence Training Academy





High Rise Fire Training Building for Civil Defence Training Academy





High Rise Building

Control Tower





High Rise Fire Training Building for Civil Defence Training Academy



High Rise Fire Training Building for Civil Defence Training Academy



High Rise Fire Training Building for Civil Defence Training Academy

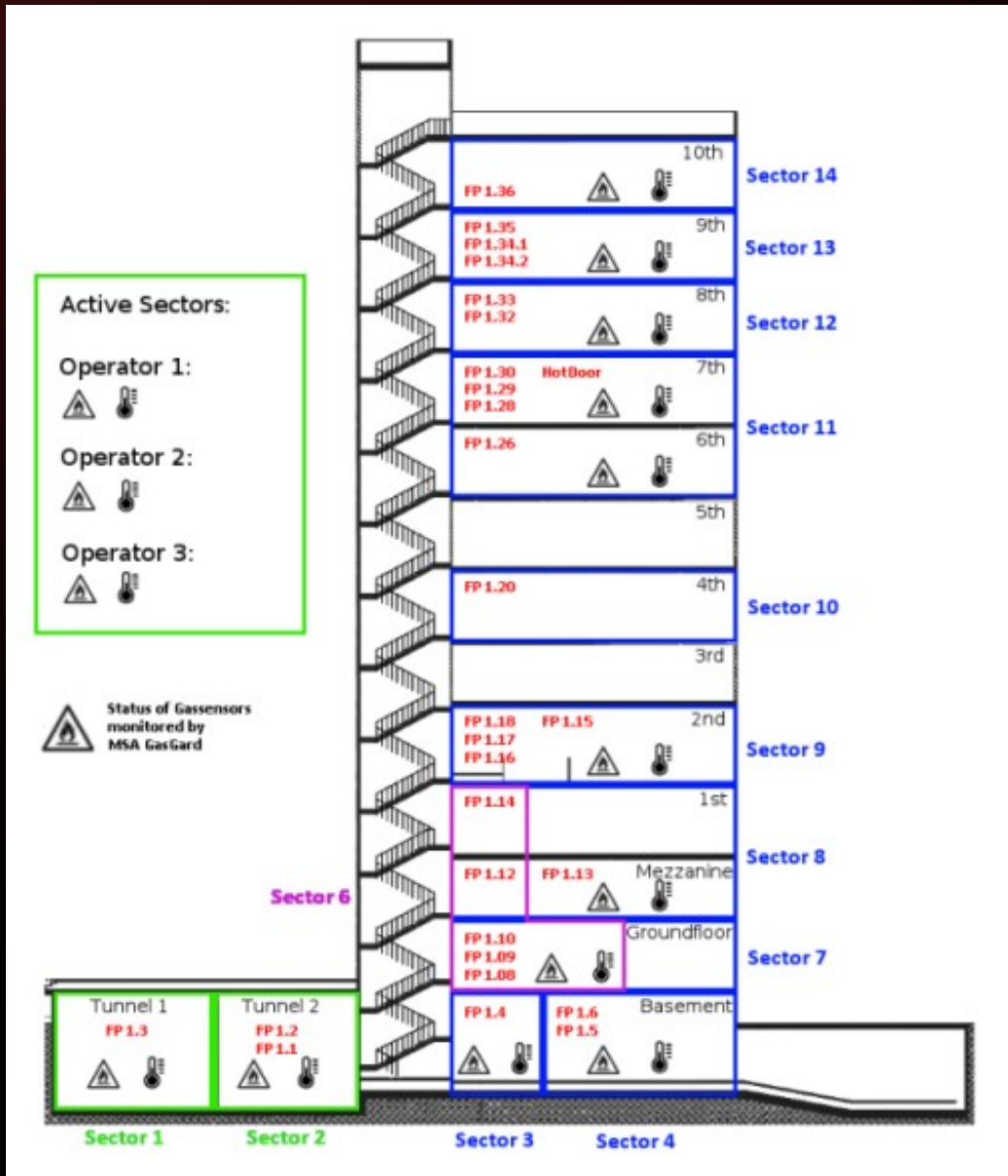
Flashover with Ceiling Fire





To control:

- 14 Fire sectors
- 3 Operator stations
- 3 Wireless remote control units
- 3 Fire sectors + HAZMAT can be operated simultaneously
- 27 Fire simulators with 35 Fire places & 45 stages of Fire.
- 1 Hot Door
- 1 Special Effects Cabinet 4th Floor
- 13 Special Effect Props in the HAZMAT
- 24 Smoke generators
- 10 Smoke distribution flaps
- 50 Gas sensors
- 37 Emergency stops
- 57 Emergency lights
- 90 Thermal sensors
- 61 Thermal probes
- 20 Combustion air fans
- 24 Exhaust axial fire gas fans
- 4 Exhaust roof fire gas fans
- 2 Circular duct fans
- 139 Solenoid gas valves
- 44 Solenoid air valves
- 23 Solenoid water valves
- 7 Solenoid acids valves
- 34 Regulating motor gas valves
- Flue Gas Cleaning Plant (Smoke Filtration)
- 28 Day/Night & 27 Thermal Cameras



Aircraft A320 Wing & Landing Gear Fire



International Airport Al Ain, Abu Dhabi



More Safety
More value

ZERTIFIKAT

Nr. 21 87 08 56269 081

Zertifizierten: Naderer Brand Simulation GmbH
Gründungsstr. 8
70771 Bad Saulgau
DEUTSCHLAND

Produktions-
stätte(n): 8024

Prüfstellen:



Produkt: Brandsimulation
Modell(e): Finpocket Business

Kennzeichen:
Ausführung 1: Manual
Ausführung 2: computerisierte Brandsimulation
Ausführung 3: mit integrierter Rauchgasanalyse
Trennungsfähigkeit bei Anwendung in Kombination
TUV SUD
Normierung: DIN EN 12167
Anwendung für Feuergefahr: 100-100%

Geprüft nach:

EN 12167-1:1997
EN 12167-2:2004
EN 12167-3:2004
EN 12167-4:2004

Das Produkt wurde auf bestmöglicher Basis auf die Einhaltung der grundlegenden Anforderungen
geprüft und kann mit den angegebenen Parametern gekennzeichnet werden. Eine
Veränderung der Darstellung des Produktes ist nicht erlaubt. Unzulässige Änderungen sind
beim Nachbau zu vermeiden.

Prüfbericht Nr.: TUVSUD-F 122142

Ausg. Nr.: 2010-08-01

Bezug: 2007-08-01

Seite 1 von 1



TUV SUD Product Service GmbH - Zertifizierung - Wirtschaftsprüfung - Ingenieurbau - Sicherheit

BESCHNEIGUNG ♦ ATTESTATION ♦ 证明书 ♦ СВИДЕТЕЛЬСТВО ♦ CONSTANCIA ♦ ATTESTAZIONE



Industrie Service

ATTESTATION

on the

Test of the Functional Safety and the related Electrical Equipment
of Representation Appliances in a Fire Training Building

Test Laboratory TÜV SÜD Industrie Service GmbH
Feuerungs- und Wärmetechnik
Ridlerstrasse 65
80339 München, Germany

Subject of Test Project Fire Training Building, Phase II
Representation appliances for fire scenarios
in a fire training building including the connection
to the supply line of liquefied petroleum gas

Ordering Company Naderer Brandsimulation AG
Ocostraße 20, 5330 Bad Zurzach
Switzerland

Location Civil Defence Training Academy
Abu Dhabi

Basis of Test DIN 14097-1:2005-05
DIN 14097-2:2005-05
DIN EN 746-2:2011-02

Test Report E-F 2134-02/17 dated 2017-06-14

The tests in the scope of the order have been performed with positive results.
The results in detail, the evaluation of the results and the conclusions out of
the results are described in the above mentioned test report.

Munich, 2017-06-23

Feuerungs- und Wärmetechnik

Johannes Steiglechner

Headquarters: Munich
Trade Register Munich HRB 90 869
VAT ID No. DE129484218
Information pursuant to Section 2(1)
DL-InfoV (Germany) at
www.tuev-sued.com/imprint

Supervisory Board:
Prof. Dr.-Ing. Axel Stepien (Chairman)
Board of Management:
Ferdinand Neuwieser (CEO),
Dr. Ulrich Klotz, Thomas Kalnz

Telefon: +49 89 51 90 - 1027
Telefax: +49 89 51 90 - 3307
E-mail: feuerung@tuev-sued.de
www.tuev-sued.de/de

TUV®

TUV®



ZERTIFIKAT

Nr. 21 66 13 50208 002

Zertifizierten: Naderer Brand Simulation GmbH
Gründungsstr. 8
70771 Bad Saulgau
DEUTSCHLAND

Produktions-
stätte(n): 8024

Prüfstellen:



Produkt: Brandsimulation

Modell(e): Finpocket Eco

Kennzeichen:
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Ausführung 2: computerisierte Brandsimulation
Ausführung 3: mit integrierter Rauchgasanalyse
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Bezug: 2007-08-01

Seite 1 von 1



TUV SUD Product Service GmbH - Zertifizierung - Wirtschaftsprüfung - Ingenieurbau - Sicherheit

Feel the fire - go Naderer !



▪ **Switzerland:**

Naderer Brandsimulation AG
Occostrasse 20
CH-5330 Bad Zurzach
Tel.: +41 56-249 26 58 Fax: -59

▪ **Germany:**

HeatWave Fire Trainer Systems
Badstrasse 26
D-79761 Waldshut-Tiengen
Tel.: +49 7761 553 90 9-0 Fax: -23

▪ **China:**

Naderer Firetrainer China Ltd.
Huang Shan Road 3,
Mercury Building A1
Chongqing, China



feel the fire - go naderer

Partners:

PfE Premiers for Equipment

Mr. Raid Yaghi
Sh. Zayed 1st Road
P.O.Box 37438
UAE - Abu Dhabi
United Arab Emirates



Beijing Bei-An Safe & Tech. Co. Ltd.

Mr. Li Howard Huating
Room 608, Lisheng Building
Wangfujing Street,
Dongcheng District
CN - 100055 Beijing

