

SURVIVAL MODULE

A NEW APPROACH ON EMERGENCY RESPONSE

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TOPICS

- ORDINARY RESPONSE
- REASON TO CHANGE
- REQUIRED EXPERTISE
- DESIGN TO SURVIVE
- HOW IT WORKS?
- SURVIVAL MODULE CATEGORIES
- TYPICAL ONSHORE/OFFSHORE INSTALLATION
- MAIN FORES EXPERIENCES
- Q&A

ORDINARY RESPONSE

- H₂S MASKS
- PERSONAL BREATHING APPARATUS
- ESCAPE ROUTE
- MUSTER POINT



REASON TO CHANGE

- DURATION OF EMERGENCY
- NO PROTECTION FROM FIRE
- NO PROTECTION FROM BLAST
- READINESS OF THE SYSTEM
- LIMITED PROTECTION OF MASKS OR
PERSONAL BREATHING APPARATUS



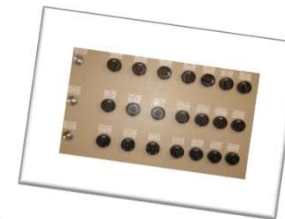
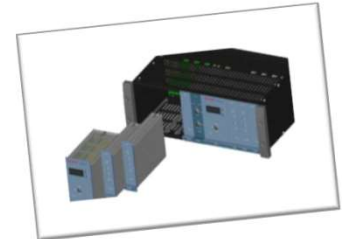
REQUIRED EXPERTISE

PRODUCT FAMILIES

- ANALYZER SHELTERS
- E&I SHELTERS
- LABORATORIES
- LOCAL EQUIPMENT ROOMS (LER)
- FIELD AUXILIARY ROOMS (FAR)

MAIN COMPONENTS

- GAS DETECTORS
- PLCs
- HVACs
- DISTRIBUTION PANELS
- ANALYZERS



DESIGN TO SURVIVE

TYPICAL INPUT DATA

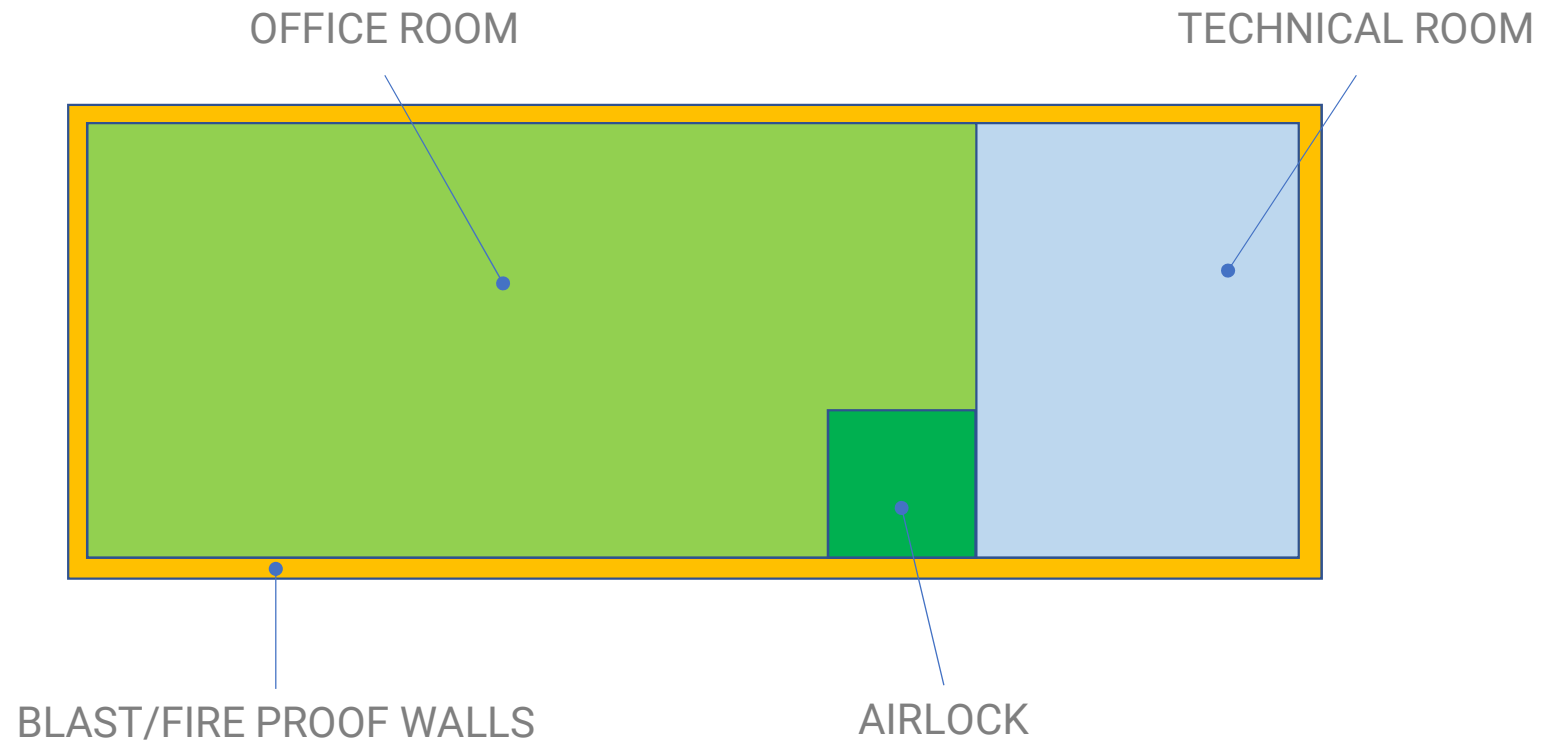
- BLAST PROOF
- FIRE RESISTANCE
- No. OF PEOPLE TO PROTECT
- HAZARDOUS AREA DESIGN
- AIR BREATHING SYSTEM
- HVAC
- 3rd PARTY APPROVAL

RESULT OUTPUT

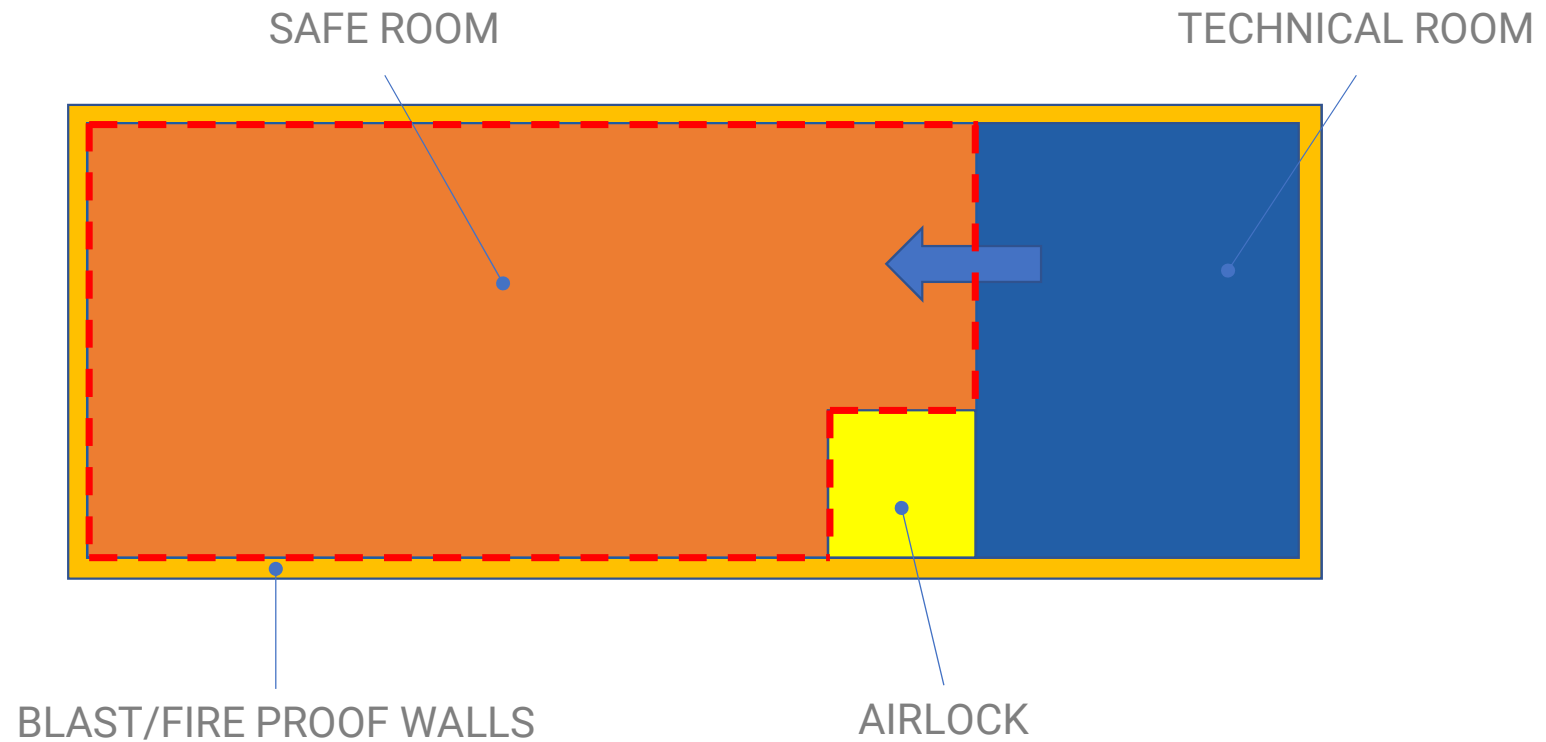
- 650mbar FOR 150ms
- 1 OR 2 HOURS [SOLAS H60/H120]
- 20/40/60 PERSONS
- ZONE 1 or ZONE 2
- No. OF AIR CYLINDER BOTTLES
- COOLING/HEATING CAPACITY
- DNV, BV, LLYOD'S, ETC



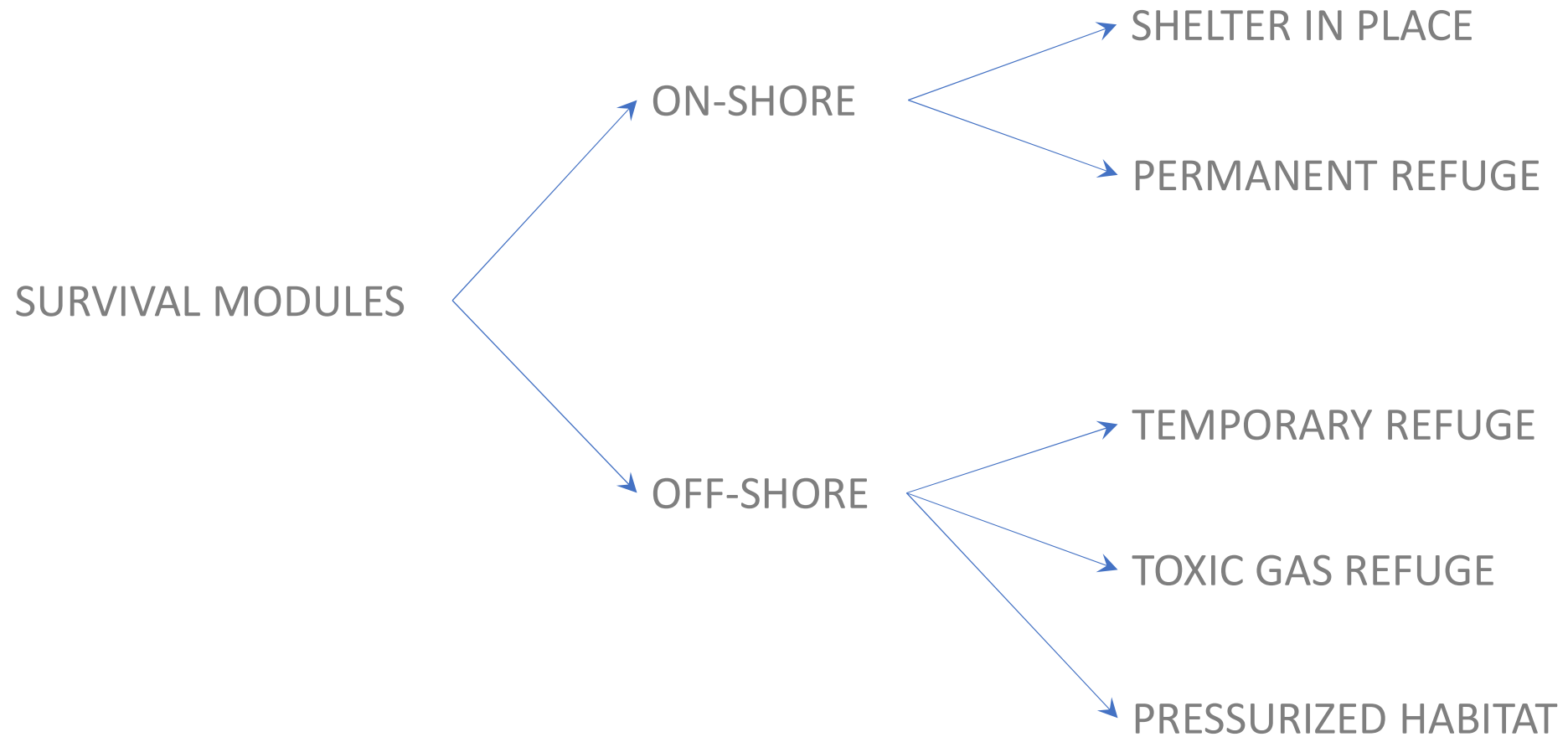
HOW IT WORKS? [NORMAL MODE]



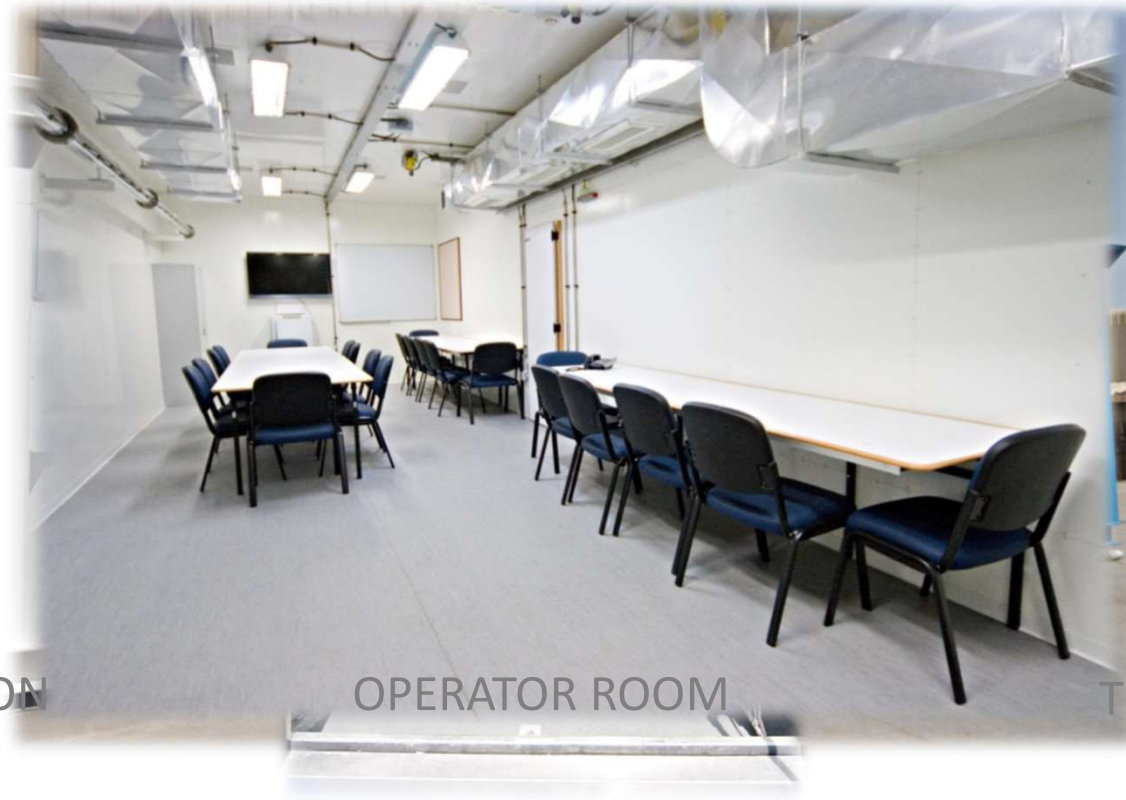
HOW IT WORKS? [EMERGENCY MODE]



SURVIVAL MODULE CATEGORIES



TYPICAL ONSHORE INSTALLATION



ONSHORE INSTALLATION

OPERATOR ROOM

TECHNICAL ROOM

TYPICAL OFFSHORE INSTALLATION



OFFSHORE INSTALLATION

OPERATOR ROOM

TECHNICAL ROOM

MAIN FORES EXPERIENCES

CLIENT	Q.TY	PLANT	LOCATION	APPLICATION	No. OF PERSON
GASCO	8	Habshan & BAB	UAE	onshore	480
SAIPEM	4	Shah Gas	UAE	onshore	160
ADMA OPCO	2	Zakum Island	UAE	offshore	40
KCOI	1	Kashagan Field	Kazakistan	offshore	270

THANK YOU!

Q&A?