



# EDATHESS

GAS DISTRIBUTION COMPANY

THESSALONIKI - THESSALIA S.A.

DISTRIBUTION AREA: REGION OF THESSALY

## 2nd PREPAREDNESS DRILL - SAFETY OF GAS SUPPLY

27 June 2018

«Damage to an insulating connector at the Distribution Network Entry Point, North Larissa - Emergency supply of an industrial customer with CNG»

11 150  
VÉES  
συνδέσεις  
(Δευτέρα - Παρασκευή: 08:00 - 16:00)

10 302  
τηλέφωνο  
άμεσης επέμβασης  
(24 ώρες το 24ωρο)

## Precaution measures to deal with crises

- On **June 2018** in **Thessalia**, a preventive inspection of the contractor company was carried out, to ascertain the completeness and safety of the CNG Emergency Intervention equipment, by **EDA THESS'** representatives from Corporate Affairs, Network Development & New Connections, Network Operation & Maintenance, as well as Quality, Health & Safety Units.



ΝΕΕΣ  
ΣΥΝΔΕΣΕΙΣ



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## Precaution measures to deal with crises

- Audit on the CNG trailer, the decompression cabin and the contractor's CNG transport equipment, was performed.



## Precaution measures to deal with crises

- Moreover, a test on the functionality of the CNG decompression cabin was performed for detecting possible leakage or possible damage on the heating boilers, the regulators etc.



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## 2<sup>nd</sup> Preparedness Drill – Safety of Supply License Area of Thessalia

- The 2<sup>th</sup> Preparedness Drill for the year **2018** of **EDA THESSALONIKI-THESSALIA** was successfully conducted on **Wednesday 27 of June 2018** in **Thessalia**. The success was achieved through the contribution of all services involved and of **EDA THESS** staff, and the competent contractor company.
- The purpose of the drill conducted by **EDA THESS** in **Thessalia** was to:
  - test and check the completeness of emergency plans.
  - ensure the required cooperation between the competent structures, both **EDA THESS** and the Immediate Intervention Contractor and the CNG contractor.
  - improve coordination, communication and management of information
  - operation and supply of compressed natural gas CNG
  - **effectively deal with the incident**
- The scenario involved a «**Damage to an insulating connector at the Distribution Network Entry Point, North Larissa \_ Emergency supply of an industrial customer with CNG**»



## 2<sup>nd</sup> Preparedness Drill – Safety of Supply License Area of Thessalia

In the Preparedness Drill the following Units of **EDA THESS** participated:

➤ **Network Development & New Connections Unit**

- ✓ Communication with Authorities
- ✓ Organization & Scheduling of Preparedness Drill
- ✓ Operation of Emergency Call Center
- ✓ Verification of company' & contractors' vehicles equipment
- ✓ Collection of photo & audio material

➤ **Corporate Affairs Unit**

- ✓ Record of Preparedness Drill activities

➤ **Quality, Health & Safety Unit**

- ✓ Preparedness Drill calendar logging

➤ **Network Operation & Maintenance Unit**

- ✓ Execution of Preparedness Drill scenario



## 2<sup>nd</sup> Preparedness Drill – Safety of Supply License Area of Thessalia

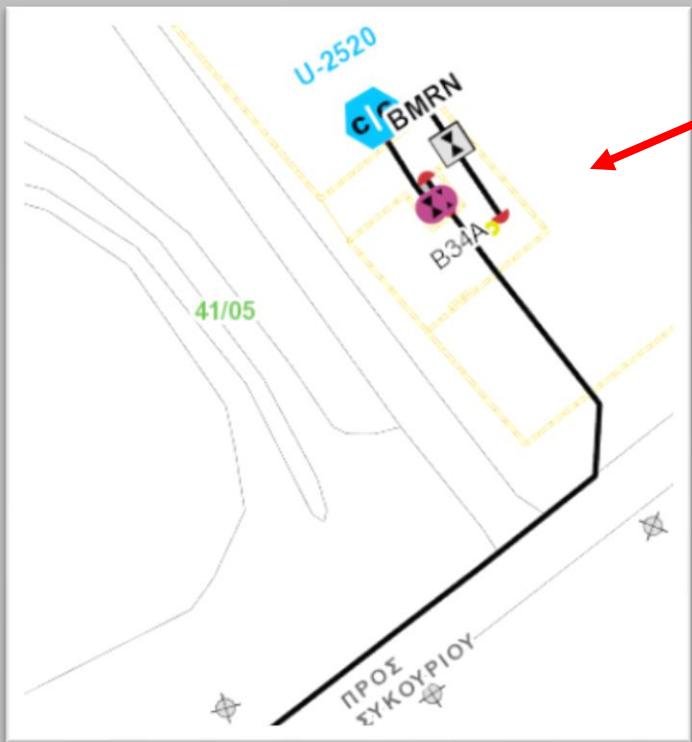
- The area Manager of Network Development & New Connections of Thessaly informs the General Manager about the beginning of the Drill.
- The drill was launched at **07:07 a.m.**, when a passing citizen calls **EDA THESS'** Emergency Call Center and states that he anticipates intense noise and smell of natural gas, within the fenced area of **Distribution Network Entry Point, in the Northern part of Larissa** .
- At **07:10 a.m.**, the Emergency Call Center transfers the call on the OPERATIONAL ON-CALL TECHNICIAN, who informs the ON-CALL TECHNICIAN (at **07:14 am**) about the incident.
- The emergency is that Industry Customer (EXALCO industry), supplied with natural gas by the IRI 05-01 Distribution Station, whose supply is cut - off, can not interrupt the production process. For this reason, the customer will be supplied by compressed natural gas (CNG) until the damage is restored.



# 2<sup>nd</sup> Preparedness Drill – Safety of Supply License Area of Thessalia

Drill venue

SPOT OF THE INSULATING CONNECTOR



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- At **7:36 a.m.** **EDA THESS** ' On - Call Technician arrives at the place of the incident and secures the surrounding area in order to perform the initial autopsy.
- He calls back to inform the Emergency Call Center about his arrival (**at 07:40 a.m.**).



- **EDA THESS**' technician **discovers** a rupture on the insulating connector at the Distribution Network Entry Point, which is located on the Northern part of Larissa. He also discovers a gas leakage and takes all the necessary safety measures on the area.

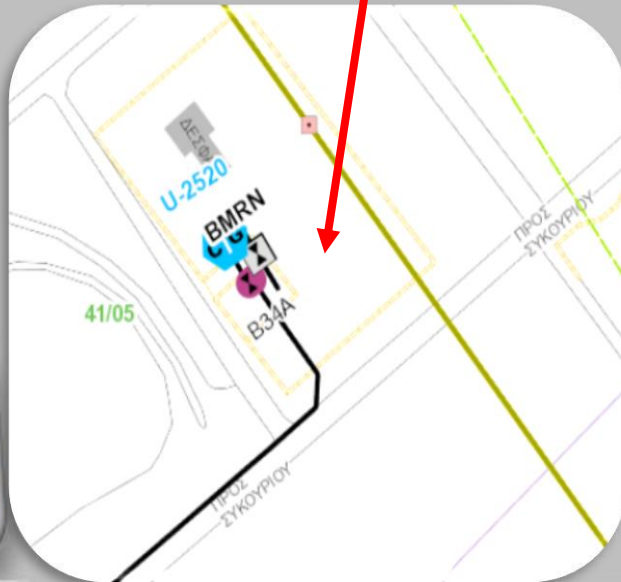
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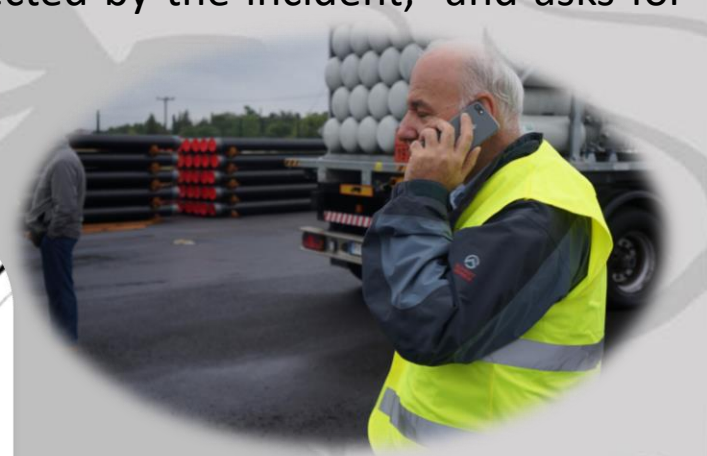
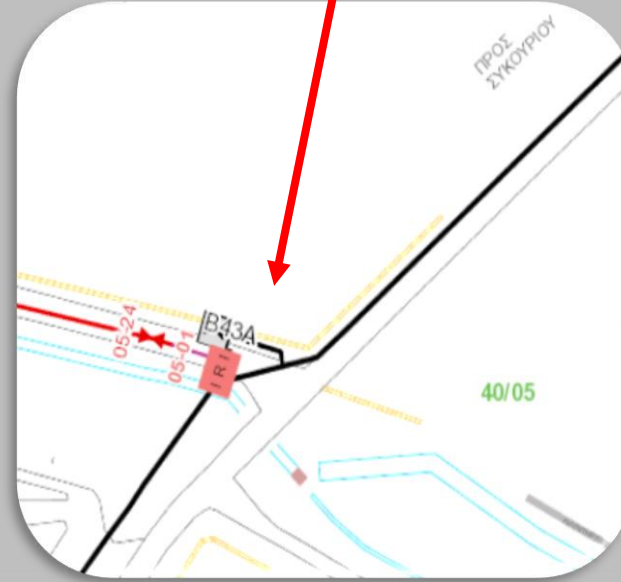
## 2<sup>nd</sup> Preparedness Drill – Safety of Supply License Area of Thessalia

- At **07:46 a.m.** the Technician informs the Operational On - Call Technician that for safety reasons that the supply must be shut off by closing the main valves.
- At **07:49 a.m.** the Area Manager of Network Operation & Maintenance of Thessaly, after informing the Manager of Network Operations & Maintenance, instructs the On-Call Officer to notify the Operational On-Call Technician to organize the group intervention and initially close the B34A valve and then the B4A and B2A and B43A valves. After, he informs the Area Manager of Network Development & New Connections of Thessaly about the areas affected by the incident, and asks for her assistance in order to provide information to the customers.

**Valve B34A**



**Valve B43A**

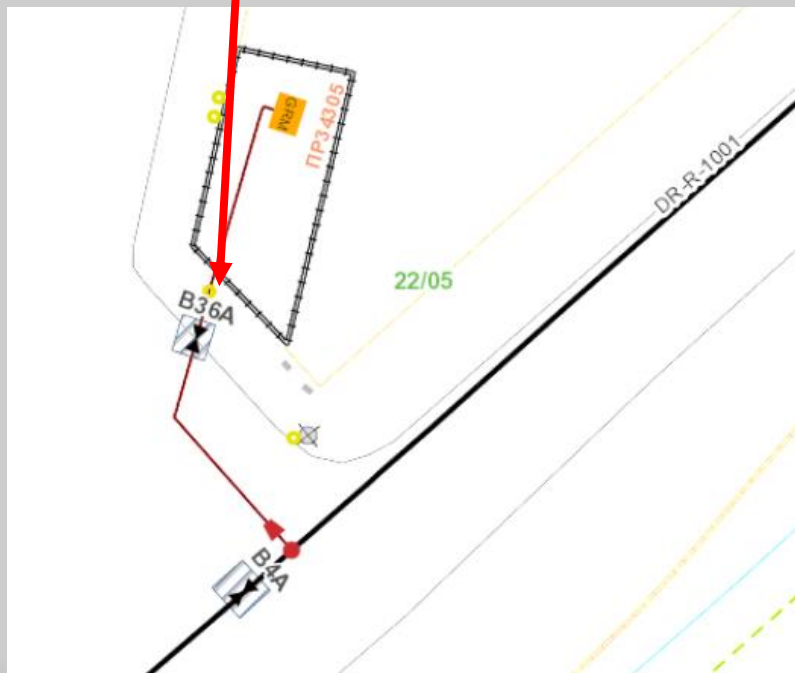


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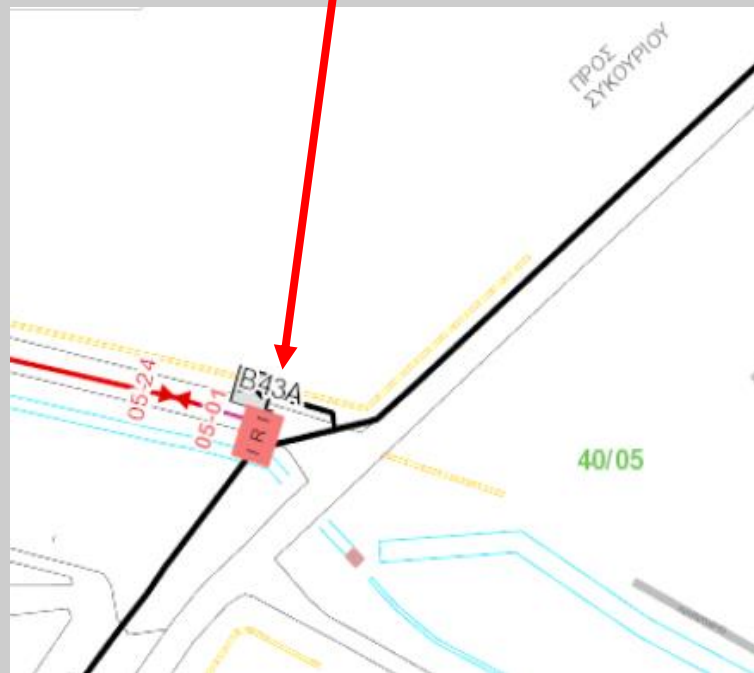
## 2<sup>nd</sup> Preparedness Drill – Safety of Supply License Area of Thessalia

Valve B36A



Valve B4A

Valve B43A



Valve B2A



- Points of EDA THESS' interventions to close the main valves.

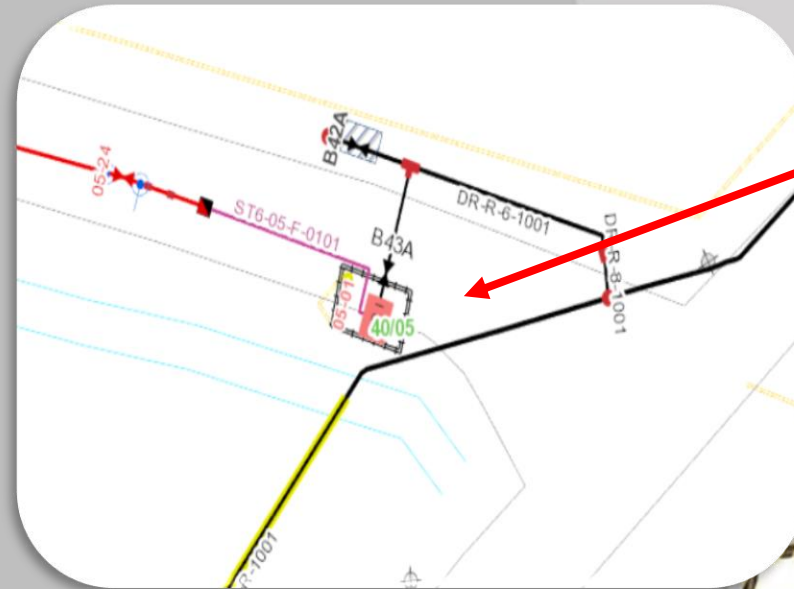
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- The Area Manager of Development & New Connections of Thessaly, is informed that EXALCO Industry can not interrupt the production line. Thereafter, she informs the Area Manager of Network Operation & Maintenance of Thessaly, who receives approval from the Manager of Operation & Maintenance, to proceed and call the CNG Emergency Intervention team of the contractor, to supply with 1000Nm<sup>3</sup> ( duration 2-3 hours) the Distribution Station, IRI 05-01 (Provincial Street of Larissa - Sikouriou).

**EXALCO  
Industry**



**IRI 05-01**

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### Interventions by EDA THESS

- At **07:53 a.m.** the CNG trailer consisting of 78 gas cylinders (175 bar and 2.925 m<sup>3</sup> total pressure), the decompression cabin vehicle and the contractor's personnel Transport Vehicle, are heading to the concerned area.



CNG Trailer



Decompression cab



## 2<sup>nd</sup> Preparedness Drill – Safety of Supply License Area of Thessalia

- The Technicians and the Head of Medium Pressure unit, are heading to the Distribution Network Entry Point of Northern Larissa, to begin with the works for network decompression and the repair of the damages.



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- At **08:30 a.m.**, EDA THESS' Technicians arrive at the Distribution Station IPI 05-01 and perform all relevant actions for the supply of the station with CNG (venting and opening the main valves for installing suitable racor-connectors for the CNG supply).



- At **8:35 a.m.** Contractor's CNG Emergency Intervention Team, intervenes with all staff and equipment (vehicles for PE pipes, Risers and Steel pipes etc) to repair the rapture and restore the gas supply.



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- At **08:50 a.m.** all preliminary works for the supply with compressed natural gas (CNG), begin:
  - Placing safety markings on the entrance of the IRI station 05-01.
  - Unloading the decompression cabin on the ground, next to the IRI Station 05-01, by using lifting machinery.
  - Installation of low and high pressure hoses , for connecting the trailer with the decompression cabin.
  - Installation of appropriate grounding.



- Checking and testing the functionality of the CNG equipment.

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- At **08:50 a.m.**, the Area Manager of Network Operation & Maintenance of Thessaly, the Manager of Network Operation & Maintenance, and the Operational On – Call Officer, arrive at the CNG site.
  
- At **08:56 a.m.** the Area Manager of Network Development & New Connections unit of Thessaly arrives at the incident venue and informs the Manager of Network Development & New Connections.



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- At **09:20 a.m.**, the contractor's CNG Emergency Intervention Team begins all relevant works for the gas supply with CNG.
- The compressed natural gas (CNG), initially enters the decompressor cabin via hoses at pressure of 100 bar, in order to detect possible leakage and then the pressure gradually increases up to 170 bar.
- The natural gas is being preheated to proper temperature with gas boilers (rising the temperature of the water) and through heat exchangers (water – natural gas).



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- At **10:00 a.m.** the compressed natural gas (CNG) begins to supply the IRI station 05-01, with inlet pressure approximately up to 16 bar and temperature at 15 °C. The supply duration is approximately 1 hour.



- At **10:30 a.m.** the pressure at the entry point of the decompressor is at 170 bar, while the inlet temperature of natural gas is at 16.5 °C.

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- At **11:00 a.m.**, the contractor's technician is gradually shutting of the valve on the decompression cabin by reducing the supply pressure.
- At that point, the pressure of compressed natural gas (CNG) on the CNG Trailer was measured at 145 bar (initial pressure 170 bar).



- At **11:08 a.m.** the restoration works on the raptured pipeline are completed by the contractor.

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- At **11:08 a.m.** the Area Manager of Network Operation & Maintenance of Thessaly, instructs the Operational On – Call Officer to proceed with the gas supply restoration on the Distribution Network, and stop the CNG supply on the IRI 05-01 station.
- The total consumption of natural gas is approximately **350 m<sup>3</sup>**.
- At **11:20 a.m.** the Operational On – Call Officer, calls back the emergency call center to inform about the restoration of natural gas supply and report the end of the incident.
- At **11:20 a.m.** the Area Manager of Network Operation & Maintenance of Thessaly, informs the Manager of Network Operation & Maintenance and the Area Manager of Network Development & New Connections of Thessaly about the successful completion of the Drill.
- At **11:25 a.m.** the Area Manager of Network Development & New Connections of Thessaly informs the General Manager about the successful completion of the Drill.



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- The Drill was conducted in compliance with all relevant procedures and instructions, while all necessary preventive actions were taken and inspections were made to the gas distribution system.



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