

POLAND





# Polish mine rescue system

## Tasks, Structures of Polish mine rescue system

The Act “**Geological and Mining Law**” issued in 1994, novelised in 2001 and following the **Act - executing rules in mining rescue area issued in 2002 (State Decree)** define: the task, the organization, the requirements regarding equipment needs and rescuers competences, the training needs and the way the rescue operation are to be performed. The main purpose of the mine rescue organization is to administer first aid to miners involved in hazards events like: rock bursts, fire, methane and/or coal dust explosions, roof-falls, water irruptions, etc.



# Polish mine rescue system

- **The Act has opened possibilities for new forms of organization in Polish mine rescue system structure which is considered now more flexible and effective.**
- **In Poland mine rescue organization depending on mine's hazards classification and is based on:**
  - **local mine rescue units and teams,**
  - **mine rescue stations,**
  - **specialized mine rescue companies,**

**The four independent structures cover rescue operation:**

- **Central Mine Rescue Station (CSRG),**
- **Mine and Smelter Rescue Company (JRGH),**
- **Gas and Oil Rescue Company,**
- **District Sulphur Rescue Company.**



**Wyższy Urząd Górniczy  
Katowice**



**Jednostka Ratownictwa  
Górnictwa Hutniczego  
Lubin**



**Centralna Stacja  
Ratownictwa Górniczego  
Bytom**

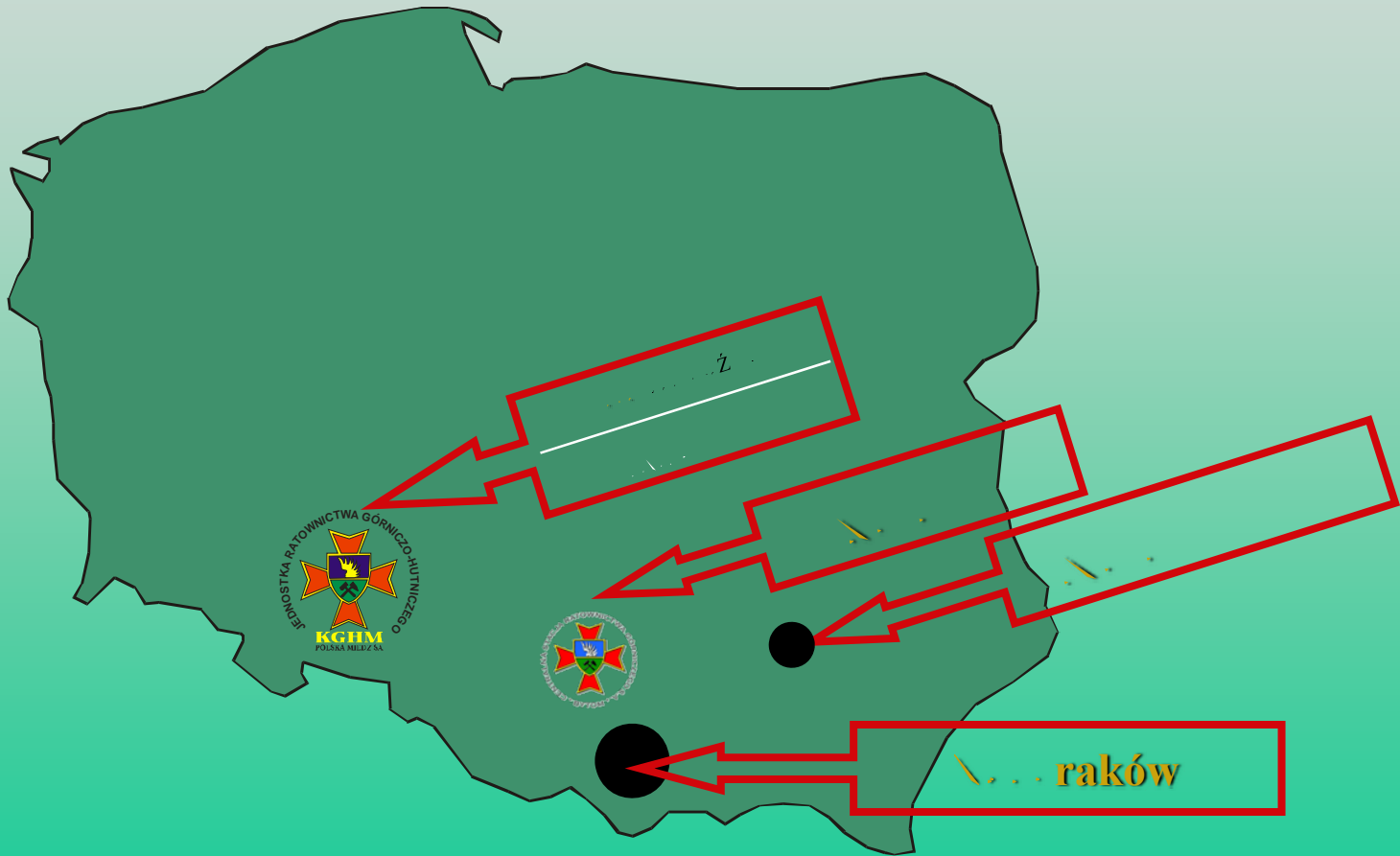
**Ratownicza Stacja  
Górnictwa Otworowego  
Kraków**

**Jednostka Ratownictwa  
Górnictwa  
Tarnobrzeg**

- 1. Z. Biele
- 2. Z. Cymański
- 3. K. Dzielny
- 4. K. Leszczyński, S. Marek
- 5. S. Marek
- 6. S. Marek, K. Leszczyński
- 7. A. Romanek
- 8. W. Ryjko
- 9. Z. Kotarski



# Localization of rescue companies in Poland



# **POLISH MINE RESCUE SYSTEM**

- **These Companies in co-operation with particular mine units (owned by mine operators) create an adequate rescue organization which covers all needs in the rescue demands for coal, copper, sulphur and oil and gas mining industry.**
- **Generally, the Rescue Stations of mentioned Companies are seats for emergency group quartering, base for training and storage place for necessary rescue and technical equipment.**

# KGHM Polska Miedź S.A.



LUBIN

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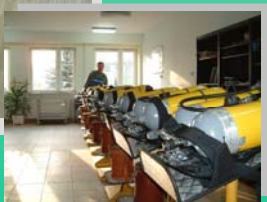
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**Oddział**

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**Mine and Smelter Rescue Company**



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# Company activities







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## Production results for 2004 :

<b>Copper</b>	-	<b>542 680 tonnes</b>
<b>Silver</b>	-	<b>1 336 tonnes</b>
<b>Metallic gold</b>	-	<b>476 kg</b>
<b>Crude lead</b>	-	<b>21 015 tonnes</b>
<b>Sulphuric acid</b>	-	<b>604 305 tonnes</b>
<b>Copper sulphate</b>	-	<b>6 870 tonnes</b>
<b>Nickel sulphate</b>	-	<b>2 160 tonnes</b>
<b>Technical selenium</b>	-	<b>83 tonnes</b>
<b>Slime Pt-Pd</b>	-	<b>34 kg</b>
<b>Salt</b>	-	<b>300 000 tonnes</b>



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- **Copper resources in the Copper Basin in LGOM (Lower Silesia) are estimated at 33.5 mln tonnes.**
- **This is one of the largest single deposits of this metal in the world.**
- **Current mining of this deposit is performed at a levels from 650 m to 1150 m.**
- **KGHM will be in a position to mine at a level deeper than 1150 m in a decade or so.**
- **Mining at deeper levels requires the solving of air conditioning problems, which affects mining costs.**



# Mine and Smelter Rescue Company, JRGH

**JRGH**, the subsidiary company of KGHM is the link in the Polish mine rescue system serving mines located in the South - West part of Poland. The system is based on two levels organization structures:

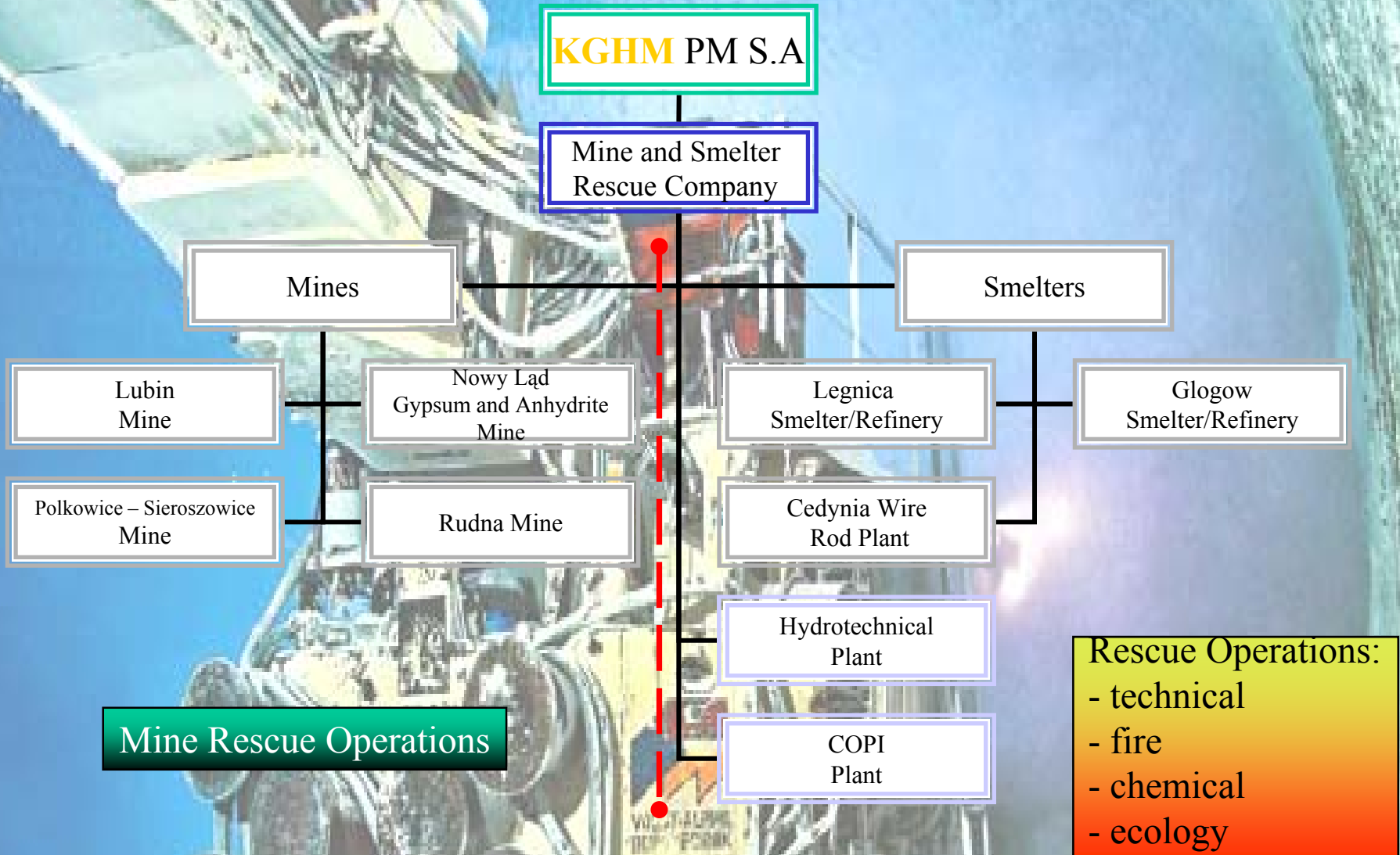
1. Mine station, rescue units in each mine - prompt for call
2. JRGH Emergency Station, three teams - ready to go.

About **400** volunteer rescuers coming from different mines participate twice a year (for one week period) in rescue activities and services in the emergency station.

**JRGH** teams are equipped for disasters and events like:

- rock bursts and roof falls,
- flood (with diving equipment),
- emergency shaft and alpine works,
- fires,

# Organizational chart of mines and plants assisted with JRGH rescue services



# Fires



# Rock burst and roof fall events



# Fire hazard - training



# Rock burst hazard - training

**In rock burst and rock fall operation targets are:**

- to determine positions of miners,
- to determine proper means are to be used for

**Typical equipment used during these operations:**

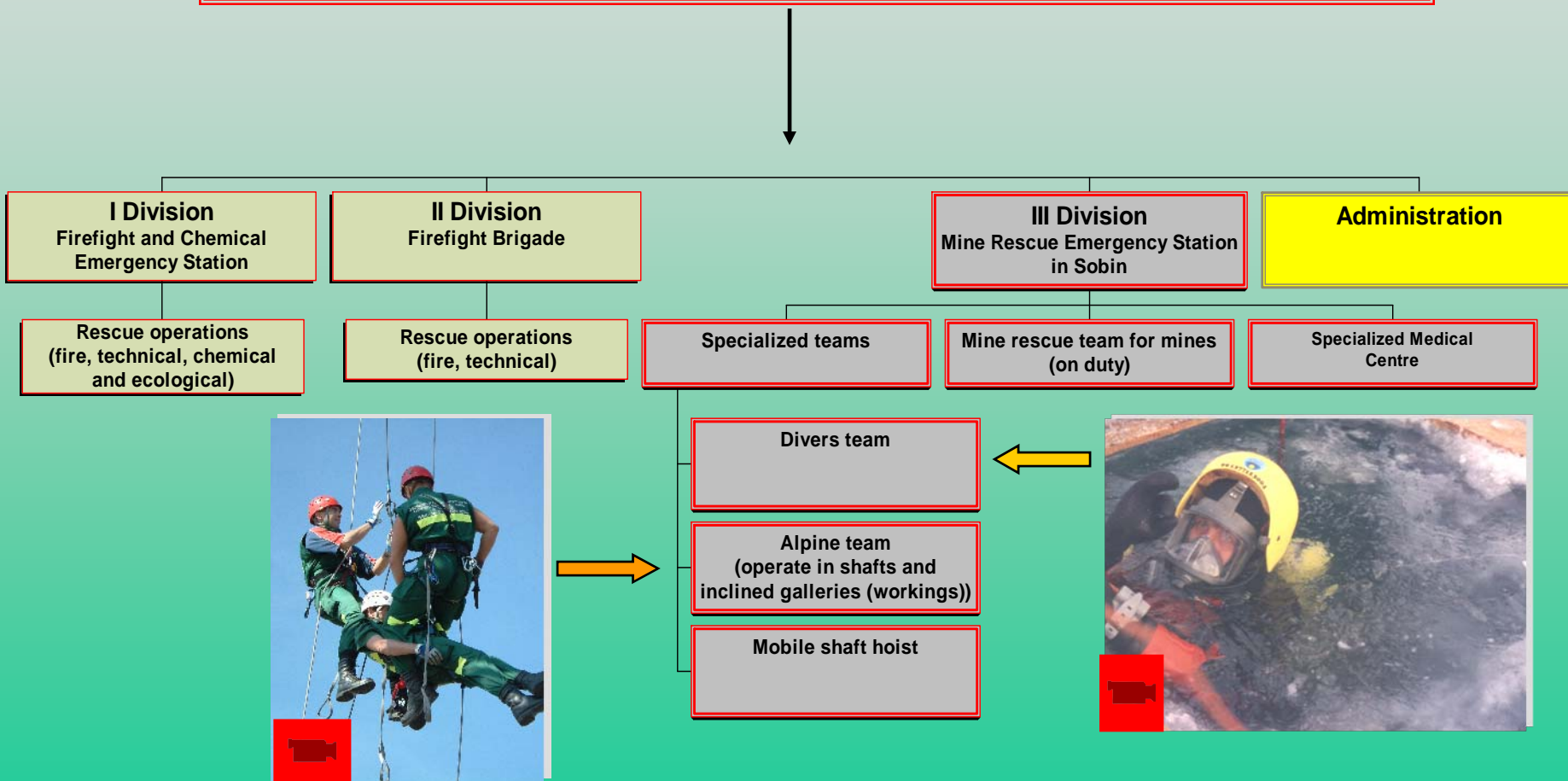
- pickaxes and crowbars, hydraulic and pneumatic tools for lifting and drilling and crushing rocks
- LHD loaders.





# Organizational chart of Mine and Smelter Rescue Company

## Mine and Smelter Rescue Company



# International Mine Rescue Contest

1. Polska KGHM



2. Chiny



3. USA – MSHA



4. Ukraina III



5. USA Calgi – Salt



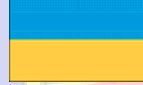
6. Australia



7. Peru



8. Ukraina V



9. Polska CSRG



10. Słowacja



11. Rosja



12. Albania



# Divers team



**Alpine team  
(operate in shafts and  
inclined galleries (workings))**



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# Authors

## 1. Wojciech Magiera    Wyższy Urząd Górniczy, Katowice

ul. Poniatowskiego 31, 40-956 Katowice tel.: 032/251-14-71 do 4,  
032/251-42-24 do 8, fax: (032) 251-48-84, (032) 251-31-96  
e-mail: wug@wug.gov.pl

## 2. Robert Podolski    Okręgowy Urząd Górniczy, Wrocław

Ul. Kotlarska 41, 50-151 Wrocław tel./fax: (071) 372-46-70  
e-mail: ougwroclaw@wug.gov.pl

## 3. Leon Budziłowicz    KGHM PM S.A. O/JRGH, Lubin

skr. poczt.33 Poczta Polska nr.3  
59 - 300 Lubin  
e-mail: jrgh@jrgh.kghm.com.pl  
www.kghm.pl

