Safety

- No exercise planned
- When an alarm, stay calm!
- Follow intercom and host instructions
- Go to meeting point: Refinery East Gate – „Tor Ost“
Agenda

**Introduction**
- Safety
- People

**BP**
- BP Bitumen – a bit about ourselves
- Modified products for high performance
- EME
- Performance Specifications (Europe)
- ...
  ~ Laboratory tour
  ~ Refinery tour
  ~ 15.00h Departure
BP Bitumen in Europe

- BP Bitumen Operation With BP refineries
- BP Bitumen Operation Without BP refineries

Legend:
- ▲ Bitumen Refinery
- ● PmB-plant
BP Refinery Landscape in Germany
Ruhr Oel GmbH (ROG)

BP refining in Germany takes place through Ruhr Oel GmbH, a Joint Venture between BP and Rosneft.

- Founded in 1983 between Veba Oel and PdVSA (each 50% share).
- ROG consists of a.o.:
  - Gelsenkirchen Refinery
  - Petrochemicals Gelsenkirchen
  - ROG-share in:
    - MiRO in Karlsruhe
    - BAYERNOIL on the Danube
    - PCK in Schwedt
Refineries and integrated Petrochemicals

- **PCK Schwedt**
  - 10.8 Mt/a (37.5 % ROG)
- **BP Lingen**
  - 4.4 Mt/a (100 % BP)
- **DHC Mülheim** (100 % ROG)
  - Ruhr Oel Gelsenkirchen
  - 12.7 Mt/a (100 % ROG)
- **Bayernoil Neustadt**
  - 10.3 Mt/a (25 % ROG, 10 % BP)
- **MiRO Karlsruhe**
  - 14.9 Mt/a (24 % ROG)
BP Gelsenkirchen: 1 Refinery – 2 Sites
Origin of the Crude

The majority of crude processed is from Russia and the North Sea.

Nameplate distillation capacity is 12.7 MT but maintenance and turn-arounds lowers the actual amount of processed crude.

Quelle: Standardpräsentation Raffinerie Gelsenkirchen
BP Bitumenen Germany

Region Benelux

Region North/East

Region West

Region South/Southwest

Region Switzerland/Austria

Fuels

BP Bitumen

Bitumen

Germany

Region North/East

Region West

Region South/Southwest

Region Benelux

Schwedt

Refinery PCK

Gelsenkirchen

BP Refinery and Central Lab

Karlsruhe

Refinery MiRO

Vohburg

Refinery Bayernoil

R&M Technology
BP Products for Road Applications

- **NPG**
  - 20/30
  - 30/45
  - 50/70
  - 70/100
  - 160/220

- **PmB**
  - Olexobit 25
  - Olexobit 45
  - Olexobit 65
  - Olexobit SMA
  - Olexobit MP
  - Olexobit RC 25
  - Olexobit RC 45
  - Olexobit RC 65

- **NV-Product**
  - NV 25
  - NV 45
  - NV 65
  - Olexobit NV 25
  - Olexobit NV 45
  - Olexobit NV 65
  - Olexobit NV SMA
BP Global Fuels Technology (GFT)

**Products:** Fuels – Bitumen – Coke

**Activities:**

- GFT in Germany
  - Aral Forschung in Bochum
  - Global Bitumen Laboratory Gelsenkirchen-Scholven

- Other Centres
  - Pangbourne (UK),
  - Naperville, Huntington Beach (USA)
  - Johannesburg (South Africa)

- Supports four Brands (BP, Aral, Amoco, Arco)
  - All existing brands including ‘emerging markets’
  - JV’s in China und Russland

**R&M Technology**
Global Fuels Technology in Germany
Supporting the whole Value Chain

- Trading: Feedstock selection
- Refining: Bitumen manufacture, Quality, Specifications, Premium products
- Sales & Marketing: End Customer, Road Engineering
Fuels

From Crude ……

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Density, kg/l</th>
<th>Sulphur, %wt on crude</th>
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<tbody>
<tr>
<td>BCF17</td>
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<td>Arabian Heavy</td>
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<td>Gippsland</td>
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...... Specs, Quality & Specialities .....
...... to Customer

Porous Asphalt
Quiet
No Splash
No Spray

Thin Surfacing

R&M Technology