

A photograph of a modern building with a glass and wood facade. The building features a complex geometric glass structure with white metal framing. The ground floor has a white concrete base. In the foreground, there is a grassy area with a red fire hydrant on the left and a small tree in the center. The sky is blue with light clouds.

Implementation of F-Gas Regulation and national efforts beyond: experiences, lessons to learn and obstacles

Umwelt
Bundes
Amt 
Für Mensch und Umwelt

Katja Becken

German Federal Environment Agency (UBA)

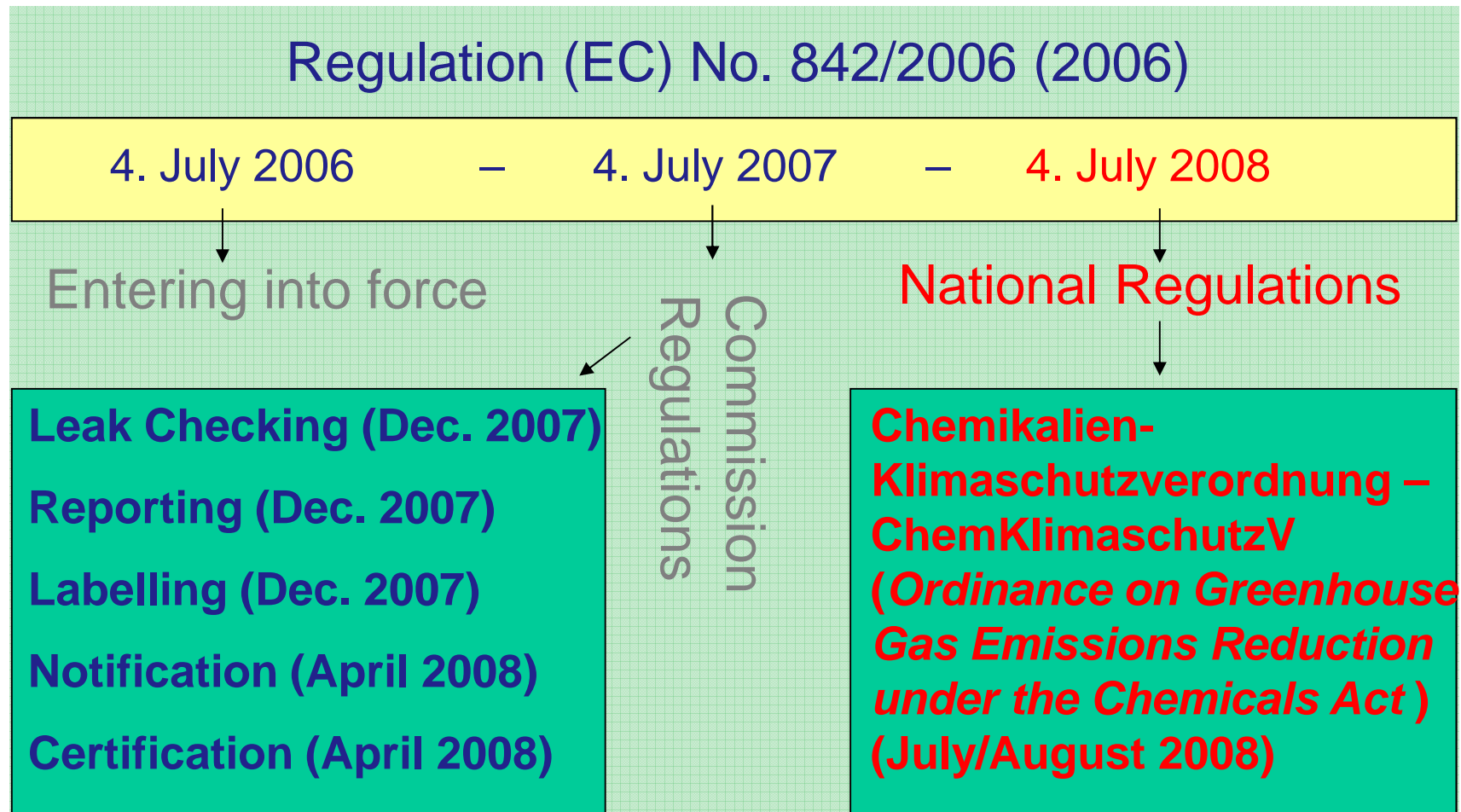
Introduction

- 1. German Ordinance on Greenhouse Gas Emissions Reduction under the Chemicals Act (Chemikalien-Klimaschutzverordnung)**
 - i. Additional provisions
 - ii. Experiences/Obstacles

- 2. Efforts beyond**
 - i. National / International Climate Initiative
 - ii. Further funding of projects
 - iii. UBA report

Chemikalien-Klimaschutzverordnung

- Implementation of Reg. (EC) No. 842/2006 -



Chemikalien-Klimaschutzverordnung

- Additional provisions -

German Ordinance on Greenhouse Gas Emissions Reduction under the Chemicals Act...

Specifies „*leakage*“ by establishing leakage thresholds for certain types of applications

Chemikalien-Klimaschutzverordnung

- Additional provisions -

systems installed
until 30 June 2005

- 10 kg or less: 8 %/y
- 10-100 kg: 6 %/y
- above 100 kg: 4 %/y

systems installed
after 30 June 2005

- 10 kg or less: 6 %/y
- 10-100 kg: 4 %/y
- above 100 kg: 2 %/y

systems installed
after 30 June 2008

- 10 kg or less: 3 %/y
- 10-100 kg: 2 %/y
- above 100 kg: 1 %/y

Transition period until 1 July 2011 for applications installed until 30 June 2008

Chemikalien-Klimaschutzverordnung

- Additional provisions -

German Ordinance on Greenhouse Gas Emissions Reduction under the Chemicals Act...

Specifies „leakage“ by establishing leakage thresholds for certain types of applications

Provisions for certain mobile refrigeration equipment (transportation of goods)

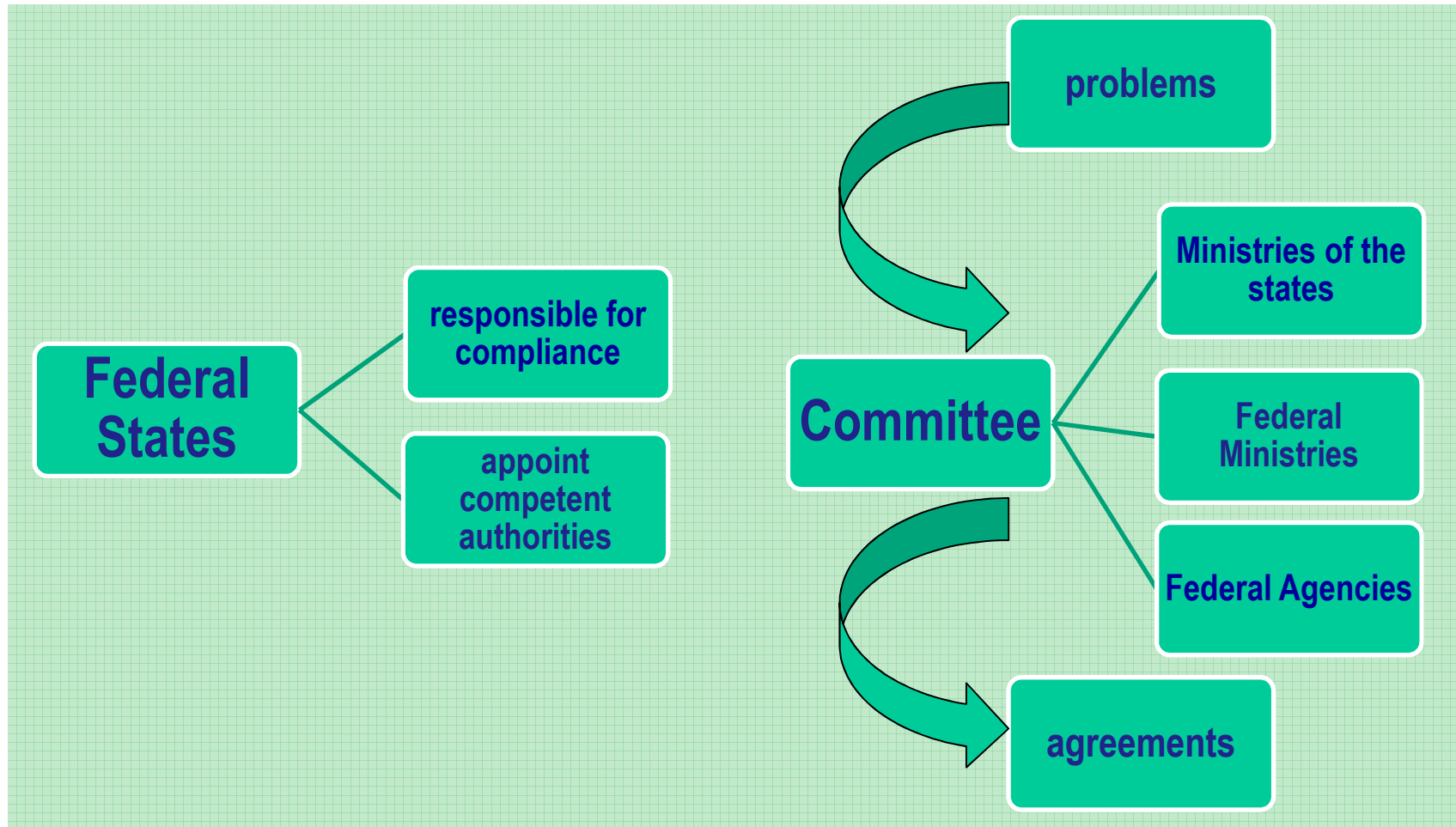
- Annual containment checks
- Obligation to repair any detected leakage
- Exemptions

Introduction

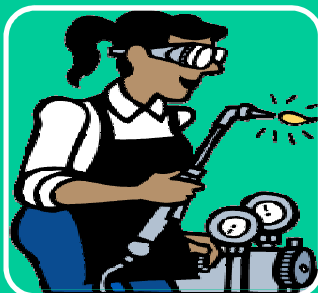
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Experiences/Obstacles



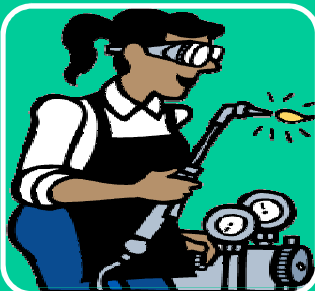
Experiences/Obstacles



Already high qualification of personnel was improved on the basis of minimum requirements.

Not possible to quantify effect on f-gas emissions.

Experiences/Obstacles



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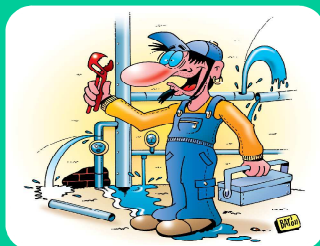
Fully certified personnel

- 23,800 (absolute)
- 85% share

Fully certified companies

- 4,025 (absolute)
- 67% (share)

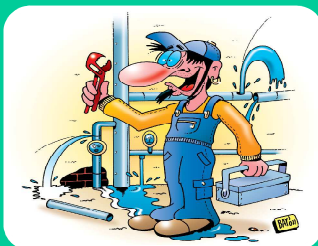
Experiences/Obstacles



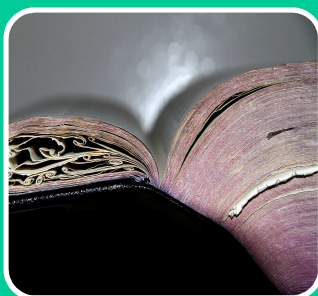
- Leakage checks are being carried out in accordance with the regulations!?
- Surveys are not yet available.
- German states begin to raise awareness among inspectors and operators.
- One federal state develops an installations register.

Image: © Stephan Bayer / pixelio.de

Experiences/Obstacles



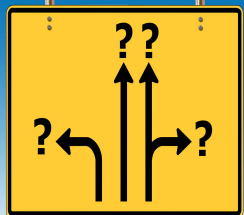
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- No special requirements for how records should be kept.
- Records are kept both on paper and electronically.
- Impossibility to broadly check and evaluate records on paper.
- During spot checks by the state authorities records are also regularly checked.

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Experiences/Obstacles



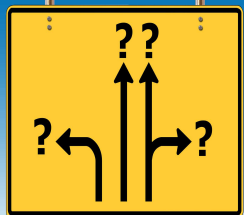
Raised awareness about f-gases. This refers especially to companies setting a high value on a green image.

Not possible to quantify effects on f-gas emissions or on the choice of refrigerant.

No real necessity for users, producers ... to take further action (e.g. substitution) as long as there is no ban, tax or any equivalent regulatory action.

Image: © Gerd Altmann / pixelio.de

Experiences/Obstacles



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There are no national assessments/reports about the impacts of art 3 (842/2006).

There are no national assessments/reports about the impacts of the maximum leak rates (maximum leak rates did not apply before July 2011 to many refrigeration systems).

Administrative burden is rather high.

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Efforts beyond



Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

Climate protection program 2008

GERMANY'S CLIMATE INITIATIVE

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THE CLIMATE INITIATIVE

The German government has set itself ambitious targets for climate protection. Firstly, to reduce its greenhouse gas emissions by 40 percent by 2020 compared with 1990. Secondly, to facilitate an international post-2012 climate agreement with the help of the International Climate Initiative. However, these targets can only be achieved if all stakeholders play their part. The revenues from emissions trading, and numerous projects and other initiatives, are paving the way. Let us work towards a climate-friendly future!

- **National Climate Initiative (NCI)**
- **International Climate Initiative (ICI)**

Efforts beyond

PROJECTS		
region	subject	
Brazil	Refrigerator Recycling Programme	11/2008 12/2010
China	Supporting the Introduction of Standards for Natural Refrigerants	08/2008 06/2010
Philippines	Credit Programme for Climate-Friendly Refrigeration Equipment	12/2008 12/2010
South Africa	Switching Supermarkets from Halogenated to Natural Refrigerants	10/2008 04/2011
South Africa	SolarChill: Solar-Powered Environmentally Sound Freezers and Refrigerators in Off-Grid Areas	10/2008 12/2010
Swaziland	Converting the Production of Commercial Refrigeration Equipment to Natural Refrigerants	10/2008 12/2009
Thailand	TRESERT: Combined electricity, heat and refrigeration from solar energy and biomass	11/2008 10/2011

Efforts beyond

- Promotional programme for climate protection measures in the field of commercial refrigeration
- Refrigeration Award



Efforts beyond

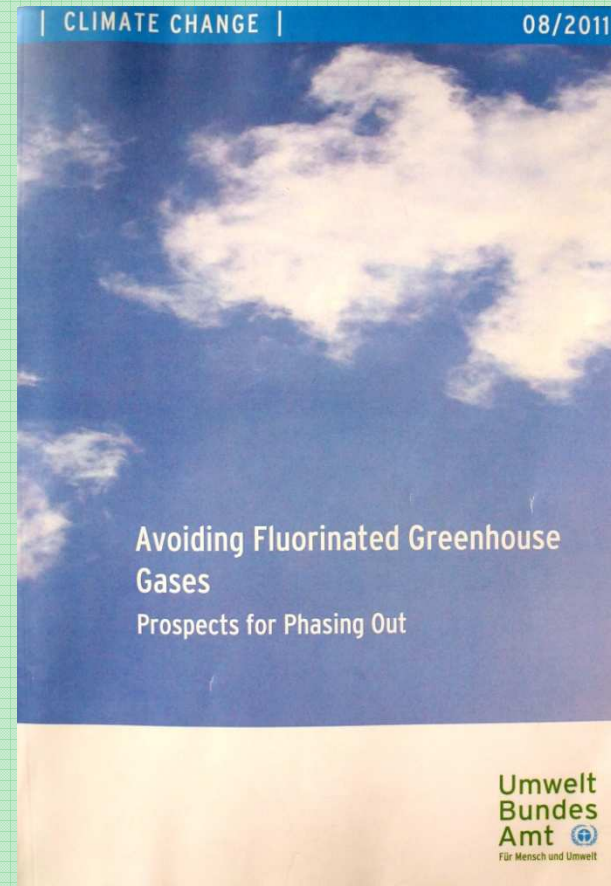
- **Promotional programme** for climate protection measures in the field of commercial refrigeration
- **Refrigeration Award**
- **The German Government funds (outside NCI & ICI)**
 - projects to identify halogen-free alternatives,
 - R&D projects related to the use of halogen-free substances,
 - comparative assessments of halogen-free alternatives,
 - pilot projects demonstrating the suitability of halogen-free substances,
 - standards concerning the use of halogen-free alternatives.
- **Many companies take action!**
- **Even a lot more will follow if appropriate regulatory action is taken!**

Efforts beyond

Best Solution RAC sector: Use of halogen-free alternatives/solutions

Halogen-free alternatives are many companies' and Governments' choice

To be reflected in the announced new measures regarding f-gases



Thank you !



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