National authorities are primarily responsible for the implementation and enforcement of the EU F-Gas Regulation, in particular with respect to oversight of and communication with operators, manufacturers, and contractors. As the HFC phase-down progresses, the ability of national authorities to anticipate the impact of the HFC phase-down and craft national measures to ease the transition to low-GWP technologies will be crucial in helping their companies and economies cope with HFC quota shortages and the HFC price premium.

I. Compliance and Enforcement

The HFC phase-down is administered by the European Commission, but compliance with and enforcement of the other provisions are largely the domain of national authorities.

National authorities provide crucial oversight to ensure that, for example:

* producers, importers and exporters properly label consignments or receptacles containing HFCs and blends, and provide evidence of HFC-23 by-product destruction and recovery upon placing them on the market;
* manufacturers properly label and advertise HFC-based products and equipment and desist from placing new equipment on the market where this is prohibited;
* operators perform regular leakage checks, install leakage detection systems where necessary, maintain records for each product and piece of equipment, and desist from the use of HFCs or blends during service and maintenance where this is prohibited; and
* contractors have valid certificates and maintain records for each product and piece of equipment.

In order to facilitate compliance and enforcement, EU Member States are required to lay down rules on penalties applicable to infringements and are obligated to take all measures necessary to ensure implementation. Penalties must be effective, proportionate and dissuasive, and notified to the European Commission by 2017.\(^{139}\)

II. Training and Certification

EU Member States are required to maintain certification programmes, including training and an evaluation process, for all persons carrying out the tasks outlined in Table 14.\(^{140}\)

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Installation, Servicing, Maintenance, Repair or Decommissioning</th>
<th>Leak Checks</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stationary Refrigeration Equipment</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Stationary Air-Conditioning Equipment</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Stationary Heat Pumps</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Stationary Fire Protection Equipment</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Refrigeration Units of Refrigerated Trucks and Trailers</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Electric Switchgear</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Stationary Equipment that Contains Solvents</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Certification programmes must meet minimum requirements and specify for each type of equipment the required practical skills and theoretical knowledge of the certified person. These minimum requirements are set out in previous Commission Regulations and remain in effect until superseded:

- Commission Regulation (EC) No 305/2008: High-Voltage Switchgear; and

For air-conditioning equipment in motor vehicles falling under the MAC Directive, EU Member States must only ensure that training has been completed. The minimum requirements for training are set out in Commission Regulation (EC) No 307/2008.

These certification programmes and training are required to cover the following elements:

- applicable regulations and technical standards;
- emission prevention;
- recovery of HFCs;
- safe handling of equipment of the type and size covered by the certificate; and
- information on relevant technologies to replace or reduce the use of HFCs and their safe handling.

Given the expected proliferation of natural-refrigerant technologies, EU Member States must provide information on natural refrigerants and ensure that the existing regulatory requirements for working with natural-refrigerant technologies are available upon request. If existing certification programmes and training do not cover these minimum requirements, they must be adapted.

EU Member States must notify the European Commission of their certification and training programmes by 1 January 2017.

III. Producer Responsibility Schemes

Without prejudice to the obligations already in place for the recovery of HFCs from products and equipment covered under Directive 2012/19/EU, also known as the Directive on Waste Electrical and Electronic Equipment or "WEEE Directive", national authorities must encourage the development of producer responsibility schemes for the recovery and recycling, reclamation and destruction of HFCs. Producer responsibility schemes are already operating in Denmark, Sweden and Germany, and those schemes could serve as models in other EU Member States.

The requirement to encourage the development of producer responsibility schemes is designed to address the lack of destruction and recycling facilities in many EU Member States and facilitate economies of scale from organised recovery operations at the national level.

IV. Collection of Emissions Data

EU Member States are required to establish reporting systems for sectors covered under the EU F-Gas Regulation with the objective of obtaining emissions data.