

Microalgae in Germany

Environmental Permitting

In some Länder, a state-level agency is responsible for the licensing, in some it is the local level environmental agencies of districts or towns (Umweltämter der Land und Stadtkreise). Generally, however, the environmental agency of the respective federal state (Landesumweltamt) is the competent licensing authority responsible for the emission control permit procedure under the BImSchG and associated ordinances. The Fertilisation Ordinance (DüV), the Ordinance on Fertiliser (DüMV) and the waste management law could play an important role for stakeholders that plan to use the substrate from the algae production as fertiliser once the algae are harvested and remaining nutrients are partly recycled. According to the law and the definition of the Federal Ministry for Environment (BMU) the concerned phosphate and nitrate-rich water cannot be used as fertiliser, but must be treated as waste water.

Main implementing legislation	Primary implementing agency	Permit types
Federal Emission Control Act (Bundes-Immissionsschutzgesetz; BImSchG)	Länder Environment Agency (Landesumweltamt)	Emission Control Permit or Licence

Key Points to consider:

1. What is the size of the facility?
2. What services exist already on the site?
3. Is the site located close to dwellings / environmentally sensitive areas / sites of special scientific interest?
4. Are any discharges produced by the site? Will significant amounts of waste be stored on site?
5. Are there any concerns about noise?
6. Are there any emissions from site?

First step:

- Contact relevant Länder

Planning

Land use planning in Germany reflects its federal system of governance with the federal, state (Länder), regional and municipality (Gemeinden) levels all playing an important role. A central federal steer on lower level development is provided through the Federal Spatial Planning Act, Guidelines for Regional Planning and the Federal Building Code (Ordinance). This federal legislation provides the broad framework for planning at the Länder level. States interpret these requirements through their own legislative measures meaning that approaches to planning permission vary from state to state.

The Federal Building Code Ordinance determines, among other criteria, which building measures are free of permission. The federal building ordinance determines for each State what exactly needs to have a building permission and what does not, and what an application for building permission has to look like and what needs to be included.

Main implementing legislation	Primary planning authority	Planning mechanism
Federal Zoning Law Building Regulations Law (Bauordnungsrecht)	Local building authority (Bauamt)	Building permit (Baugenehmigung)

Key Points to consider:

1. What size is the facility?
2. Is the site located close to dwellings / environmentally sensitive areas / sites of special scientific interest?
3. Are any discharges produced by the site?
4. What services exist already on the site?
5. Is the site likely to cause nuisance - e.g. noise above levels of agricultural machinery / odour / light above dense street lighting?

First step:

- Contact Local Building Authority

Regulatory Issues

Regulatory issues are very much dependent on end use of biomass. Please consult the relevant factsheet for further information.

Factsheet #15. Algae as Feedstock for Energy Generation - European fuel quality and other bioenergy legislation are explained

Factsheet #16. Algae as Feedstock for Chemicals - this covers REACH and other pertinent legislation

Factsheet #17. Algae as Feedstock for Food or Feed - FEMAS and other regulations for entering the food chain are described in more detail.

Key Points to consider:

1. What inputs have gone into the production process: are any classified as waste?
2. What is the target end use of the algal biomass?
3. What further processing steps are required?