

## G21D

### NUCLEAR POWER PLANT

#### Definition statement

*This place covers:*

Aspects of power plants which include, as a power generator, a nuclear fission reactor. Also power plants which convert the heat produced by the fission reaction into forms of energy other than electricity (e.g. mechanical energy).

#### References

##### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Electric or magnetic analogue computers, e.g. simulators, for nuclear physics	<a href="#">G06G 7/54</a>
Nuclear fusion reactors	<a href="#">G21B</a>
Aspects related to nuclear fission reactors per se	<a href="#">G21C</a>
Structural combination of fuel element	<a href="#">G21C 3/40</a>
Control of nuclear reaction	<a href="#">G21C 7/00</a>
Emergency protection arrangements structurally associated with a reactor; for rapid reduction of reactivity under fault conditions; for suppressing fires	<a href="#">G21C 9/00</a> , <a href="#">G21C 9/02</a> , <a href="#">G21C 9/04</a>
Pumping arrangements for the coolant by means within the reactor pressure vessel	<a href="#">G21C 15/24</a>
Obtaining electrical energy from radioactive sources	<a href="#">G21H 1/00</a>
Nuclear explosives and their applications	<a href="#">G21J</a>
Electrodynamic pumps	<a href="#">H02K 44/02</a>
Thermoelectric elements per se	<a href="#">H10N 10/00</a> , <a href="#">H10N 15/00</a>

#### Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Engine	plant, such as turbine
Engine demand	load

## G21D 1/00

### Details of nuclear power plant (control [G21D 3/00](#))

#### Definition statement

*This place covers:*

Details of the nuclear power plant, other than details of the nuclear reactor per se.

## References

### Limiting references

*This place does not cover:*

Control of nuclear power plant	<a href="#">G21D 3/00</a>
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### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Pumps for liquids per se	<a href="#">F04</a>
Dismantling spent nuclear fuel	<a href="#">G21C 19/34</a>

## G21D 1/006

{primary side of steam generators (secondary side of steam generators [F22B 1/00](#), [F22B 35/00](#) or [F22B 37/00](#))}

### Definition statement

*This place covers:*

Steam generator replacements.

## References

### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Secondary side of steam generators	<a href="#">F22B 1/00</a> , <a href="#">F22B 35/00</a> , <a href="#">F22B 37/00</a>
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## G21D 3/00

Control of nuclear power plant (control of nuclear reaction in general [G21C 7/00](#))

### Definition statement

*This place covers:*

Aspects of the control of nuclear power plants, other than the control of the nuclear fission reaction per se.

## References

### Limiting references

*This place does not cover:*

Control of nuclear reaction	<a href="#">G21C 7/00</a>
Emergency protection structurally associated with the reactor	<a href="#">G21C 9/00</a>
Emergency cooling arrangements (primary circuit)	<a href="#">G21C 15/18</a>

**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Electrical digital data processing	<a href="#">G06F</a>
Analog computers	<a href="#">G06G</a>

**G21D 3/001**

{Computer implemented control}

**Definition statement**

*This place covers:*

Computer implemented systems and methods related to nuclear reactor applications, such as design, licensing procedures, fuel shuffling, core loading patterns, data processing, etc.

**G21D 5/00**

**Arrangements of reactor and engine in which reactor-produced heat is converted into mechanical energy**

**Definition statement**

*This place covers:*

Nuclear propulsion, e.g. for applications in ships, submarines and space crafts.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Arrangements or adaptations of propulsion systems of cosmonautic vehicles	<a href="#">B64G 1/408</a>
Plants characterised by the use of steam or heat accumulators using nuclear heat;	<a href="#">F01K 3/181</a>
Gas-turbine plants characterised by the use of hot gases or unheated pressurised gases using nuclear energy	<a href="#">F02C 1/05</a>

**G21D 7/00**

**Arrangements for direct production of electric energy from fusion or fission reactions (obtaining electric energy from radioactive sources [G21H 1/00](#))**

**References****Limiting references**

*This place does not cover:*

Obtaining energy from radioactive sources	<a href="#">G21H 1/00</a>
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## G21D 9/00

Arrangements to provide heat for purposes other than conversion into power, e.g. for heating buildings

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

Methods and apparatus for obtaining oil, gas, water, soluble or meltable materials or a slurry of minerals from wells by means of nuclear energy	<a href="#">E21B 43/2403</a>
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