

# METALLIC WASTE TREATMENT, MELTING AND RECYCLING

## Cyclife Assets

Cyclife operates three facilities dedicated to the treatment of low-level radioactive contaminated metals generated by nuclear industry.

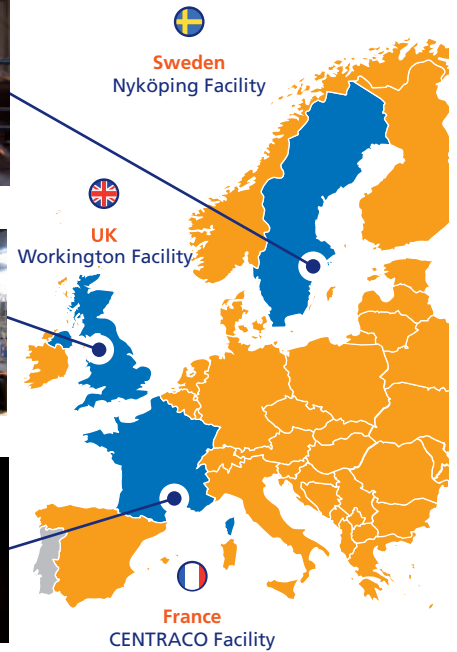
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Cyclife studies each specific request to find the best sustainable waste route, in line with the waste hierarchy:

- Decontamination
- Volume reduction of a factor of 10 to 15
- Recycling

**Cyclife solution will improve your savings by minimizing interim on-site storage and space capacity in the final repository**



## Process

1. Collection and receipt of materials and waste packages
2. Sorting and preparation of the material
3. Size-reduction of large components
4. Direct clearing and recycling by melting
5. Preparation of the final waste packages and transportation to disposal solutions

## Acceptance

### Maximum activity / dose rate

- Total emitters  $\beta\gamma < 20,000$  Bq/g
- Total emitters  $\alpha < 370$  Bq/g

The combined capacities of the facilities is 8,500 tons of contaminated metals yearly.

## Specificities

### Decontamination

High efficiency decontamination. Mechanical decontamination with decontamination factor up to 100

### Size

- Large components: up to 30 meters length and 400 tons

### Metallurgical Nature

- Ferrous and non-ferrous material: aluminum, copper lead and special alloys
- Decontamination and clearance (not melting): titanium

### Recycling

- Valorization within conventional or nuclear industry, in compliance with the European Commission's recommendations, RP 89, Table 3-1
- Contaminated metals with up to 100 Bq/g initial activity can be subject to clearance after treatment

### Packaging and transportation

- Multi-modal transportation solutions available
- Large components can be received
  - > by sea or by road
  - > Sealed (unwrapped), wrapped or in special over-packed, depending on the level of contamination
- Residues can be packed in drums or boxes as per customer request; returned loaded in ISO containers as standard

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