

NSPA END-OF-LIFE MANAGEMENT OF MILITARY ASSETS

When military systems reach the end of their life cycle, countries face the challenge of demilitarization and disposal in accordance with regulatory requirements relating to health & safety, security, environment, international obligations and treaties.

The Demilitarization, Dismantling and Disposal (D3) Support Partnership (SP) is NSPA's entry point for the tailored initiation, development and execution of liquidation activities, offering access to the Agency's extensive experience and expertise obtained over more than 50 years in support of NATO and Partner Nations.

The D3 SP provides consolidated disposal services for equipment from different domains (air, land, and sea), as well as for treatment and disposal of waste, hazardous chemicals and other dangerous substances.

Key NSPA D3 Services for Surplus Military Assets

Access to rapidly usable D3 contractual capabilities

- From D3 strategy development, via execution, to certification.
- Hazardous materials assessments, inventories, baseline surveys, waste categorization, inspections, remediation, removal and final disposal.
- Disposal options cover resale, reuse, conversion, disassembly, parts salvaging, dismantling, recycling, and waste management.
- Supplementary services such as packaging/repackaging, loading/unloading, containerization, transportation, storage.
- Optional onsite D3 execution.
- In-house destruction of sensitive CIS, Crypto, and GPS equipment.



Key NSPA's D3 Benefits



Key features

- Dedicated project office with solid expertise.
- Complete solutions tailored to customer needs and all equipment categories and conditions.
- Robust legal & business experience, own procurement and finance capabilities.
- Access to globally qualified industry players, resale markets, and multiples sales channels.
- Objective of minimum costs and maximum returns for our customers through effective recycling and materials recovery.
- Full compliance and commitment to environmental, health & safety, security, and all applicable legal requirements.

Revenue-driven approach

Up to 70% of an aircraft, vehicle or vessel weight can be turned into net revenue. NSPA applies a commercial mindset to the liquidation of military systems and has a proven track record of successfully managing big liquidation tasks, delivering a maximum return for the customers, i.e.:

- **6,150 EUR** of net revenue per Main Battle Tank.
- **4,700 EUR** of net revenue per Armoured Personnel Carrier.

CASE STUDY: LEOPARD MAIN BATTLE TANKS

The Challenge

After deciding to phase out a fleet of 483 Leopard 1 Main Battle Tanks with a 105 mm cannon, our customer selected the NSPA D3 service to build and implement a tailored solution for managing the disposal of the vehicles through onsite dismantling.

The goal was to maximize revenues from scrap resale while ensuring full compliance with stringent environmental, health & safety, and security requirements, in accordance with the Conventional Armed Forces in Europe (CFE) treaty demilitarization prescriptions.



The Solution



By partnering with a leading industry provider, NSPA was capable of offering a full range of services, including logistics, dismantling, depollution and asbestos removal, recovery of recyclable materials, and waste management, in compliance with applicable regulations.

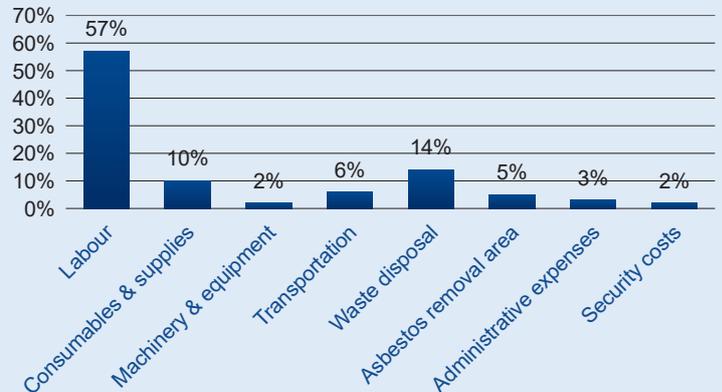
An inventory of all dangerous materials, including asbestos, was performed before dismantling in order to prevent environmental and health & safety risks, protect the customer from liabilities, ensure optimal material recovery, and reduce decommissioning costs.

The vehicles were demilitarized by permanent deformation, as prescribed by the CFE treaty, to avoid reuse of any part or component for its original intended purpose.

NSPA supervised the work that took place at the customer premises:

- Onsite performance, with the mobilisation and demobilisation of a temporary dismantling facility, including a decontamination room for treatment of asbestos-containing materials.
- Vehicles inspection and preparation for transportation to the temporary dismantling facility.
- Removal and disposal of asbestos and other dangerous materials.
- CFE demilitarization and dismantling to the level of scrap.
- Waste management, and valorisation of recyclable materials (scrap metal), with all associated Certificate of Disposal.

Cost Drivers



Achievements

NSPA successfully completed the disposal process and set environmental performance requirements that significantly reduced landfill waste, increased material recovery, also reducing disposal costs and producing a net return over 30% above expectations.

More than 24 tons of iron/steel and non-ferrous metals were recovered using the best recycling practices, and sold on the global scrap metal market, generating a significant income for the customer - over 6,000 EUR per tank:

- **Over 24 tons of iron/steel and non-ferrous metals.**
- **Over 6,000 EUR per tank.**
- **Revenue over 30% above expectations.**

NSPA requested a detailed and transparent record of the recovered materials, their quantities and sales prices, in order to set an unparalleled benchmark that will enable the development of dependable proposals for customers' future projects in an area where statistics are scarce, and prices fluctuate significantly.

CASE STUDY: PATROL BOATS AND FLOATING DOCK

The Challenge

Our customer faced the complex challenge of disposing of an obsolete floating dock of around 1,000 tons, and two Hawk-class patrol boats equipped with various types of armament and other regulated items.

The initial plan was to dispose of this obsolete equipment at a specialized facility, but a preliminary assessment revealed a significant risk of sinking. NSPA rapidly adapted to a scenario of demilitarization and dismantling onsite, ensuring a sustainable and environmental-friendly decommissioning, while maximizing the value of the recovered materials.



The Solution



NSPA oversaw the entire disposal process at the mooring facilities of the customer and closely coordinated all demilitarization and dismantling activities to ensure maximum value for our customer and compliance with all security, health and safety, and environmental regulations.

In the case of the patrol boats, all armament was destroyed by cutting, burning, breaking, and crushing, as appropriate, to preclude restoration for further use, or identification and association of related parts.

The D3 activities covered the following services:

- Onsite performance, with the mobilisation and demobilisation of a temporary dismantling and waste storage facility.
- Inventory of Hazardous Materials (IHM) and types of wastes on board.
- Decontamination, including removal of asbestos, fuels, oils and all dangerous substances.
- Securing of the vessels to ensure all operations were undertaken in a safe manner.
- Demilitarization and dismantling to the level of scrap.
- Waste management and disposal, including valorisation of recyclable materials (scrap metal), with associated Certificate of Disposal.



Achievements

NSPA was able to successfully complete all activities in full compliance with applicable legislation, ensuring the client was protected from all risks and liabilities of the complex activities of ship recycling.

NSPA contract negotiation strategy ensured the revenue from ferrous and non-ferrous metals covered all the additional disposal costs, and still generated significant income to the client.

NSPA D3 service was once again a valuable partner, enabling Nations to respond to the challenge of a sustainable, environmentally conscious and cost-effective disposal of defence surplus.

CASE STUDY: ARMORED VEHICLES

The Challenge

Defence entities own a variety of combat vehicles that require appropriate disposal according to complex regulatory frameworks. Otherwise, they may cause significant environmental and human health concerns.

Our client owned almost 700 armoured wheeled vehicles including M577, M106, and M113, equipped with different types of armament that needed to be carefully destroyed in order to avoid unauthorised or unlawful use, and disposed of in compliance with all applicable laws, guaranteeing environmental and health protection, safety, and cost optimisation.



The Solution



Our customer selected NSPA to conduct the demilitarization, dismantling and disposal of the vehicles by permanent deformation in accordance with the prescriptions of the Conventional Armed Forces in Europe (CFE) treaty, to avoid reuse of any part or component for its original intended purpose.

The vehicles were subject to a previous inventory of dangerous materials, including asbestos, to mitigate any environmental, health, and safety risks, protect the client from liabilities, ensure optimal material recovery, and reduce decommissioning costs.

NSPA joined efforts with a company in the field of demolition, material recovery and waste treatment and provided services for:

- Onsite performance, with mobilisation of a temporary dismantling facility that included a shelter, decontamination room for treatment of asbestos-containing materials, soil reinforcement, and construction of drainage systems to avoid soil contamination through the collection of contaminated waters.
- Vehicles inspection and preparation for transportation to the dismantling facility.
- Complete decontamination of the vehicles, including asbestos, to ensure the safety of dismantling operations.
- CFE demilitarization and dismantling to the level of scrap.
- Waste management, including valorisation of recyclable materials (scrap metal), with all Certificate of Disposal.



Achievements

All vehicles were demilitarized and dismantled ahead of schedule and around 8,500 tons of iron, steel, and aluminium were given a second life on the global market and transformed into a significant income stream for our customer, at competitive prices.

This big task generated a significant income source for our customer - more than 4,700 EUR per vehicle. This is an excellent example of how a perceived liability can be turned into an asset, whilst successfully contributing to the circular economy and transforming the Nations surplus into quality raw materials to be reused in manufacturing new products.

- **More than 3,600 tons of iron/steel and non-ferrous metals.**
- **Over than 4,700 EUR per vehicle.**
- **Delivery ahead of schedule.**

For any enquiry, please contact Demilitarization, Dismantling and Disposal Support Partnership (D3SP):

d3.services@nspa.nato.int



www.nspa.nato.int ■ 11 rue de la Gare, L-8325 Capellen, G.-D. Luxembourg ■ cco@nspa.nato.int ■ +352 3063-1 ■

