

End-of-Life Vehicles (ELV) and Waste Electrical and Electronic Equipment (WEEE): Combating illegal treatment facilities, a challenge aimed at reducing accidental risks!

While the fight against illegal sites in the waste sector constitutes both an environmental challenge (non-compliance with discharge standards and accepted depollution methods) and an economic one (unfair competition, an obstacle to achieving European recycling objectives), it is also a major challenge as regards accidental risks. These risks often go unmitigated among operators at sites in violation, which offers another crucial reason prompting the identification and regularisation of such sites. Below is a close-up of the cases of two treatment streams in the waste sector: end-of-life vehicles (ELV), and waste electrical and electronic equipment (WEEE).

Ineffective operating procedures, insufficient employee training and inappropriately dimensioned fire-fighting resources are some of the deficiencies commonly encountered at illegal sites treating ELV and WEEE that raise the probability of accidents. The following examples are most instructive.



Source : French fire service

22nd March 2012 - STRASBOURG (ARIA 42143)

In a company's specialised in metal recovery, a spark triggered by the shock of a grappling hook against iron scrap initiated a fire outbreak on some twenty ELV bodies not yet depolluted. Site employees used extinguishers while waiting for outside responders. Inspectors of classified facilities observed several discrepancies relative to mandated operating instructions: **the site was not certified to treat ELV; the operator was unaware of the quantity of wastes present on-site; and access was blocked in spots.**

6th February 2006 - BREST (ARIA 31382)

Fire broke out on a 400-m³ heap of scrap automobiles awaiting crushing within a metal recycling firm. According to the site operator, the presence in the heap of a vehicle yet to be depolluted caused this accident. The facility had not been certified to treat ELV. Inspectors of classified facilities reminded the operator of his **certification-related obligations** and requested **the implementation of corrective actions to ensure all vehicles undergo depollution prior to being crushed.**

25th May 2007 - SAINT-JEAN-D'ARDIERES (ARIA 33037)

A fire of unknown origin broke out on a 1,000-m² stockpile of ELV stacked 3 m high at a company recovering recyclable metal material. First responders experienced water supply difficulties, as one of the two fire hydrants was not operational. Most of the extinction water flowed into the L'ARDIERES River via the site's storm drain network and hydrocarbon separator. The investigation revealed that the **facility operator had not been granted the certification to dispose of ELV and moreover that several technical instructions listed in the authorisation order had not been respected**, including: lack of a retention basin for extinction water, inadequate emergency response resources in-house, and non-compliant storage conditions.

24th April 2013 - ANGOS (ARIA 43723)

In a metal waste collection company, while an employee was using a blowtorch to remove a metal strip blocking the pushbutton on a press, a spark ignited a pile of WEEE. The flames quickly spread to some scrapped cars. The blaze covered 400 m² and released a large plume of black smoke. **The use of a blowtorch in a confined space had been decided as an urgent measure and no hot work permit had been issued.** In violation of regulations, the facility was engaged in cash-based retail transactions of WEEE.

The share of illegal waste streams in France

- In 2012, 43% of the estimated stockpile of ELV was routed through illegal channels (source: National Council of Automobile Professions, 2014).
- In 2012, only 35% of all WEEE generated were appropriately collected and recycled (source: United Nations / Interpol, 2015).
- Illegal sites may be involved with trafficking activities (export of hazardous ELV; resale of WEEE awaiting dismantling and their spare parts; clandestine employment, etc.).

Site operators' obligations

- Depending on the activities performed and the facility size: declaration, recording or authorisation under the appropriate "ICPE" installation category (headings 2710, 2711, 2712, 2790, 2791).
- ELV centres are required to be certified by Prefectural decree in order to exercise their trade.
- The WEEE treatment sites must maintain a log and establish contractual relations with a certified eco-organisation.



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ELV and WEEE share the distinction of being wastes with potentially high value. In arousing keen interest, the installations recovering such wastes are often the target of theft, which in some instances involves arson to cover the thief's tracks. Fires of this type can result in serious consequences.

18th September 2010 - ILLZACH (ARIA 38989)

While stealing automobile parts, 2 thieves set fire to an automobile scrapyards. Flames spread within a stockpile of 800 vehicles stacked over 1,000 m². A huge plume of black smoke rose. Traffic was suspended on the adjacent railway line and neighbours were evacuated. 70 fire-fighters responded to extinguish the blaze. The site's confinement basin proved to have insufficient capacity, and a portion of the extinction water flowed by gravity into the RHÔNE-RHINE Canal.

By failing to systematically implement basic security and monitoring practices, the sites in violation are especially prone to these kinds of malicious attacks.

20th July 2014 - MARSEILLE (ARIA 45512)

Fire broke out at an ELV treatment centre specialised in the recovery and sale of spare parts. Fire-fighters responded to battle the blaze that had spread throughout the building, encompassing a floor area of 1,000 m². Responders had to cope with water supply shortfalls. The ELV facility building was entirely destroyed, as were 6 vehicles awaiting treatment. A neighbouring woodworking company and reception room sustained damage. In 2008, inspectors of classified facilities had recorded **breaches by the site operator jeopardising the safety of adjacent uses with respect to fire risks** (storage height of vehicle scrap piles, fence height, effective fire hose cabinet operations, etc.). **A break-in at the site had caused this loss.**

24th April 2009 - BERNES-SUR-OISE (ARIA 36116)

Fire broke out on a 500-m³ stockpile of metal and plastic waste in a metal recycling firm undergoing administrative review. The blaze released a considerable amount of smoke visible several kilometres around. Traffic on the nearby rail line and its electricity supply were suspended. Fire-fighters brought the situation under control after a 6-hour battle. Extinction water infiltrated into the permeable soil; no flow into the OISE River was reported.

The classified facilities inspectors' investigation revealed the **on-site presence of WEEE along with some ELV, two waste types that had not been included in the ongoing authorisation application.** According to the site operator, a **malicious act (Molotov cocktail thrown) was responsible for this loss.**

A selection of accidental risk prevention measures to apply in ELV and WEEE treatment facilities

- Strengthen anti-intrusion measures (consolidating gates and fences, more robust means of monitoring); avoid tempting potential criminals by storing metal waste in easily accessible places: outdoors, adjacent to fences (ARIA 38792, 43471).
- Control incoming waste in addition to verifying the efficiency of sorting and depollution operations prior to extended storage or crushing (risk of accidents tied to the residual presence of a tank, battery or condenser in ELV or WEEE: ARIA 17333, 22772, 24653, 31382, 36274, 44861, 46331).
- Be extra vigilant when performing hot spot works (e.g. torch cutting) or any task capable of creating sparks; fit out workshops in a way that avoids accidental ignition (ARIA 32122, 33292, 34876, 40736, 42245, 43737, 43723, 46270).
- Train personnel in the proper application of safety procedures and guidelines (ARIA 36274, 43737, 44861).
- Ensure a secure layout of ELV and WEEE stockpiles: compliance at all times with the maximum authorised quantities, storage heights, stock category segmentation, distances with respect to property boundaries in order to facilitate emergency response, insulation relative to ignition sources, maximum reduction in the amount of time vehicles can be stored before undergoing depollution (ARIA 31960, 38577, 42825, 44861, 45504, 46331, 44253).
- Exercise appropriate supervision over the storage of recovered fluids during depollution steps in order to avoid environmental impacts (e.g. ARIA 42617: overflow of hydrocarbon tanks).
- Comply with construction code provisions for structural fire resistance, smoke removal; comply with provisions relative to the verification of electrical installations; deploy fire-fighting resources of the right size in the right positions (ARIA 22772, 33037, 34876, 36739).

For any comment/suggestion or to report an accident or incident: barpi@developpement-durable.gouv.fr

The summaries of all accidents recorded in the ARIA base may be consulted at: www.aria.developpement-durable.gouv.fr