Encountering the kiln: visual field notes from an incinerator

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Encountering the kiln

On a crisp autumn morning, a hazardous waste incineration facility in the industrial heart of southern Poland is in the process of burning medical waste at over 1100 degrees celsius.

From the safety of a distant control room, the rotary kiln operators watch the discards of medicine in red polyethylene bags undertake a violent transformation on their monitors. Shakira's 'Hips Don't Lie' is playing on the control room radio. As the waste makes its way through the kiln, I am being taken on a tour of the facility. This is just another in day in the life of the kiln, although the range of materials that tumble through the pipes and chutes are far from ordinary: ammunition, coal tar, body parts, cosmetics, laboratory chemicals, oil spills, medicines, waste water sludge, and pesticides have all faced the furnace. From some perspectives, incineration is considered to be the most efficient and effective method of waste disposal – it is also the most expensive.

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Thousands of tonnes of pesticides – predominantly banned persistent organic pollutants (POPs) – have been incinerated at this facility over the past several years. My doctoral research follows the after-lives of pesticides and their toxic geographies. Pesticides, and the materials they contaminate (including soils, containers, and protective equipment) emerge at the end of the incineration process as gasses, slag, and ash. The wastes of waste disposal are often sent to other facilities to be re-treated and re-mixed with stabilising materials, for what is imagined by some as their final resting place: landfill.

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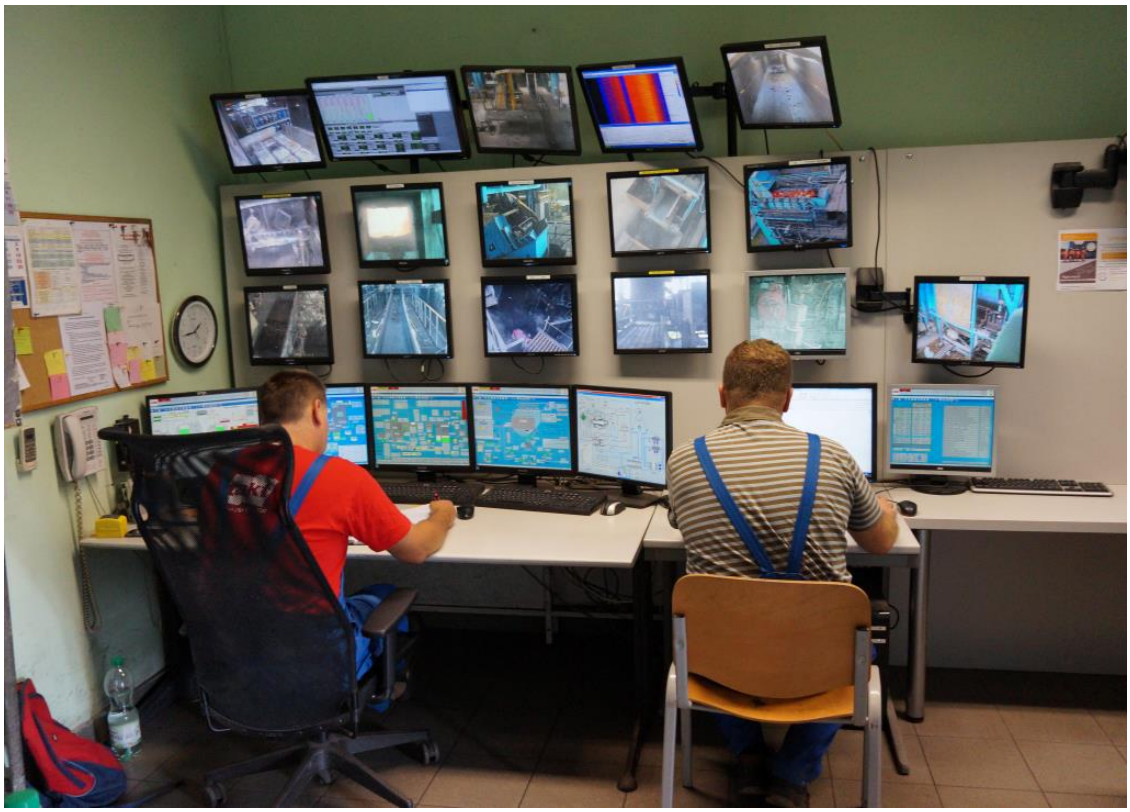
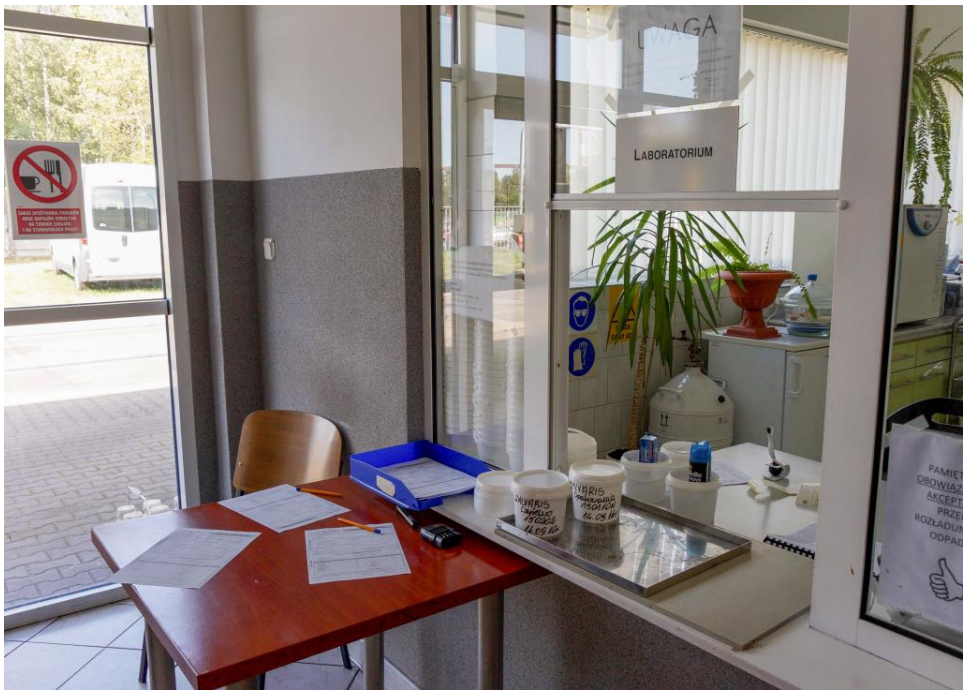
The effects of this process on those entangled with it are uncertain, and communities living near this facility have protested the incineration of highly hazardous chemicals so close to their homes. The Vice President of the facility stressed in our interviews that emissions are within permissible limits and that the incinerator adheres to all relevant EU regulations.

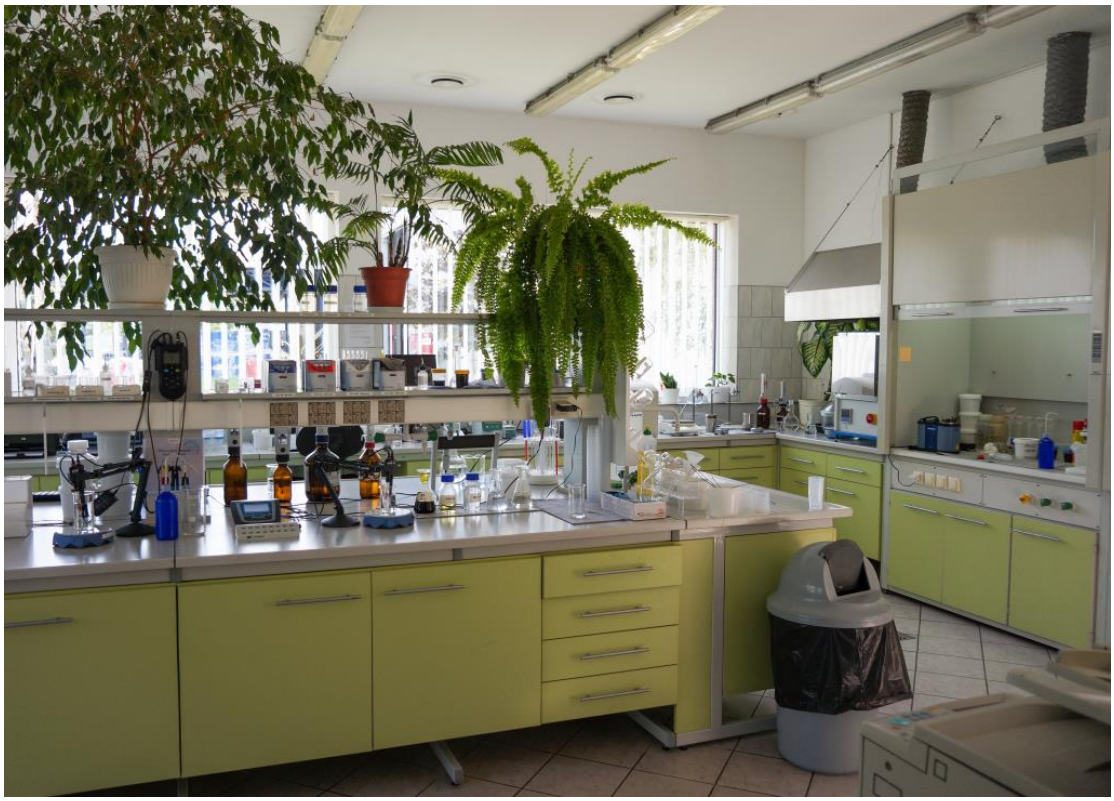
This piece is a photo essay of my first encounter with the incinerator. It is a glimpse of the processes and practices that constitute hazardous waste disposal. I was in the midst of fieldwork at the time this visual essay was assembled, therefore this piece is best viewed as visual field notes; partial observations, connections, and critical moments. Photographs were taken to note the materialities of the incineration process, for example: the unruliness of ash, the instruments used to test waste, and the continuous battles with rust and decay. The camera, of course, also shapes the encounter, with the tour guide directing my experience of the facility toward photographable objects and practices – but as scholarship attentive to waste materialities has illustrated time and again, matter has a habit of misbehaving[1].



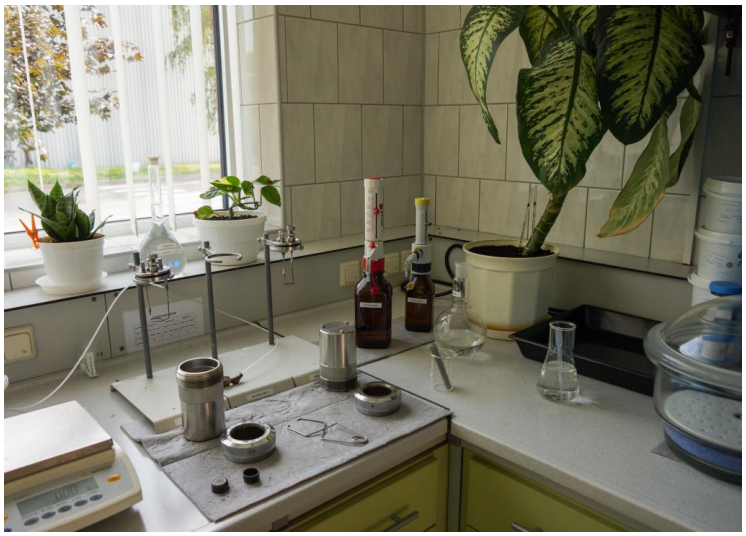
Control Room: Engineers monitor the kiln's activity through live video feeds and the facility's automation software.



Delivery: Cargo truck drivers deliver waste samples to the laboratory window, along with a form that classifies their waste in adherence to the European Union's Waste Framework Directive.

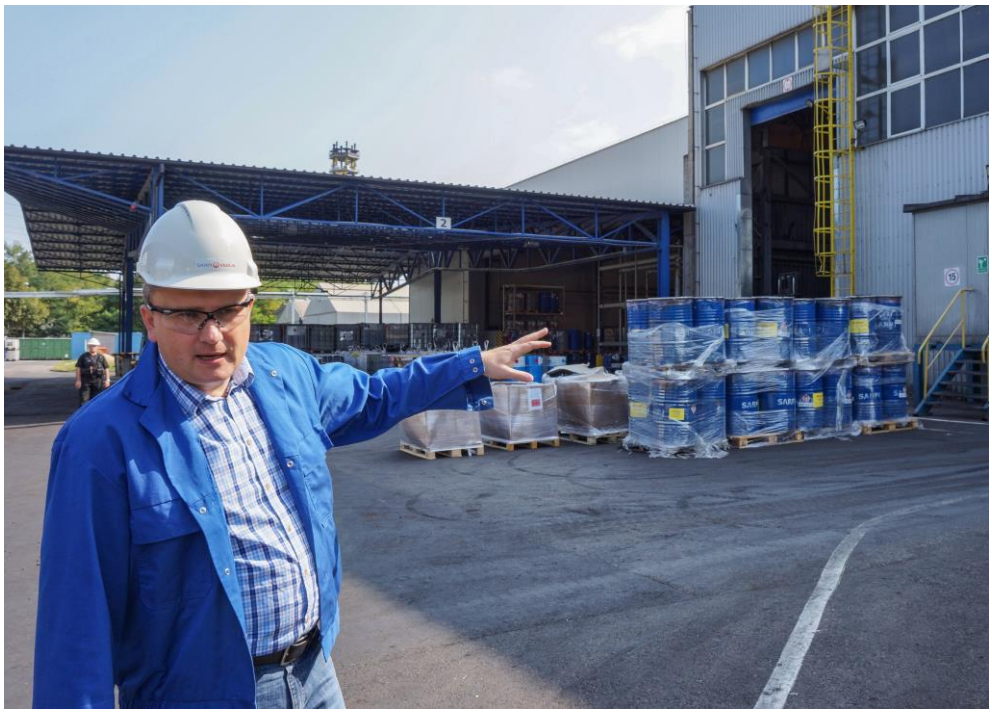


The lab: The facility's laboratory, with a direct view of the kiln, tests waste samples for safety and for determining the exact process (and cost) of incineration.

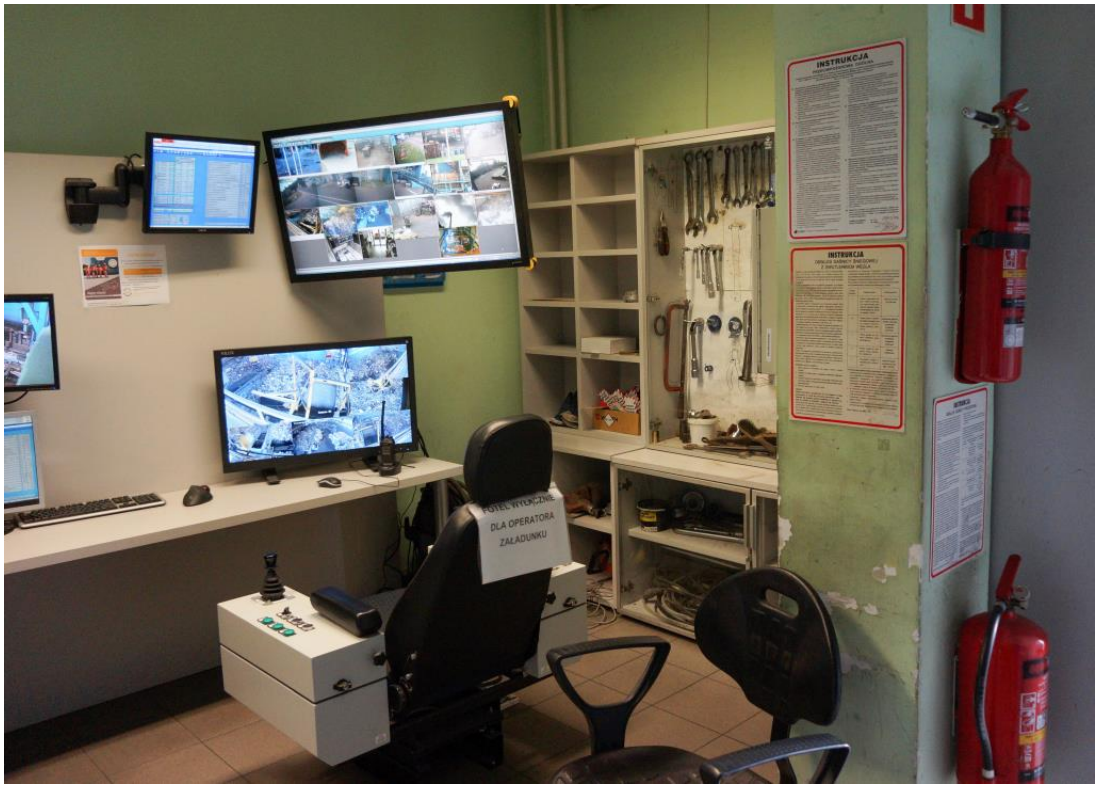


Mini-kiln: 'The bomb' is a miniature version of the kiln. The instrument creates a solution to analyse the chemical composition of each waste sample.

Archiving: The lab manager demonstrates how the waste sampler works. Samples from each delivery are stored for one month. The commercial samples (in white containers) are kept in storage for one year.

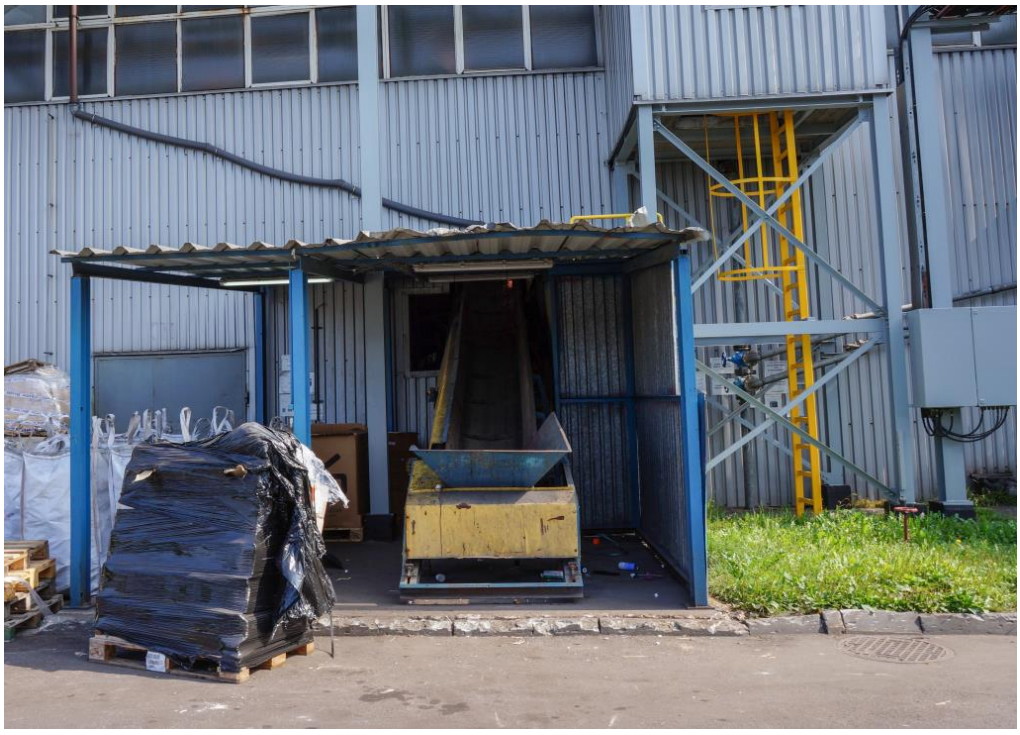


Solid hall: The lab manager explains how wastes are organised according to the hazard level and their material state. He points to the shed where not-so-hazardous hard waste is shredded and then mixed.



Operator's chair: The workers occupying this seat operate the crane that feeds the kiln with solid waste. The operator shares their space with the kiln operators, and primarily relies on the live video feed to move the waste.

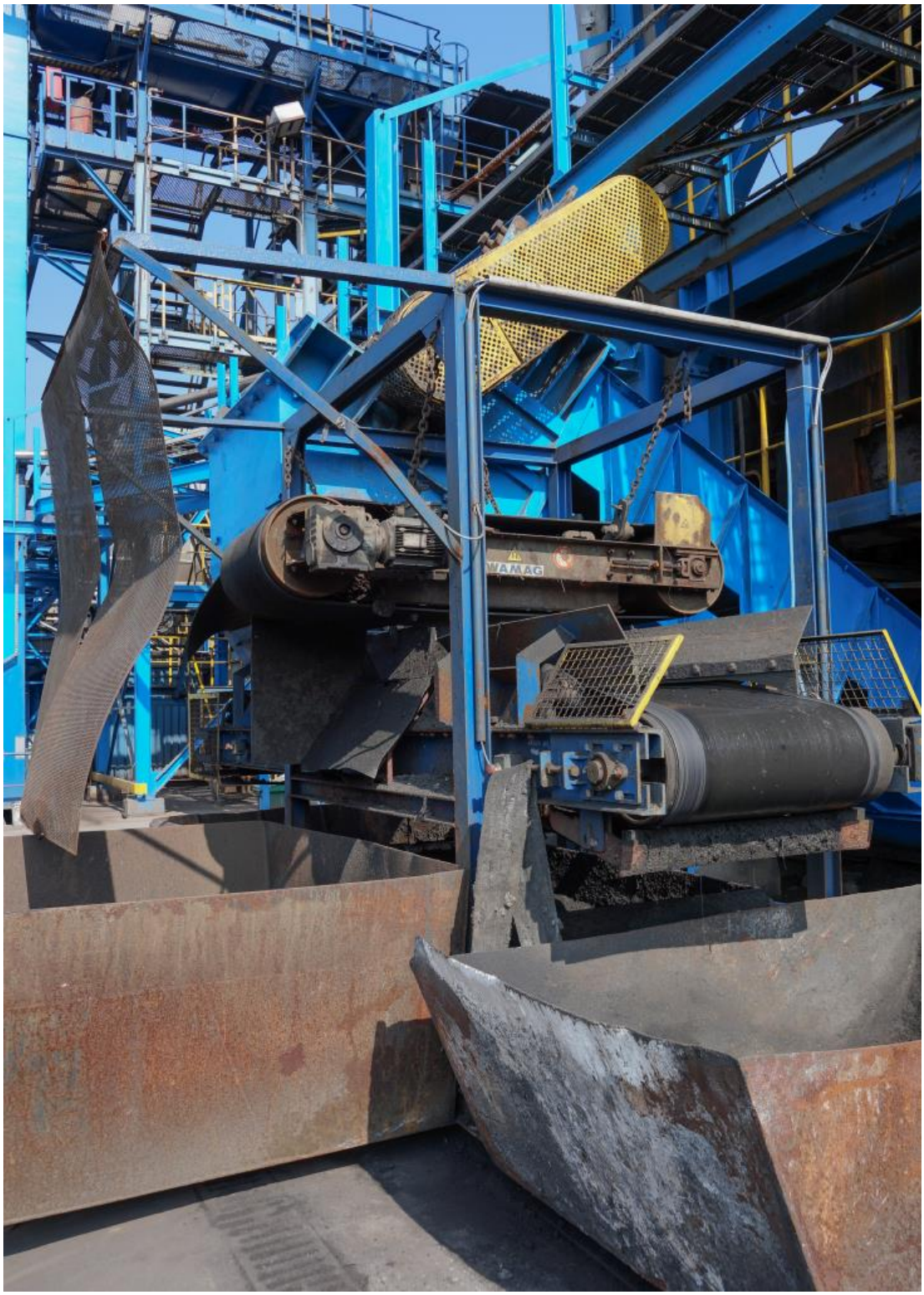
Awaiting results: The waste in this holding bay is currently being tested in the lab. Containers have been marked with a 2, indicating that the materials have a low calorific value (i.e. a relatively low amount of heat will be released during combustion).



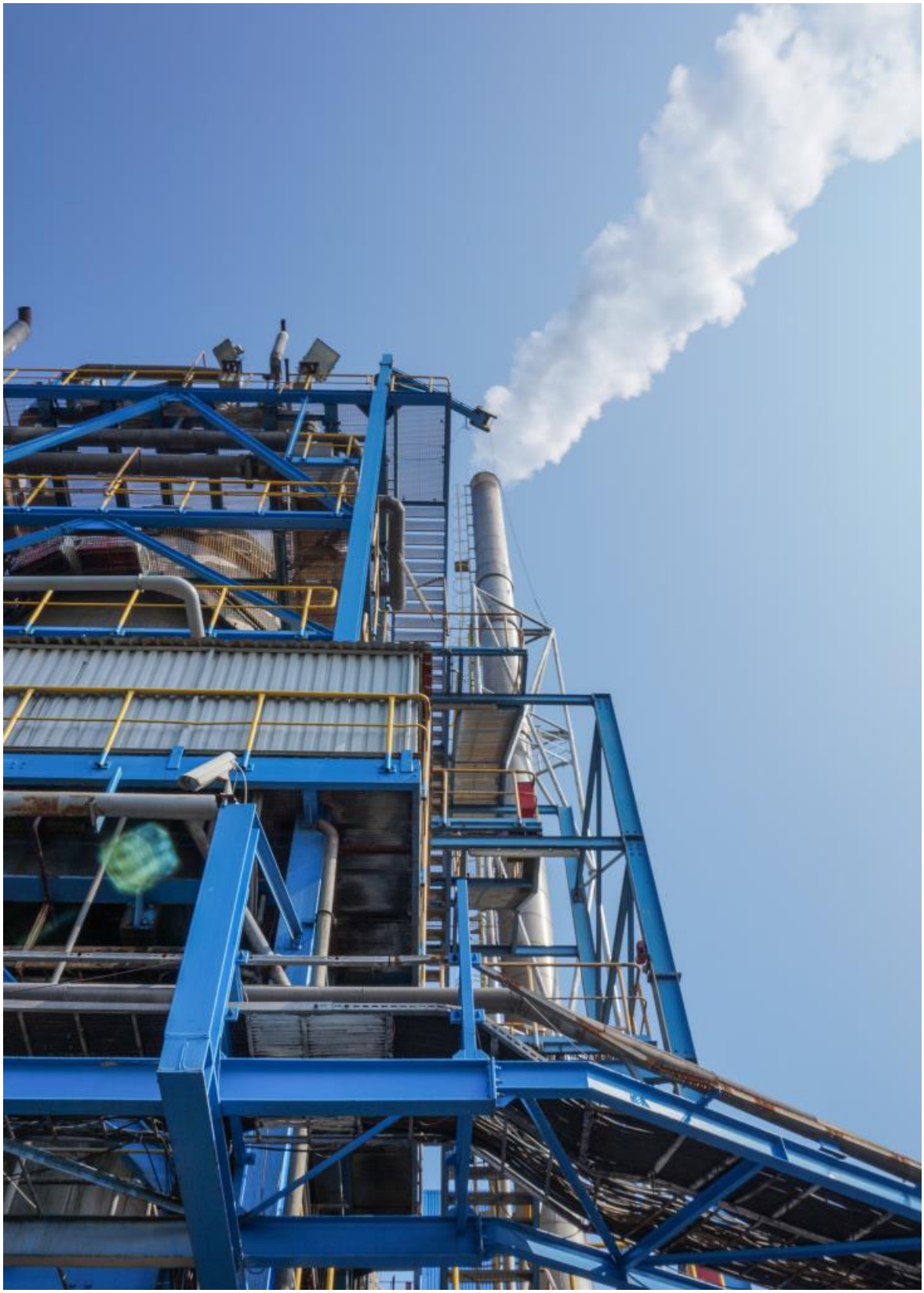
Direct entry: Aerosol cans are particularly hazardous to incinerate. Consequently, the facility has a dedicated conveyor for the direct entry of aerosols into the kiln.

At work: A technician passes under the facility's electro-filter, which is designed to capture dioxins, furans, chlorines, and sulphur compounds, produced by the combustion process.

Maintenance: The Vice President of the facility (left) explains that the scaffolding on her left supports the ongoing maintenance - the facility is forever in a process of repair.



Wastes of waste disposal: Ash and slag from incinerated noncombustible wastes are directed to open containers, and then moved to a second facility for further treatment.



Emissions: Steam slowly emerges through the stack, along with less-visible gasses produced by the incineration process.

The End.

[1] For example, see:

Gille, Z 2010, 'Actor networks, modes of production, and waste regimes: reassembling the macro-social', *Environment and Planning A*, vol. 42, no. 5, pp. 1049-64.

Gregson, N, Watkins, H & Calestani, M 2010, 'Inextinguishable fibres: demolition and the vital materialisms of asbestos', *Environment and Planning A*, vol. 42, no. 5, pp. 1065-83.