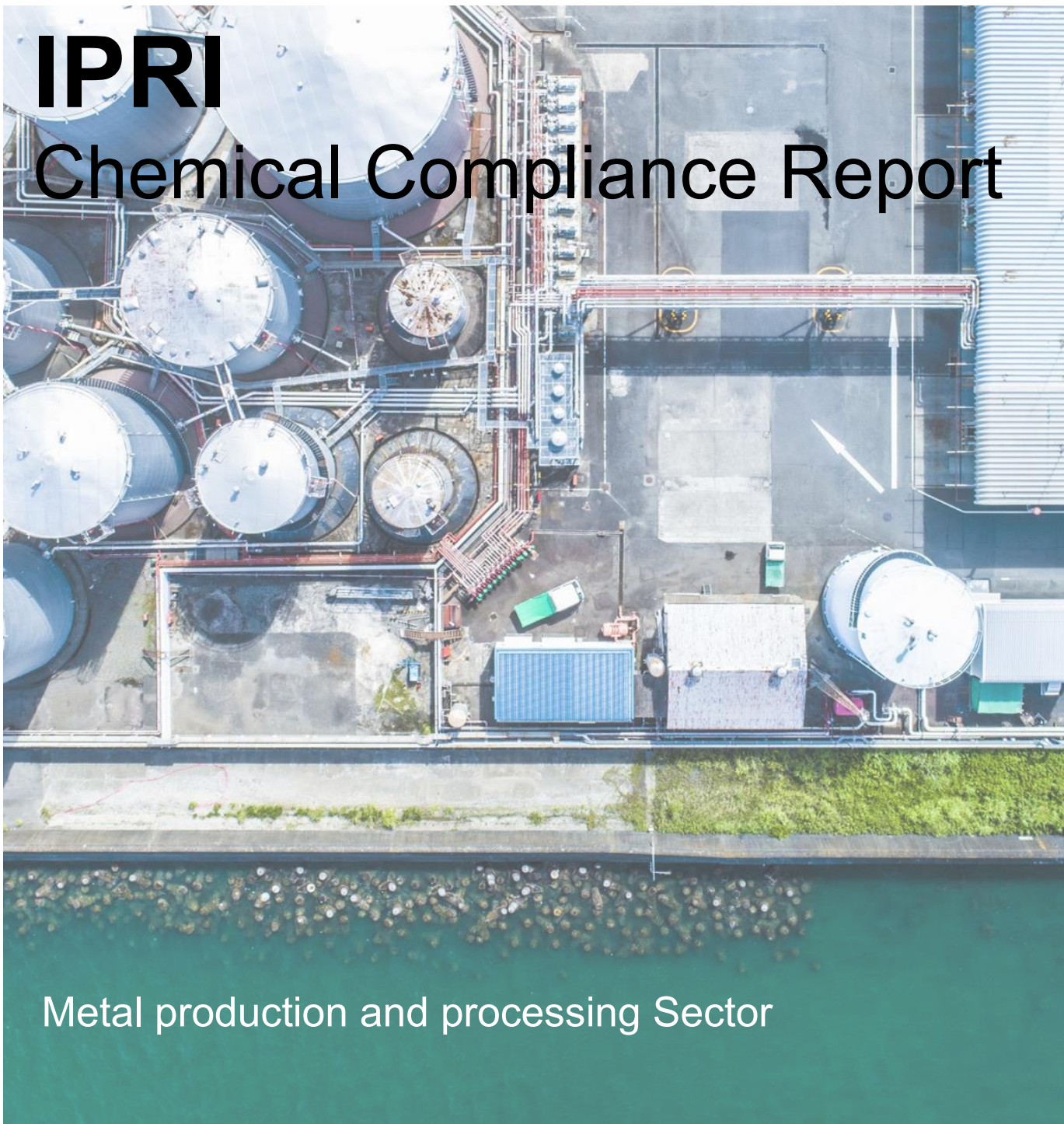




Northern Ireland Environment Agency
Gníomhaireacht Comhshaoil Thuaisceart Éireann
Norlin Airlan Environment Agency

IPRI Chemical Compliance Report



Metal production and processing Sector



An Agency within the Department of
**Agriculture, Environment
and Rural Affairs**
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Gníomhaireacht de chuid na Roinne
**Talmhaíochta, Comhshaoil
agus Gnóthaí Tuaithe**

An Agency w'in the Department o
**Fairmin, Environment
an' Kintra Matters**

Chemical Compliance Report

1. Metal production and processing Industry – Part A and Part B sites¹

The Chemical Compliance Team, part of the Industrial Pollution and Radiochemical Inspectorate within the Northern Ireland Environment Agency (an Executive Agency of DAERA), has responsibility for enforcing the following regulatory regimes, which are subject to the Windsor Framework:

- REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals), where the [EU REACH](#) Regulation EC1907/2006 is enforced in NI through The [REACH Enforcement Regulations 2008](#)²;
- POPs (persistent organic pollutants) - the UK is party to the UN [Stockholm Convention on Persistent Organic Pollutants \(POPs\)](#). The UK's National Implementation Plan sets out how all 4 regions of the UK plan to meet our obligations under the Convention. The [EU Regulation on Persistent Organic Pollutants](#) EU 2019/1021 is enforced in NI through [The Persistent Organic Pollutants Regulations 2007](#).;
- Mercury - the UK is party to the UN [Minamata Convention on Mercury](#), and the [EU Mercury Regulation 2017/852](#) and [EU Mercury Regulation 2024/1849](#) are both enforced in NI through [The Control of Mercury \(Enforcement\) Regulations 2017](#).

Between February and October 2025, chemicals inspections were undertaken on Part A installations¹ within the metal production and processing industry, with 14 installations being examined. 10 sites were visited and inspected in partnership with the NIEA Pollution Prevention and Control (PPC) inspector.

2. Summary of the inspections

- Inventories received
- Type of issues encountered with sites
- Lessons learned

¹ Part A installations are those installations for which a part A permit is required under The Pollution Prevention and Control (Industrial Emissions) Regulations (NI) 2013 (the PPC IE Regulations) for the carrying out of activities listed in Schedule 1 to the PPC IE Regulations. Part B installations require a Part B permit.

² The REACH Regulations are enforced jointly by the Health and Safety Executive for Northern Ireland (HSENI), NIEA (an Executive Agency of DAERA), and the local councils. The functions of the enforcing authorities are laid out in Schedule to the REACH Enforcement Regulations 2008. The functions of DAERA (undertaken by NIEA) are to (a) prevent, minimise, remedy or mitigate the effects of pollution on the environment and (b) to ensure the safety of the environment.

3. Inventories received

12 chemical inventories were received in various formats, with a range of 7 to >6000 chemicals reported across the sites.

None of the sites inspected reported the use or storage of any Persistent Organic Pollutants.

Table 1 Overview of the number of REACH authorisations, restrictions or candidate substances within metal production and processing sector

REACH Authorisation	REACH Restriction	REACH Candidate List
7	13	2

Table 2 Overview of the type of REACH authorisations within metal production and processing sector

Chemical	Authorisation number under Annex XIV to REACH	Authorised use
Chromium (VI) Trioxide	REACH/20/18/12 REACH/20/18/13	Functional chrome plating where any of the following key functionalities is necessary for the intended use: wear resistance, hardness, layer thickness, corrosion resistance, coefficient of friction, or effect on surface morphology
	REACH/20/18/20 REACH/20/18/26	Surface treatment for applications in the aeronautics and aerospace industries, unrelated to functional chrome plating or functional chrome plating with decorative character, where any of the following key functionalities is necessary for the intended use: corrosion resistance / active corrosion inhibition, chemical resistance, hardness, adhesion promotion (adhesion to subsequent coating or paint), temperature resistance, resistance to embrittlement, wear resistance, surface properties impeding deposition of organisms, layer thickness, flexibility, and resistivity

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	REACH/20/18/34	Passivation of tin-plated steel (electrolytic tin plating – ETP)
Chromium (VI) Trioxide	UKREACH24/20/2 UKREACH24/11/1 UKREACH24/12/3 UKREACH24/15/5 UKREACH24/17/3 UKREACH24/19/2	Passivation of (non-Al) metallic coatings using chromium trioxide in the aerospace and defence industry and its supply chains
Sodium dichromate anhydrous	REACH/20/5/0	Use in formulation of mixtures intended exclusively for uses REACH/20/5/3, REACH/20/5/4, REACH/20/5/5, REACH/20/5/6, REACH/20/5/7 and REACH/20/5/8
	REACH/20/5/3	Use for surface treatment of metals (such as aluminium, steel, zinc, magnesium, titanium, alloys), composites and sealings of anodic films for the aerospace sector in surface treatment processes
	REACH/20/5/6	Use for electrolytic passivation of tin-plated steel for the packaging industry
Sodium dichromate solution 60%	REACH/24/65/2	Formulation of mixtures with potassium dichromate exclusively intended for uses authorised under Regulation (EC) No 1907/2006 in aerospace and defence industry and its supply chains for surface treatments
	REACH/24/67/4	Use of sodium dichromate in pre-treatments: deoxidising, pickling, etching or desmutting in aerospace and defence industry and its supply chains
disodium tris(chromate)	REACH/20/1/3	Surface treatment of metals (such as aluminium, steel, zinc, magnesium, titanium, alloys), composites and sealings of anodic films for the aerospace sector in surface treatment processes
Nonylphenol Ethoxylate	REACH 22/19/1	Mixing of base polysulfide sealant components with 4-NPnEO-containing hardener, resulting in

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		<p>mixtures containing less than 0,1 % w/w of 4-NPnEO for aerospace uses that are exempt from authorisation under Article 56(6), point (a), of Regulation (EC) No 1907/2006, in the aerospace sector and associated supply chains</p>
Potassium dichromate	REACH/20/2/0	<p>Formulation of mixtures for surface treatment of metals (such as aluminium, steel, zinc, magnesium, titanium, alloys), composites and sealings of anodic films intended exclusively for use REACH/20/2/1</p>
	REACH/20/2/1	<p>Surface treatment of metals (such as aluminium, steel, zinc, magnesium, titanium, alloys), composites and sealings of anodic films for the aerospace sector in surface treatment processes</p>
Potassium hydroxyoctaoxodizincate dichromate	REACH 20/6/8	<p>In primer and coatings (including as wash primers) for the aerospace sector in which any of the following key functionalities is required: corrosion resistance, adhesion of paint/compatibility with binder system, layer thickness, chemical resistance, temperature resistance (thermal shock resistance), compatibility with substrate and processing temperature</p>
Strontium chromate	REACH/20/7/17	<p>Application of primers and specialty coatings in the construction of aerospace and aeronautical parts, including aeroplanes/helicopters, spacecraft, satellites, launchers, engines, and for the maintenance of such constructions for the aerospace sector in which any of the following key functionalities is required: corrosion resistance, adhesion of paint/compatibility with binder system, layer thickness, chemical resistance, temperature resistance (thermal</p>

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		shock resistance), compatibility with substrate or processing temperatures
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Table 3 Overview of the type of REACH restrictions within metal production and processing sector

Chemical	Entry number on Annex XVII to REACH	Condition checked
Caustic soda Sulphuric acid Dimethylethanolamine (DMEA)	3	Not to be used in ornamental lamps or ashtrays, tricks or jokes, or games.
Mercury sulphate	18	Not to be used to prevent fouling of marine equipment, preservation of wood, textiles or treatment of industrial waters
Cadmium	23	Not be used in mixtures and articles produced from synthetic organic polymers (hereafter referred to as plastic material)
Nickel acetate Nickel sulphate	27	Not to be used in jewellery items or garment items such as buttons or rivets
Ethanediol	28 (carcinogen) 30 (reproductive toxicant)	Not be placed on the market, or used, as substances or as constituents of other substances or in mixtures, for supply to the general public above certain concentrations.
Dimethylethanolamine (DMEA)	40	Not to be used in aerosol dispensers for decorative

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		purposes in the general public.
Nonylphenol Ethoxylate	46	Not be placed on the market, or used, as substances or as constituents of other substances or in mixtures, for supply to the general public above certain concentrations and with restricted uses
Toluene	48	Not to be used in spray paints or adhesives greater than 0.1% by weight
Methylenediphenyl diisocyanate (MDI)	56	not be placed on the market as a constituent of mixtures in concentrations equal to or greater than 0,1 % by weight of MDI for the general public
Cyclohexane	57	Not to be used in neoprene-based contact adhesives
Di-isocyanates	74	Not be placed on the market, or used, as substances or as constituents of other substances or in mixtures, for supply to the general public above certain concentrations.
Caustic soda	75	Not to be used in tattoo inks or permanent make-up

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Formaldehyde	77	Not to be used in furniture or wood-based articles
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Table 4 Overview of the type of REACH candidate lists within metal production and processing sector

Chemical	Entry number on Annex XVII to REACH	Reason for addition
Boric acid Sodium tetraborate	SVHC	Substance of very high concern (SVHC) due to its classification as toxic for reproduction (Article 57c)

4. What we found

- There were no breaches of the regulations that required enforcement action to be taken under the DAERA Enforcement and Prosecution Policy.
- One site requires additional permitting under the requirements of the Pollution Prevention and Control (Industrial Emissions) Regulations (NI) 2013 scheduled activities and the regulator is engaging with the operator to secure compliance with this legal requirement
- Across all the inspections undertaken, the most frequently observed non-conformance related to Safety Data Sheets (SDSs), with a high proportion found to be non-compliant with EU REACH regulatory requirements. In total, 33 minor non-conformances were raised. 9 sites were noted to be using UK REACH safety data sheets.
- One supplier was referred to HSENI for not providing valid authorisation numbers.
- Other findings were related to storage of waste, issues with bunding and inadequate spillage kits provision.

5. What we did:

In order to secure compliance with the regulations, the following actions were carried out-

- Operators were advised of their EU regulatory requirements and advised to contact their suppliers to ensure compliant Safety Data Sheets were obtained.
- Requested evidence that:

- spillage kits had been replaced;
- bund maintenance and repairs had been performed; and
- waste storage issues had been resolved.

6. How did we improve our service delivery?

We improved our service delivery by-

- Provision of the spreadsheet to ensure we received adequate information;
- Combined assessments for companies with multiple sites;
- Performing the desktop review before site visit provided ability to focus on issues whilst on site;
- Providing advice on requirements under EU REACH; and
- Recognising the additional permit requirements for usage of isocyanates and engaging with the operator to secure compliance.

7. What we will do next

The next phase of regulating the metal production and processing industry will be to examine sites that are not undertaking an activity prescribed under the PPC IE Regulations, but involved in metal plating.

Follow up inspections will be undertaken to those sites inspected in due course.

The programme of inspections will continue for Part A Installations, on a sector-by-sector basis. These have already commenced, focusing on Part A sites in the energy industry, industries using dyes, and fuel storage sites regulated under COMAH ([the Control of Major Accident Hazards Regulations 2015](#)).



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