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CASE CHEMOURS

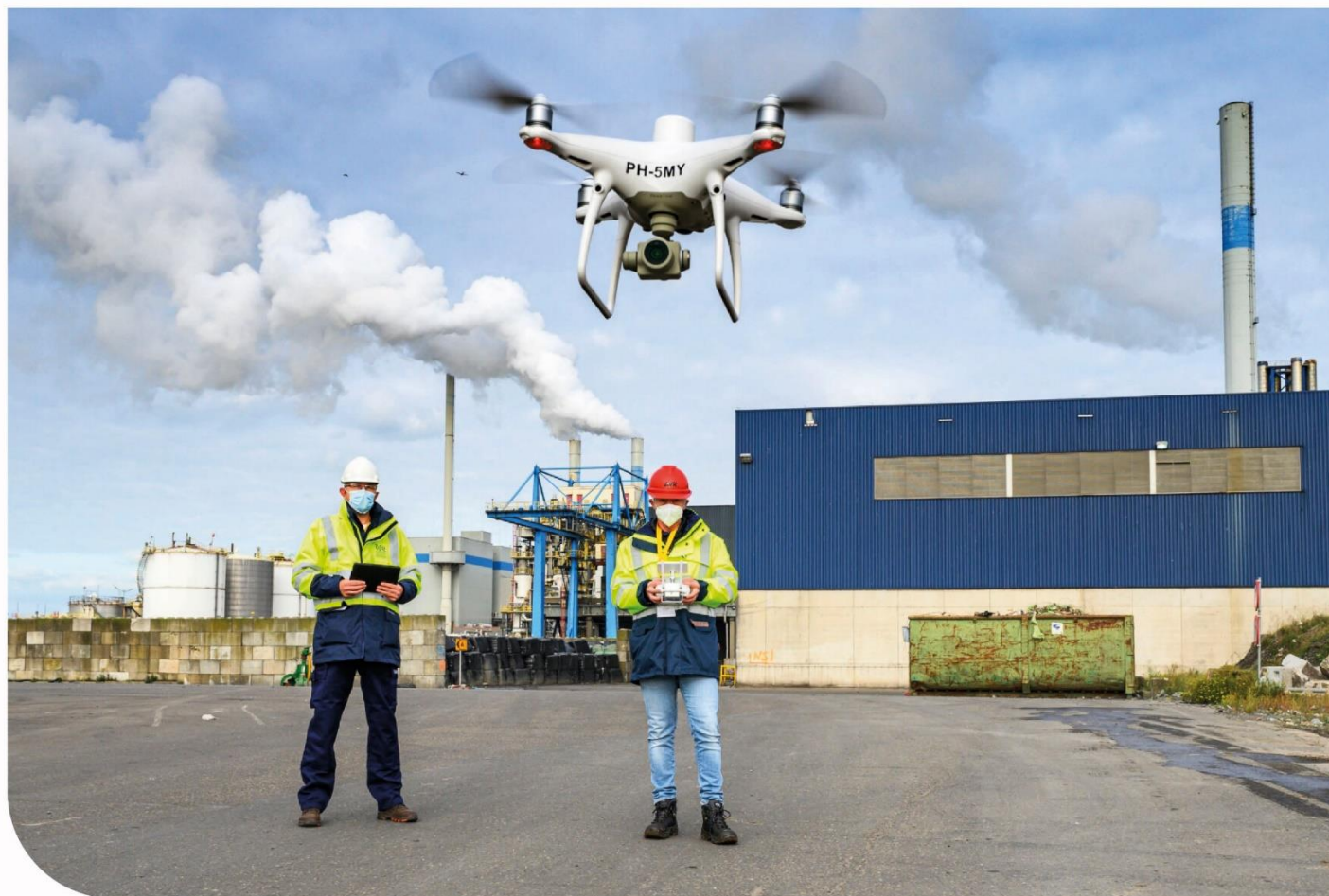
WHO WE ARE

in the Rijnmond area





WHAT WE DO

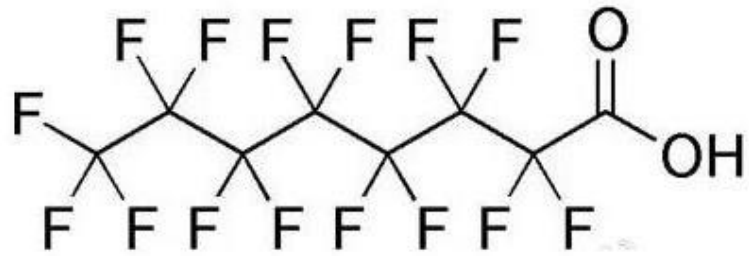


CHEMOURS

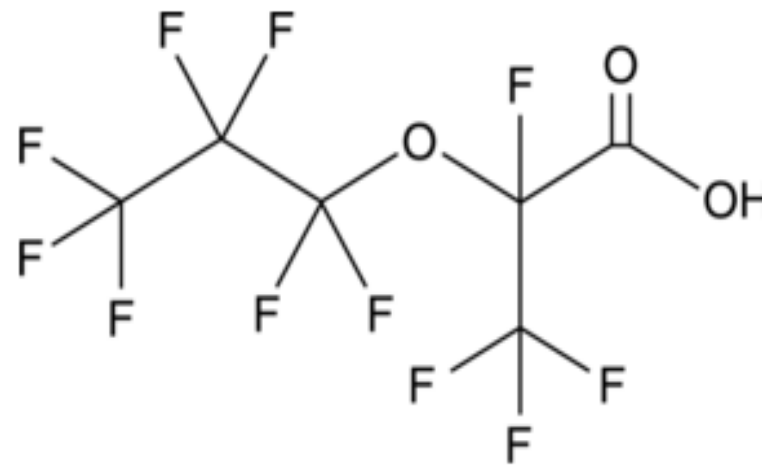
- US based company
- Formerly DuPont, new legal entity
- Produces teflon and other water resistant, heat resistant, grease resistant materials
- Basic ingredients: Chloroform and Hydrogen fluoride with PFAS as dispersant



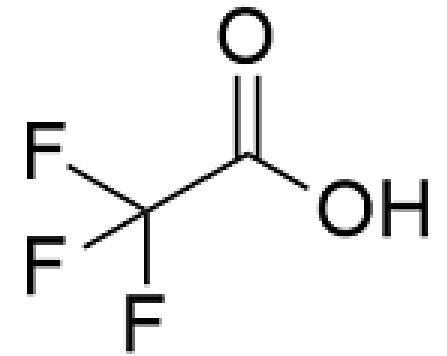
WHAT IS PFAS?



PFOA

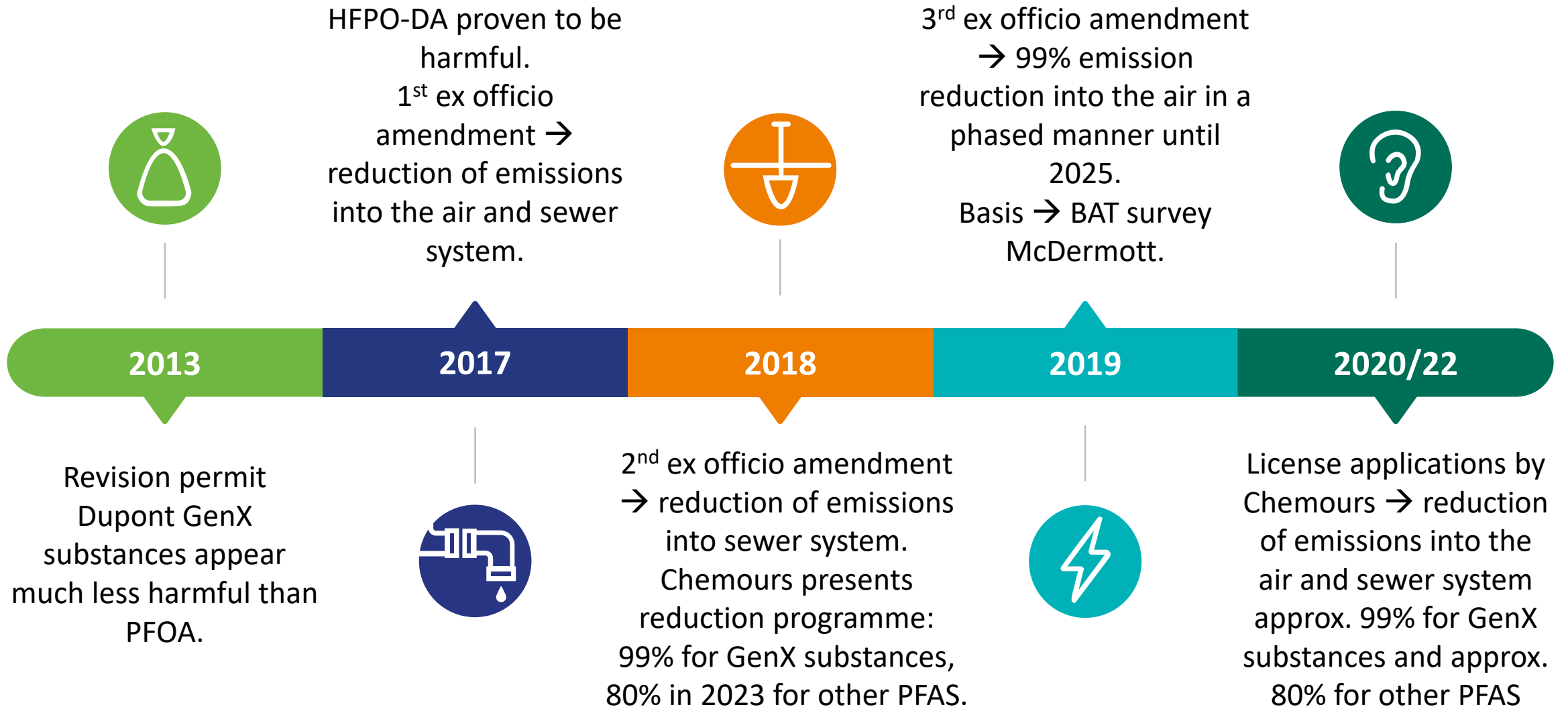


HFPO-DA (GenX)



TFA

REGULATION: PERMITS



REGULATION

FRAGMENTED REGULATION

- Safety of local residents, air, soil, noise, discharge into sewers → Province South-Holland by DCMR
- Discharge to surface water → RWS (Public Service for National Waters)
- Waste transports → ILT (National Inspectorate of the Environment and Transport)
- F-gases → ILT
- Old soil contamination → Municipality of Dordrecht

REGULATION

CHALLENGES

- Enforcement on the basis of the precautionary principle almost impossible – burden of proof lies with public authorities.
- Administrative readiness and the availability of sufficient staff to permit and enforce as effectively as possible (by intensified supervision)
- Permit requirements based on the criteria drawn up by the RIVM (National Institute for Public Health and the Environment):
 - existing standards
 - indicative recommended values
- Disadvantage: A lot of regulation – less proactive attitude of the company – more likely to be involved in lawsuits.
- Consider uncertain substances on the basis of the precautionary principle as substances of Very High Concern (ZZS in Dutch)

REGULATION OF WASTEWATER

EXAMPLE

Substance	Maximum annual emission [kg/Year]	Maximum concentration [$\mu\text{g/l}$]
HFPO-DA	2,0	100
PFOA	0,04	0,05
6:2 FTS	0,50	1,00
PFBS	0,002	0,25
PFHxA	0,003	0,04
PFOS	0,002	0,01
PFHpA	0,002	0,01
PFNA	0,003	0,01
PFDA	0,005	0,01
PFunDA	0,005	0,01
PFPeA	0,005	3,0
PFBA	0,021	3,0

REGULATION OF EMISSIONS TO AIR

EXAMPLE

Substance from stack TL100	Maximum annual emission [kg/Year]
HFPO-DA	3,1
E1	23,1
HFP	555
PFIB	0,2
TFE	2.057

ADDITIONAL REQUIREMENTS

- A measurement plan for the frequency of measurement, method of sampling and analysis must be drawn up
- After approval, the measurement plan must be carried out
- The measurements are carried out by an accredited authority
- The execution of a measurement is notified in advance

REDUCTIONS OF EMISSIONS

Year	Sewing system (kg/year)	
	HFPO-DA (FRD)	PFOA
2013	6.400	
2017	2.035	
2018	140	
2020	20	0,04
2021	2	0,04

N.B. Permit Rijkswaterstaat
(Public Service for National Waters)
on the Beneden Merwede.

- HFPO-DA 5 kg/year
- PFOA 2 kg/year

REDUCTIONS OF EMISSIONS

	Air (kg/year)			
Year	HFPO-DA (FRD)	E1	PFOA	Other organic fluorine compounds
2013	660	1.200		172.883
2017	450	459		172.883
2020	95	459	0,15	172.883
2021	4	459 / 32*	0,15	154.858
2022	4 / 3,5*	459 / 32*	0,15	154.858
2024	4 / 3,5*	459 / 32*	0,15	34.575 / 20.681*
2025	4 / 3,5*	459 / 25*	0,15	34.575 / 1.732*

* BEFORE annulment of the permit by the court

ENFORCEMENT

ENFORCEMENT ON THE BASIS OF

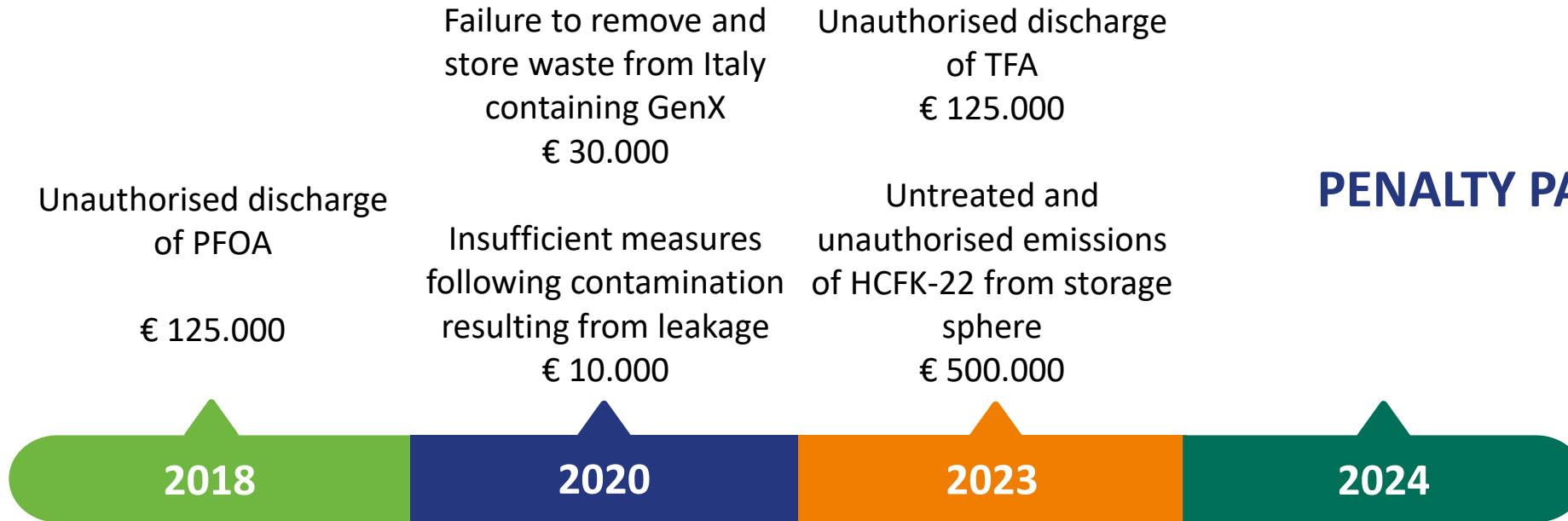
- SEVESO Directive
- Annual loads prescribed in the licence
- Emission concentrations prescribed in the permit
- Operating without or outside of a licence

ENFORCEMENT TOOLS

- Incident investigation
- Letter of warning
- Penalty payment
- Criminal investigation

Incidents that are being or may be handled by the Public Prosecution Service in the context of criminal law, are not made public. DCMR however conducts preliminary investigations.

ENFORCEMENT



PENALTY PAYMENTS

PRELIMINARY INJUNCTIONS

WHAT ABOUT RESPONSIBILITY

A company for which social responsibility and sustainability are a key focus in its corporate vision may certainly be expected to take its responsibility for its environment, and for any damage that arose in the past.

Chemours appears to have a strategy that involves submitting as many points for appeal as possible, as well as last-minute legal documents aimed at delaying the appeal cases brought by them.





QUESTIONS?

About this presentation