NEW UPDATES

ICOMIA

INTERNATIONAL COUNCIL OF MARINE INDUSTRY ASSOCIATIONS

Sustainability Guide

THE LATEST ENVIRONMENTAL LEGISLATION FROM THE RECREATIONAL MARINE INDUSTRY

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PLEASE NOTE: NEW INFORMATION AND UPDATES ARE HIGHLIGHTED IN BLUE

Contents

A. Industry related legislative developments within Australia/Asia

1. Australia's climate change strategies

Australia manages and delivers policies and programs to respond to climate change.

Please click on the hyperlinks throughout for more information

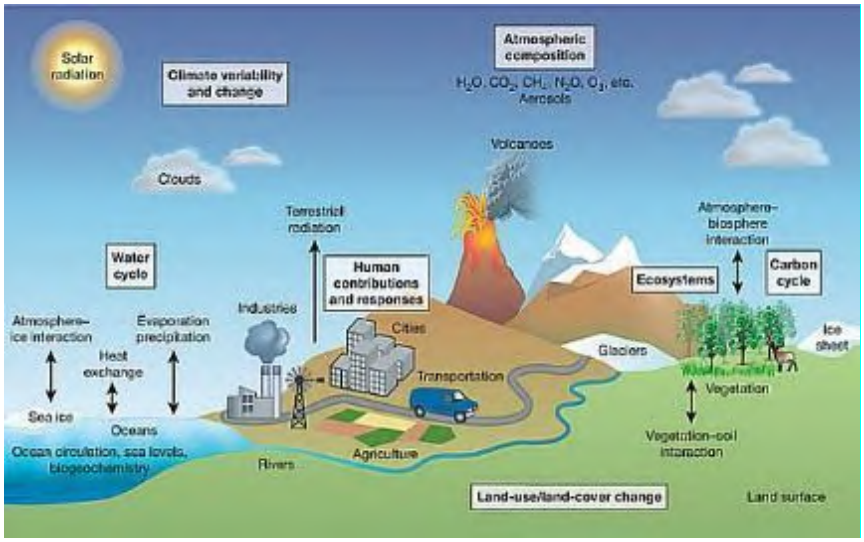
What

Australian climate change strategies are about regulations and standards to a number of sectors to meet Australian industry and consumer needs. Australian Governments develop and administer domestic actions to reduce Australia's greenhouse gas emissions and meet the obligations under the Paris Agreement.

Why

Australia is affected by many different weather systems; the climate can vary greatly from one year to the next. This climate variability is driven by many significant climate features that will have varying levels of impact in different regions at different times.

Important climate drivers in Australia include El Niño-Southern Oscillation (ENSO), the Indian Ocean Dipole, the Australian monsoon and the Madden-Julian Oscillation, and the Southern Annular Mode. These drivers have varying levels of influence on rainfall in Australia over different regions and seasons.



Scope

Australian Government's domestic actions to reduce Australia's greenhouse gas emissions and meet obligations under the Paris Agreement. This includes:

- developing and coordinating domestic climate change policy
- administering climate change programs to help reduce emissions
- developing and coordinating renewable energy policy and regulation
- engaging with stakeholder groups and the community on climate priorities
- supporting business and industry to innovate and adopt smarter practices and technologies
- helping the land and agriculture sector reduce greenhouse gas emissions and adapt to the changing environment

Australian domestic policies ensure is not only meeting its international obligations but is preparing for a lower emissions future through: investment and incentives for business and industry reporting and regulation of our biggest emitters supporting individuals and households.

Additional information

IMPACTS OF CLIMATE CHANGE ON CLIMATE INFLUENCES

The IPCC (**Chapter 12 in IPCC, 2013**) concluded that there is high confidence that ENSO will remain the dominant mode of year-to-year variability in the tropical Pacific, with global effects in the 21st century. Global warming is expected to increase the frequency of **extreme El Niño** events and **extreme La Niña** events.

Increased intensity (higher pressure) in the subtropical ridge in the wider Australian region has been linked to a marked decline in the frequency of troughs associated with rainfall since 1975 for south-west Western Australia, with the increasing pressure potentially explaining two-thirds of the rainfall decline in those regions.

2. Federal Recycling and Waste Reduction Bill (a framework Bill)

Please click on the hyperlinks throughout for more information

What:
A Bill for an Act to reduce the environmental and other impacts of products and waste material, and for related purposes. Introduced with the Recycling and Waste Reduction (Consequential and Transitional Provisions) Bill 2020, Recycling and Waste Reduction Charges (General) Bill 2020, Recycling and Waste Reduction Charges (Customs) Bill 2020 and Recycling and Waste Reduction Charges (Excise) Bill 2020, the bill establishes a framework to: regulate the export of waste materials, in line with the agreement to ban the export of waste plastic, paper, glass and tyres by the Council of Australian Governments in 2020; manage the environmental, health and safety impacts of products, in particular those impacts associated with the disposal of products; and provide for voluntary, co-regulatory and mandatory product stewardship schemes.

Why:
Climate Change and Biodiversity requires a reduction of impacts to the environment and nature of waste materials.

Scope:
The objects of this Act are as follows:

- to reduce the impact on human and environmental health of products, waste from products and waste material, including by reducing the amount of greenhouse gases emitted, energy and resources used and water consumed in connection with products, waste from products and waste material;
- to realise the community and economic benefits of taking responsibility for products, waste from products and waste material;
- to promote a circular economy that maximises the continued use of products and waste material over their life cycle and accounts for their environmental impact to contribute to Australia meeting its international obligations concerning the impact referred to in paragraph.

Effect on the Recreational Marine and Superyacht Industries:
It will affect all disciplines and sectors within the Recreational and Superyacht Industries!

Additional information
The Bills objects are to be achieved by:

- regulating the export of waste material to promote its
- management in an environmentally sound way; and
- encouraging and regulating the reuse, remanufacture,
- recycling and recovery of products, waste from products and
- waste material in an environmentally sound way; and
- encouraging and regulating manufacturers, importers,
- distributors, designers and other persons to take
- responsibility for products, including by taking action that
- relates to:
    - reducing or avoiding generating waste through improvements in product design;
    - improving the durability, reparability and reusability of products; and managing products throughout their life cycle.

3. BIASA and HHA Approval for Grey Water Treatment Systems - Commercial River Craft (including Charter vessels) in South Australia

Please click on the hyperlinks *throughout for more information*

What:
The Environment Protection Authority (EPA) is satisfied that reasonable and practical opportunities exist for vessel operators to provide on-board wastewater management systems suitable for the vessel and its operational requirements in South Australia's inland waters. It is imperative that operators take all reasonable and practical measures to avoid any discharge of grey water. This will reduce the environmental and public health risks associated with discharging a vessel's grey water into South Australia's aquatic environments.

Why:
Through the release of its grey water, a vessel can cause significant harm, especially in sensitive aquatic areas. Furthermore, increasing numbers of houseboats with en-suites, spas, dishwashers and washing machines moored alongside one another on the River Murray can pose health risks, both to those on-board and other recreational river users through the discharge of grey water. For example, water extracted from the River Murray is often only filtered for use in the kitchen sink; in many cases the water used for washing, showers and spas is taken directly from the River Murray and may therefore contain pollutants released by an adjacent vessel, or even one's own.

When:
For the management of grey water, vessel operators are required to observe the following compliance dates:

- 1 January 2009 for all newly constructed vessels
- 1 January 2010 for existing commercial vessels in survey and those that are permanently occupied
- 1 January 2011 for all other vessels

Scope:
The Code of practice for vessel and facility management (marine and inland waters) introduces mandatory requirements for vessel operators managing wastewater. A range of options are available for the management of grey water, depending on the size of the vessel and how it is used. Grey water management options include containment, treatment and changing on-board behaviour regarding water use. For more information regarding the specific grey water management requirements for your vessel, refer to the EPA information sheet, Wastewater requirements for vessels operating on inland waters.

Effect on the Recreational Marine and Superyacht Industries:
All vessels operating on inland waters are required to:

- Contain all grey water (installation of a containment device for disposal into land-based waste water management systems/holding tanks)

or

- Treat all grey water (installation of a grey water treatment system)
- Apply behaviour changes of the users (e.g. use of environmentally friendly detergents etc.)

What industrial processes are affected by this legislation?

- Design of commercial vessels, including charter vessels for recreational marine industry
- Construction in particular to the systems and equipment for holding tanks or on-board waste water treatment systems
- Dock side facilities
- Environmental behaviour of the users
- Inspections regarding compliance of vessels

Additional Information:
Legislation may be viewed on the Internet at www.legislation.sa.gov.au

Copies of legislation are available for purchase from:

Service SA Government Legislation Outlet
Adelaide Service SA Centre
108 North Terrace
Adelaide SA 5000
Website: www.shop.service.sa.gov.au

4. Code of Practice for Vessel and Facility Management; South Australia

Please click on the hyperlinks *throughout for more information*

What:
This code embraces the prevention of pollution which may arise from the construction, use, and maintenance of vessels and related facilities. It provides guidance for ship and boatbuilders and repairers, shipping companies, maritime construction engineers, fishing organisations, yachts-people and even the lone enthusiast who occasionally puts to sea in a 'tinny' with fishing rod and icebox on board. It is for both those who earn a living from the sea or other waterways and for those who use our waters for holidays, recreation and sport.

Why:
The South Australia Environment Protection Authority (EPA) has drafted this code with the assistance of a community based advisory group whose members have wide-ranging interests in our waterways. Members of this advisory group volunteered to contribute to this code and acted in an honorary capacity. They recognise the need for protecting the environment for their well-being and the well-being of those who come after them.

South Australia's aquatic environments contain valuable flora and fauna supported by a diversity of habitats such as rocky and sandy beaches, rivers, estuaries and the open ocean.
Our lifestyle is increasingly threatening the health and sustainability of these environments.

South Australia's marine and inland waters have substantial environmental, social and economic value. The state government therefore has a responsibility to protect these habitats and their biodiversity, and to provide community leadership and direction in their sustainable use, improved management and conservation. Aquatic users are dependent on these resources, whether for commercial harvesting of fish and crustaceans or for enjoying recreational pursuits such as fishing and water sports.

When:
The (general) Environment Protection Act (EP Act) came in force in 1993. As part of the Protection Act the Code of Practice for vessel and facility management in South Australia came in force in 2007.

At the top of the hierarchy, the EP Act provides for the protection of the environment and defines the authority's functions and powers. The Act promotes ecologically sustainable development and the use of the precautionary principle to minimise environmental harm. It requires polluters to bear an appropriate share of the costs and responsibilities of protecting the environment from their activities. The Act makes people or organisations responsible for minimising harm to the environment resulting from their actions.

Scope:
This code of practice applies to people, organisations and agencies that own, operate and use vessels, vessel construction and maintenance facilities (including slipways and launch facilities), and vessel storage facilities (including dry dock boat yards, marinas, moorings, boat and yacht clubs) within or adjacent to the state waters of South Australia. State waters include inland, estuarine and marine waters which include coastal state and territorial waters vested in the state.

Recreational Marine and Superyacht Industries - Actions Required:

- Develop, implement and review (annually) an Environmental Management System (EMS) to achieve high environmental performance standards for all operations undertaken
- Establish facility/vessel specific environmental management practices (where multiple facilities/vessels are owned) beneath an overall EMS to ensure practices are relevant to the individual circumstances

- Incorporate relevant best environmental management practices from this code of practice and/or from EMS into contractual (or non-contractual) conditions of using the facility or vessel
- Develop emergency management procedures, including those for storm water management during extreme events
- Have users, customers, contractors, employees and members provide written acknowledgment that they understand and will abide by EMS obligations before undertaking any work or activity on your vessel or facility
- Keep copies of all government permits and conditions of approval related to the construction and operation of the facility. This may include land use planning permits and Crown Land lease or EPA licence conditions

What industrial processes are affected by this legislation?

All processes of the following operators:

- Vessel
- Slipway
- Marina
- Boat yard
- Boat ramp
- Boat and yacht club

Additional Information:

The EPA codes of practice do not contain offence provisions, but they fit within a framework of regulatory tools that can be used by the EPA. When a code of practice is linked to an Environment Protection Policy (EPP), compliance with the requirements of a code (the things that you must or must not do) can be enforced by an Environment Protection Order (EPO). Non-compliance with an EPP is an offence under the Environment Protection Act
1993.

5. National Bio Fouling Management - Guidelines for Recreational Vessels

Please click on the hyperlinks *throughout for more information*

What:
These Guidelines have been developed to assist recreational craft owners and operators (Charter) reduce the risk of spreading marine pest by managing bio fouling on the vessels/craft.

Why:
Marine pests are great hitchhikers and readily attach themselves to hulls, internal seawater systems and damp spaces or to boating gear such as anchors, ropes ad buckets.

When:
The guidelines came into force January 2009.

Scope:
The objectives of these guidelines are to provide practical guidance to recreational craft owners and operators and others on measures to minimize the risk of transferring marine pests (invasive aquatic species) from crafts bio fouling. It is important for bio fouling management procedures to be effective as well as environmentally safe and practicable.

Effect on the Recreational Marine and Superyacht Industries:
Implementation of an effective marine pests and bio fouling management regime is critical for minimising the transfer of invasive aquatic species. The bio fouling management measures to be undertaken on recreational craft should be outlined in a bio fouling management plan and records of bio fouling management practices kept in a bio fouling record book for superyachts, see also IMO guidelines. For small craft follow the National Australian Guidelines

What industrial processes are affected by this legislation?

- Design and construction, particularly the number, location and design of niche areas
- Design related to specific operating profile, including factors such as operating speeds, ratio of time underway compared with time alongside, moored or at anchor, trailered and where the craft is located when it is not in use (e.g. open anchorage or estuarine port)
- Repair & maintenance process and history of maintenance
- Port and marina processes related to the facilities

6. Recycling Expanded Polystyrene Australia

Please click on the hyperlinks *throughout for more information*

What:
Recycling Expanded Polystyrene Australia (RESPA) was established to assist authorities and industry with the management of expanded polystyrene (EPS) related issues.

REPSA is committed to the continued success of EPS recycling in this sector. It provides a forum for discussion of the environmental issues relating to the use and recycling of EPS, as well as acting as the main body when dealing with public, government and business misconceptions on the recyclability and value that EPS offers.

Why:
Life cycle analysis traces the energy used and waste generated from producing, transporting and disposing of polystyrene products. It is a useful way of comparing alternatives.

When:
The Recycling rule came into force in 2004.

Effect on the Recreational Marine and Superyacht Industries:
EPS affects several construction items due its positive strength-to-weight ratio, making it an effective and popular solution for use in gliders, light and model boats and also surfboards.

Considerable quantities of EPS are also used in packaging applications. Its exceptional shock absorbing characteristics make it ideal for the storage and transport of fragile and expensive items such as electronic equipment, machinery, furniture, chemicals and other products.

What industrial processes are affected by this legislation?

- Surfboard and board construction
- Scale models for boats
- Moulds for GRP production
- Construction of marina pontoons and disposing pontoons
- Packaging

Additional Information:
Additional information can be found on the EPSA website and the website of Clean Up Australia

7. Illegal Logging Prohibition Bill 2011

Please click on the hyperlinks *throughout for more information*

What:
The Illegal Logging Prohibition Bill (the Bill) may be cited as the Illegal Logging Prohibition Act 2012. The Bill represents the regulatory elements of the Government's illegal logging policy. These regulatory controls will be complemented by Government investment in capacity building and bilateral and multilateral engagement.

Why:
Peak industry bodies have been widely consulted, including timber importers, trade union representatives, domestic forest industry representatives, environmental non-government organisations, social justice groups, timber manufacturers and retailers of wood products. Consultations across the Commonwealth and state and territory governments took place with an emphasis on establishing the legal basis and the operational and administrative requirements of the policy. The European Union and the United States were consulted in relation to future international forestry policy directions.

When:
The Bill came into force in November 2011 to coincide with the US Lacey Act and EU Regulations.

Scope:
- Build capacity within regional governments to prevent illegal harvesting;
- Develop and support certification schemes for timber and timber products sold in Australia;
- Identify illegally logged timber and restrict its import into Australia;
- Require disclosure at point of sale of species, country of origin and any certification; and
- Argue that market-based incentives aimed at reducing emissions from deforestation and forest degradation should be included in a future international climate change agreement.

Effect on the Recreational Marine and Superyacht Industries:
Customs and border authorities will inspect a number of things, particularly boats which have wooden parts which do not comply with existing Australian standards *(all products not be manufactured of legal timber are forbidden)* and which pose potential impacts to the Australian market.

8. Environment Protection and Biodiversity Conservation Act 1999 (Australia)

Please click on the hyperlinks *throughout for more information*

What:
The Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act) is the Australian Government's central piece of environmental legislation. It provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places — defined in the EPBC Act as matters of national environmental significance. More about the EPBC Act.

Why:

- To provide for the protection of the environment, especially in matters of national environmental significance and to conserve Australian biodiversity
- To provide a streamlined national environmental assessment and approvals process
- To enhance the protection and management of important natural and cultural places
- To control the international movement of plants and animals (wildlife), wildlife specimens and products made or derived from wildlife
- To promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources
- To recognise the role of indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity
- To promote the use of indigenous peoples' knowledge of biodiversity with the involvement of, and in cooperation with, the owners of the knowledge

When:
Entered into force in 1999 and is reviewed annually.

Effect on the Recreational Marine and Superyacht Industries:

- Planning assessments (including marine spatial planning)
- Marina activities
- Invasive species and related measures
- Relation to use of antifouling coatings (see also invasive species)

Additional Information:
All EPBC web materials are currently being updated in relation to the new matter of national environmental significance. Any proponent making a referral should consider all matters protected under the Act and seek further information from the department if required.

The nine matters of national environmental significance (MNES) are:

1. World heritage properties
2. National heritage places
3. Wetlands of international importance (often called 'Ramsar' wetlands after the international treaty under which such wetlands are listed)
4. Nationally threatened species and ecological communities
5. Migratory species
6. Commonwealth marine areas
7. The Great Barrier Reef Marine Park
8. Nuclear actions (including uranium mining)
9. A water resource, in relation to coal seam gas development and large coal mining development.

9. REVIEW OF THE PRODUCT STEWARDSHIP ACT 2011 (Australia)

Please click on the hyperlinks *throughout for more information*

What:
Product Stewardship refers to action taken by those who make, import, sell, use or dispose of products, to reduce the impact of those products on the environment and human health. Product stewardship schemes may be initiated and managed by industry on a voluntary basis, or may be supported by governments through partnerships or regulation.

Why:
The Product Stewardship Act 2011 provides the framework to effectively manage the environmental, health and safety impacts of products, and in particular those impacts associated with the disposal of products and the current developments around LCA and the design of products including managing hazardous materials.

When:
It was enacted to provide a framework to administer and accredit product stewardship schemes in Australia. The Act is required to be reviewed five years after the date of commencement.

The review commenced in March 2017 and a final written report will be provided to the Minister for the Environment and Energy in early 2018.

Effect on the Recreational Marine and Superyacht Industries:
International and domestic experience in the use of product stewardship within the recreational marine industry to deliver enhanced environmental, social and economic outcomes through product design, dissemination of new technologies and research and development.

Additional Information:
Under the Product Stewardship Act 2011 there is a requirement to publish a product list every year.

The product class 'end-of-life air conditioners and refrigerators with small gas charges' was included on the 2013-14 and 2014-15 product lists. The Department has completed consideration of the feasibility of introducing a product stewardship approach for this class of products and will not pursue this approach at this time.

The product class ‘waste architectural and decorative paint’ was also included on the 2013-14 and 2014-15 product lists. Development of a product stewardship approach for waste paint continues and this product class is listed again on the 2015-16 product list.

10. Work Health and Safety Regulations (WHS Act)

Please click on the hyperlinks *throughout for more information*

What:
The WHS Act and WHS Regulations provide a framework to secure the health and safety of workers and workplaces by protecting workers and other persons against harm to their health, safety and welfare through the elimination of risks arising from work, in accordance with the principle that workers and other persons should be given the highest level of protection against harm to their health, safety and welfare from hazards and risks arising from work as is reasonably practicable. The WHS Act and WHS Regulations promote continuous improvement and progressively higher standards of work health and safety.

Amendment:
The model Work Health and Safety (*WHS*) Act has been amended since its publication in 2011. The current version, dated 9 December 2019, includes all amendments made since 2011. Amendments to the *model WHS laws* do not automatically apply in a jurisdiction. For the *model WHS Act*, including any amendments, to have effect in a jurisdiction, it must be passed by the Parliament of a jurisdiction and subsequently enacted. For information on the *WHS* laws in your jurisdiction, please refer to the law in your state.

Why:
The WHS Act requires that a 'Person who Conducts a Business or Undertaking' (PCBU) ensures the health and safety of workers engaged by the PCBU while the workers are at work in the business or undertaking, so far as is reasonably practicable. The PCBU is required to manage risks by:

- Eliminating risks to health and safety so far as is reasonably practicable
- Minimising the risks so far as is reasonably practicable, if elimination is not reasonably practicable

When:
The amendments of the Work Health and Safety (WHS) Regulations came in Force on 9 December 2019

Effect on the Recreational Marine and Superyacht Industries:

- Sanding and blasting activities
- Spraying and other paint application activities
- Welding
- Managing asbestos (removal from yachts)
- Managing hazardous materials and substances

Additional Information:
Variations between states and territories - In implementing the model WHS laws, states and territories are expected to make minor variations from the model, for example names of courts or tribunals, or interaction with local laws. These variations are required for the laws to operate effectively in each jurisdiction. In some instances, states and territories have also made more substantive variations.

Codes of Practice - Codes of practice can be approved under the WHS Act. They are practical guides to achieving the standards of health, safety and welfare required under the WHS Act and the WHS Regulations. An approved code of practice applies to anyone who has a duty of care in the circumstances described in the code. In most cases, following an approved code of practice would achieve compliance with the health and safety duties in the WHS Act, in relation to the subject matter of the code.

An approved code of practice is admissible in court proceedings. Courts may regard an approved code of practice as evidence of what is known about a hazard, risk or control and may rely on the code in determining what is reasonably practicable in the circumstances to which the code relates.

11. Fuel Quality Standards Act 2000 (reviewed 2016)

Please click on the hyperlinks *throughout for more information*

What:
The Fuel Quality Standards Act 2000 placed on obligation on the fuel industry to meet strict environmental requirements. Leaded petrol was prohibited and measures to reduce the level of sulphur in diesel fuel, and other toxic pollutants coming from combustion engine emissions such as benzene and particulates was legislated for.

Today in Australia there are fuel quality standards for:

- Unleaded petrol
- Premium unleaded petrol
- E10
- Diesel
- Autogas
- Biodiesel

Why:
Australia's policy to harmonise with the United Nations Economic Commission for Europe (UNECE), gave rise to the premise that Australian fuel specifications should be harmonised with the corresponding European Directives for market fuel specifications.

When:
The original act came in force in 2000 and the review came in force March 2016.

Effect on the Recreational Marine and Superyacht Industries:
Today in Australia there are fuel quality standards for use of Recreational Craft as well:

- Unleaded petrol
- Premium unleaded petrol
- Diesel
- Biodiesel

Additional Information:
An independent review has found that the Fuel Quality Standards Act 2000 has led to a significant reduction in the mass of pollutants and emissions arising from the use of regulated fuel. The Australian Government will retain and amend the Act to ensure Australians continue to receive its important environmental and health benefits.

Reviewing this legislation is a continuous process and will include individual fuel standards evaluation. The Australian Government has a detailed plan to meet climate change targets.

12. Hazardous Chemicals Requiring Health Monitoring

Please click on the hyperlinks *throughout for more information*

What:
Hazardous Chemicals Health Monitoring provides information about the known hazards of each chemical, symptoms of exposure, medical tests that should be used during health monitoring, and information on when to recommend certain actions like removal from work.

The Hazardous Chemicals Monitoring is related to the Work Health and Safety Regulations (WHS Act)

Why:
Vita for specialists within shipyards/companies as well as medical practitioners carrying out or supervising the health monitoring programme for workers who may be exposed to hazardous chemicals and asbestos

When:
Came in force in 2011.

Effect on the Recreational Marine and Superyacht Industries:
All processes within the Marine Industry with a use of chemicals related to the GHS labelling

Additional Information:
Classification information on each chemical's known carcinogenicity, germ cell mutagenicity and reproductive toxicity is also provided on an advisory basis where this information is known. Classification information is taken from the United Nations and European Union of GHS classification information for certain substances or groups of substances (see page of the ICOMIA Environmental Guide). These classifications are legally binding within the European Union. Additional hazard classes and categories not mentioned in this document may also apply.

B. Industry Related Legislative Developments within EU:

1. European Union 8th Environment Action Programme (to 2030)

Please click on the hyperlinks throughout for more information

What:
The Environmental Action Programmes provide a framework for the EU's overall environmental policy development. They guide the environmental policy-making by identifying priorities and setting out a long-term vision and goals. The first EAP was adopted in 1973.

Why:
To replace the 7th EAP, which was in force until the end of 2020, the Commission tabled on 17 October 2020 a proposal for Decision on a General Union Environment Action Programme to 2030. This new 10-year programme keeps the 2050 vision from the 7th EAP and enforces it by aiming to accelerate the EU transition to a climate-neutral, resource-efficient clean and circular economy in a just and inclusive way, fully endorsing the environmental and climate objectives of the European Green Deal. The 8th EAP should also provide a basis for the achievement of the environmental objectives of the UN Agenda 2030 and its 17 Sustainable Development Goals and the IPCC Climate Assessment (AR6) report

When:
The programme was proposed in October 2020 and came in force July 2021.

Scope:
The 8th EAP has six thematic priority objectives in areas of:

1. climate neutrality
2. adaptation and resilience to climate change and other environmental risks
3. circular economy and regenerative growth decoupling economy from resource use and environmental degradation
4. zero pollution ambition for a toxic free-environment
5. protecting and restoring biodiversity, and enhancing natural capital
6. environmental sustainability and reduction of the environmental pressures from production and consumption

Effect on the Recreational Marine and Superyacht Industries:
It will affect all disciplines and sectors within the Recreational and Superyacht Industries!

Additional information:
To achieve the priority objectives, the Commission proposes a stronger implementation, monitoring and review process. One of the key actions is a new monitoring framework to measure the EU's and Member States' progress in implementing the programme's priority objectives. The Commission will be supported by the European Environment Agency and the European Chemicals Agency to assess and report on the achievements. To this end, the capacities of the two agencies will be reinforced.

2. The European Green Deal; COM/2019/640 final

Please click on the hyperlinks throughout for more information

What:
Climate action is at the heart of the European Green Deal – an ambitious package of measures ranging from ambitiously cutting greenhouse gas emissions, to investing in cutting-edge research and innovation, to preserving Europe's natural environment.

Why:
GCC action plan (UN/IPCC AR6) requires a reducing greenhouse gas emission, the EU is therefore taking action to adapt to the impacts of climate change. By 2050, Europe aims to be a climate-resilient society. Europe intension is to become the world's first climate-neutral continent (2050)!

Scope:

- European Climate Law to enshrine the 2050 climate-neutrality objective into EU law
- European Climate Pact to engage citizens and all parts of society in climate action
- 2030 Climate Target Plan to further reduce net greenhouse gas emissions by at least 55% by 2030
- New EU Strategy on Climate Adaptation to make Europe a climate-resilient society by 2050, fully adapted to the unavoidable impacts of climate change.

Effect on the Recreational Marine and Superyacht Industries:
It will affect all disciplines and sectors within the Recreational and Superyacht Industries

Additional information:
On 17 March 2021, the Member States approved a mandate for the Council for negotiations with the European Parliament in order to reach an agreement on the 8th EAP. Member States ask the Commission to:

- establish a list of actions for the period after the EU Green Deal's key actions are expected to have been put in place
- carry out a mid-term review in 2024
- amend the 8th EAP by legislative proposal in 2025, in order to define further actions until 2030
- provide with annual check-ups, based on limited number of headline indicators, on the progress achieved and planned actions to implement Programme's priority objectives
- carry out an evaluation of the 8th EAP by 31 March 2029

➢ **More information follow the links**

2A. EU Biodiversity Strategy for 2030 (a core part of the EU Green Deal)

Please click on the hyperlinks throughout for more information

What:
The EU's biodiversity strategy for 2030, one of the three pillars of the EU Green Deal, is a comprehensive, ambitious and long-term plan to protect nature and reverse the degradation of ecosystems. The strategy aims to put Europe's biodiversity on a path to recovery by 2030, and contains specific actions and commitments.

Why:
It is the proposal for the EU's contribution to the upcoming international negotiations on the global post-2020 biodiversity framework. A core part of the European Green Deal!

From the world's great rainforests to small parks and gardens, from the blue whale to microscopic fungi, biodiversity is the extraordinary variety of life on Earth. Humans and the Globe are part of, and fully dependent on, this web of life: it gives the food we eat, filters the water, and supplies the air. Nature is as important for Human mental and physical wellbeing as it is for our society's ability to cope with global change, health threats and disasters.

When:
Together with the Green Deal the Biodiversity programme was proposed in October 2020 and came in force July 2021.

Scope:
The biodiversity strategy aims to put Europe's biodiversity on the path to recovery by 2030 for the benefit of people, climate and the planet. The strategy aims to build our societies' resilience to future threats such as:

- the impacts of climate change
- forest fires
- food insecurity
- disease outbreaks - including by protecting wildlife and fighting illegal wildlife trade

Effect on the Recreational Marine and Superyacht Industries:
It will affect all disciplines and sectors within the Recreational and Superyacht Industries

Additional information:
The strategy contains specific commitments and actions to be delivered by 2030. Establishing a larger EU-wide network of protected areas on land and at sea.

- The EU will enlarge existing Natura 2000 areas, with strict protection for areas of very high biodiversity and climate value.
- Launching an EU nature restoration plan
- Through concrete commitments and actions, the EU aims to restore degraded ecosystems by 2030 and manage them sustainably, addressing the key drivers of biodiversity loss.
- As part of this plan, the Commission will propose binding nature restoration targets by the end of 2021.

2B. Chemicals Strategy for Sustainability (a core part of the Green Deal)

Please click on the hyperlinks throughout for more information

What:
The EU's chemicals strategy for sustainability towards a toxic-free environment

Why
Chemicals are essential for the well-being, high living standards and comfort of modern society. They are used in many sectors, including health, energy, mobility and housing.

However, most chemicals have hazardous properties which can harm the environment and human health. The EU already has sophisticated chemicals laws in place, but global chemicals production is expected to double by 2030 (UNEP info) The already widespread use of chemicals will also increase, including in consumer products.

When:
Together with the Green Deal the Biodiversity programme was proposed in October 2020 and came in force July 2021.

Scope:
The EU's chemicals strategy aims to

- better protect citizens and the environment
- boost innovation for safe and sustainable chemicals

Effect on the Recreational Marine and Superyacht Industries:
It will affect all disciplines and sectors within the Recreational and Superyacht Industries

Additional information
Actions from the Chemical Strategy:

- banning the most harmful chemicals in consumer products - allowing their use only were essential
- account for the cocktail effect of chemicals when assessing risks from chemicals
- phasing out the use of per- and polyfluoroalkyl substances (PFAS) in the EU, unless their use is essential
- boosting the investment and innovative capacity for production and use of chemicals that are safe and sustainable by design, and throughout their life cycle
- promoting the EU's resilience of supply and sustainability of critical chemicals
- establishing a simpler "one substance one assessment" process for the risk and hazard assessment of chemicals
- playing a leading role globally by championing and promoting high standards and not exporting chemicals banned in the EU

2C. EU Zero Pollution Action Plan (a key deliverable of the European Green Deal)

Please click on the hyperlinks throughout for more information

What:
It sets out an integrated vision for 2050: a world where pollution is reduced to levels that are no longer harmful to human health and natural ecosystems, as well as the steps to get there.

Why
To provide a toxic-free environment for people and planet, the EU as art of the Green Deal launched the Zero Pollution Action plan. This plan will guide the Sustainable EU work to get there.

When
The Zero Pollution Action Plan was proposed October 2020 and come together with the Green Deal in force.

Scope:
The Zero Pollution Action Plan outlines a number of flagship initiatives and actions, including:

- aligning the **air quality standards** more closely to the latest recommendations of the World Health Organisation,
- reviewing the standards for the **quality of water**, including in EU rivers and seas,
- **reducing soil pollution** and enhancing restoration,
- reviewing the majority of **EU waste laws** to adapt them to the clean and circular economy principles,
- fostering **zero pollution from production and consumption**,
- presenting a Scoreboard of EU regions' green performance to promote **zero pollution across regions**,
- **reduce health inequalities** caused by the disproportionate share of harmful health impacts now borne by the most vulnerable,
- **reducing the EU's external pollution footprint** by restricting the export of products and wastes that have harmful, toxic impacts in third countries,
- launching Living Labs for **green digital solutions and smart zero pollution**,
- consolidating the **EU's Knowledge Centres for Zero Pollution** and bringing stakeholders together in the Zero Pollution Stakeholder Platform,
- stronger **enforcement of zero pollution together** with environmental and other authorities.

Jointly with the Chemicals Strategy for Sustainability adopted last year, the action plan translates the EU's zero pollution ambition for a toxic-free environment into action. It goes hand in hand with the EU's goals for climate neutrality, health, biodiversity and resource efficiency and builds on initiatives in the field of energy, industry, mobility, food, circular economy, and agriculture.

Additional information
Worldwide effort is under way to fight the persistent threats to the health of our planet call for urgent remedies too. Climate change, environmental pollution, biodiversity loss and an unsustainable use of natural resources pose multiple risks to human, animal and ecosystem health. They include infectious and noncommunicable diseases, antimicrobial resistance and water scarcity

To build a Healthy Planet for All, the European Green Deal calls for the EU to better monitor, report, prevent and remedy air, water, soil and consumer products pollution, among other things.

There is an urgency to act: Pollution can cause cancer, ischaemic heart disease, obstructive pulmonary disease, strokes, mental and neurological conditions, diabetes and more information see links (UNEP Zero Pollution Action Plan) and Figure below.

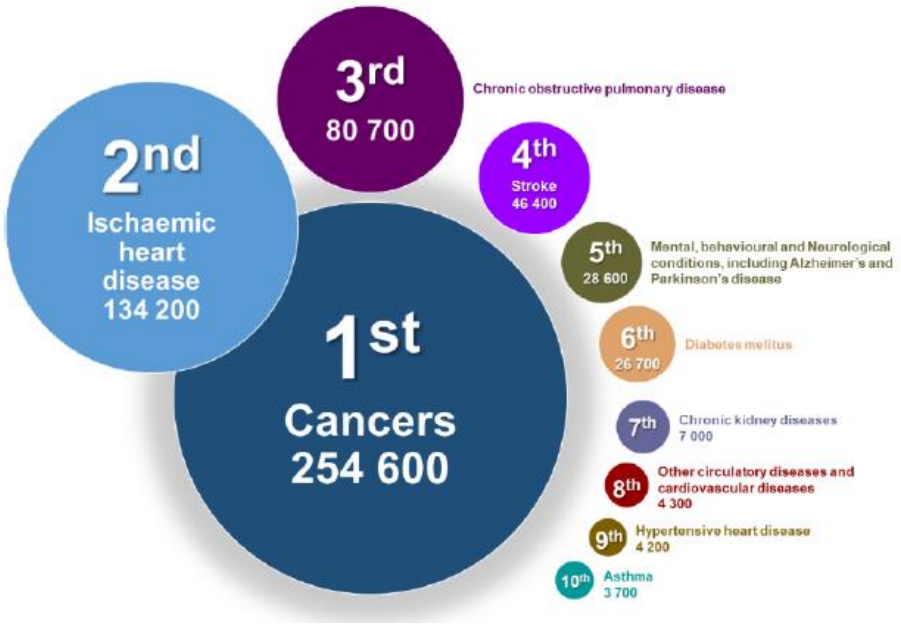


Figure 1: Top 10 non-communicable diseases causing deaths attributable to the environment (Source: EEA – Healthy environment, healthy lives, 2018 based on WHO (2016))

3. Recast of the Industrial Emissions Directive 2010/75/EU (integrated pollution prevention and control)

Please click on the hyperlinks *throughout for more information*

What:
The Industrial Emissions Directive (IED) is a recast of seven older EU Directives that were integrated into the IED and still exist within it:

- Reviewed EU IPPC Directive ; 2008/1/EC Integrated Pollution Prevention and Control
- 1999/13/EC Solvent Emissions Directive (SED)
- 2000/76/EC Incineration of Waste
- 78/176/EC Waste from the titanium dioxide industry plus two other direct related Directives
- 2001/80/EC large combustion plant Directive repealed with effect of 1 January 2016

Why:
In order to take further steps to reduce emissions from such installations and processes, the European Commission adopted its proposal for a Directive on industrial emissions (the IED). This was due to industrial production and processes affecting the overall pollution in Europe (for emissions of greenhouse gases and acidifying substances, wastewater emissions and waste).

When:
The IED entered into force 6 January 2011 and was implemented on 7 January 2013.

Scope:

- The purpose of the IED to prevent, reduce and as far as possible eliminate pollution from industrial activities in relation to the 'polluter pays' principle and the goal of pollution prevention, by focusing on an integrated approach to the prevention and control of emissions in air, water and soil, waste management, energy efficiency and accidents
- The IED is based on several principles, namely an integrated approach, best available techniques, flexibility, inspections and public participation

Effect on the Recreational Marine and Superyacht Industries:

- VOC thresholds, solvent emissions levels and the policy of "Solvent Averaging"
- Environmental permit requirements and the relation to Best Available Techniques (BAT), BREF (documents containing information on the emission levels associated with the best available techniques) shall be the reference for setting environment permit conditions.
- Emission levels of Substances, Priority Substances (PS's) and Priority Hazardous Substances (PHS's)

Review of BREF version 2006; "Surface Treatment of Metals and Plastics", Coatings of Ships and Yachts (chapter 11)

- Started in 2017
- Finalized in 2018 and coming in force January 2019.

What industrial processes are affected by this legislation?

- Processes related to the construction of hulls and superstructures of superyachts
  - Steel and aluminium constructions
  - Composites constructions
  - Wood constructions
- Processes related to installing machinery and equipment
- Complete paint application process including the preparation of the constructions
- Complete paint application process including the preparation of the constructions
- Removing and application of antifouling coatings
- Dock discipline

Additional Information:
The IED contains certain elements of flexibility by allowing the licensing authorities to set less strict emission limit values in specific cases. Such measures are only applicable where an assessment shows that the achievement of emission levels associated with BAT, as described in

the BAT conclusions. BREF would potentially lead to disproportionately higher costs compared to the environmental benefits due to:

- Geographical location or the local environmental conditions, or
- The technical characteristics of the installation

Measuring Volatile Organic Compounds (VOCs) with the ICOMIA Solvent Emissions Recording Tool

ICOMIA's Solvent Emissions Recording Tool has been developed to assist Marine Industry Associations and their members measure VOCs and check if a company and/or yard are in compliance with solvent emissions targets and levels. The yards and boatbuilders can use the tool for important production management information. The tool is free to download from the ICOMIA Website. Click here to download.

4. Paints Directive/Product Directive (PD) 2004/42/CE

Please click on the below hyperlinks *for more information*

What:
The purpose of the Paints Directive 2004/42/CE is to limit emissions of Volatile Organic Compounds (VOCs) due to the use of organic solvents in certain paints, varnishes and vehicle refinishing products.

Why:
The Paints Directive aims to prevent or reduce air pollution resulting from the contribution of VOC to the formation of ground-level ozone and secondary particulate matter. It complements measures to be taken at national level in order to ensure compliance with the VOC emission ceilings as set out in NEC Directive . The products it covers are paints and varnishes applied to buildings, their trim and fittings and associated structures for decorative, functional and protective reasons, as well as products for vehicles. In fact, the directive is focused on product-based limitations of VOCs for the purpose of offsite activities.

When:
Products falling under the Paints Directive's scope, which have been placed on the market after 1 January 2007, must have a VOC content not exceeding the limit values set out in its Annex II. The stricter (Phase II) VOC limit values have applied since 1 January 2010 for paints and varnishes used offsite.

Effect on the Recreational Marine and Superyacht Industries:
Thanks to lobbying by ICOMIA the recreational marine and superyacht industries are excluded from the Directive. The only remaining issue is wood coating – this is important for interior and furniture manufacturers/producers that use different paint products compared to the marine and superyacht industries.

What industrial processes are affected by this legislation?
Furniture and interior manufacturing processes outside the yard (meaning offsite).

Additional Information:
Although the marine, recreational marine and superyacht industry are outside of the Directive's scope, there are a few concerns related to the interiors of superyacht. Therefore, ICOMIA will continue lobbying for:

- Transferring the marine related wood coating processes of the Directive to the SED-IED
- New thresholds for wood coating within the Solvent Emissions Directive (SED) part of the Industrial Emissions Directive (IED)

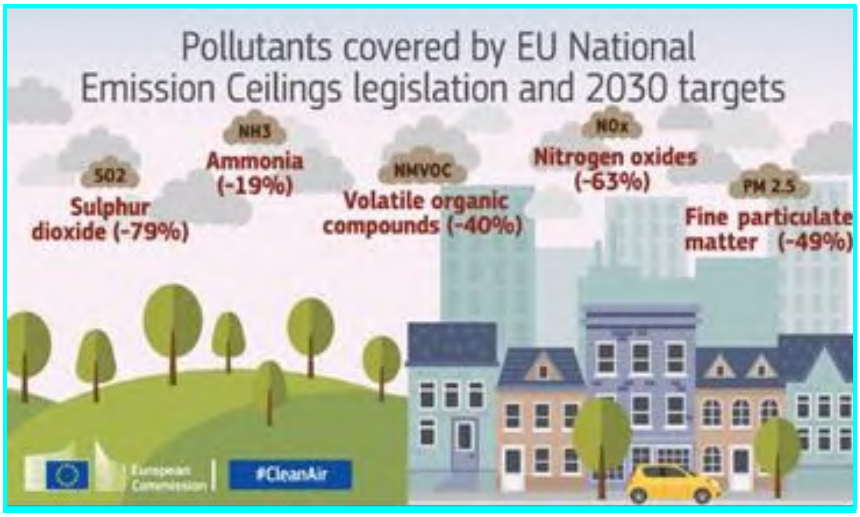
5. EU Directive on National Emission Ceilings (NEC) 2001/81/EC

Please click on the below hyperlinks *for more information*

What:
The NEC Directive sets upper limits for each member state for the total emissions of the four pollutants responsible for acidification, eutrophication and ground-level ozone pollution (sulphur dioxide, nitrogen oxides, volatile organic compounds (VOCs) and ammonia).

The upcoming revision of the National Emission Ceilings Directive 2001/81/EC (NECD) is part of the implementation of the Thematic Strategy on Air Pollution. The proposal to amend the NECD is still under preparation and should set emission ceilings to be respected by 2020 for the four already regulated substances and for the primary emissions as well. The revision builds upon the evaluation and review of the National Programmes 2002 and 2006, the work performed under the Clean Air for Europe Programme (CAFE), the Thematic Strategy on Air Pollution, and the Directive on ambient air quality and cleaner air for Europe and related new scientific and technical work.

The National Emission Ceilings Directive 2001/81/EC (NECD) is currently being reviewed as part of The Clean Air Policy Package. The proposal repeals and replaces the current Union regime on the annual capping of national emissions of air pollutants, as defined in Directive 2001/81/EC. By doing so, it ensures that the national emission ceilings (NECs) set in the current Directive 2001/81/EC for 2010 onwards for SO2, NOx, NMVOC and NH3 shall apply until 2020 and establishes new national emission reduction commitments ("reduction commitments") applicable from 2020 and 2030 for SO2, NOx, NMVOC, NH3, fine particulate matter (PM2,5) and methane (CH4).



However, it is largely left to the Member States to decide which measures – on top of community legislation for specific source categories - to take in order to comply.

The revision also takes into account (proposals for) the Community legislation for specific source categories, like the revision of the IPPC-directive and the decision of the European Council of March 2007 to reduce the greenhouse gas emissions by 20% and to have 20% renewables by 2020.

However, it is largely left to the Member States to decide which measures – on top of community legislation for specific source categories - to take in order to comply.

Parallel to the development of the EU NEC Directive, the EU Member States alongside the Central and Eastern European countries, the United States and Canada have negotiated the "multi-pollutant" protocol under the convention on long-range trans-boundary air pollution (the so-called Gothenburg protocol, agreed in November 1999). The emission ceilings in the protocol are equal or less ambitious than those in the NEC Directive.

Why:
The Clean Air for Europe Programme (CAFE) policy was launched with the aim to develop long-term, strategic and integrated policy advice to protect against significant negative effects of air pollution on human health and the environment.

When:
The NEC Directive has been amended as part of the accession of new EU Member States.
A consolidated NEC includes the entire community as of 1 January 2007.

Scope:
The NEC Directive sets upper limits for each member state for the total emissions of the four pollutants responsible for acidification, eutrophication and ground-level ozone pollution - sulphur dioxide, nitrogen oxides, volatile organic compounds (VOCs) and ammonia - but leaves it largely to the Member States to decide which measures – on top of community legislation for specific source categories - to take in order to comply.

Effect on the Recreational Marine and Superyacht Industries:
Please be aware that the NEC is set up parallel to regulations in the USA, Canada and other European Countries (Gothenburg protocol).

What industrial processes are affected by this legislation?

- Paint application
- All processes related to the use of VOC containing products
- Installation of Machinery
- Engine related emissions

6. Biocidal Product Directive (BPD) 98/8/EC and the Review of BPD into Biocidal Product Regulation (BPR) REGULATION (EU) No 528/2012

Please click on the below hyperlinks *for more information*

What:
Biocidal Products Directive 98/8/EC is a Directive focused on Biocides which are chemicals used to suppress organisms. Biocidal and industrial chemicals are for example used in antifouling paints for ships and material preservatives. Directive 98/8/EC set out a two-step process of approving biocidal products:

1. Active substances which are allowed to be used in biocidal products are included in a Union list
2. Biocidal products containing active substances from the Union list are authorised at Member State level prior to their placing on the market.

Why:
Biocides are chemicals used to suppress organisms that are harmful to human or animal health, or that cause damage to natural or manufactured materials. These harmful organisms include pests and germs (i.e. moulds and bacteria). Examples of biocidal products are insect repellents, disinfectants and industrial chemicals like antifouling paints for ships and material preservatives.

When:
The new Regulation entered into force on 1 September 2013, it repeals Directive 98/8/EC

Scope:
The objective of the new Regulation is to improve the functioning of the internal market in biocidal products whilst ensuring a high level of environmental and human health protection. The new Regulation will also remedy a number of weaknesses that were identified during the 11 years of implementation of the current Directive 98/8/EC. The new text also simplifies and streamlines the requirements for approving active substances and authorizing products.

Effect on the Recreational Marine and Superyacht Industries:
Biocidal - industrial chemicals are used in our industry for antifouling paints for ships and material preservatives. When particular substances are banned it will affect the use, application and protection against fouling and material preservatives.

What industrial processes are affected by this legislation?
It will affect the related AF application and material preservation processes at the superyacht yards, boatbuilders, superyacht refit yards, R&M yards and the DIY activities at the marinas and winter storages.

Additional Information:
The Directive, therefore, foresaw that all biocide products would be authorised at the national level. In order to obtain access to the wider EU market, companies had to apply for mutual recognition of the national authorisations.

For that reason the users (marine industry, applicators and yards) of these products where confronted with the legal requirements which were implemented at National level and not allowed used products purchased in another Member State.

The new Regulation maintains the same rules for both the authorisation and the mutual recognition for the majority of biocidal products. However, at the same time, the new Regulation foresees that certain biocidal products will be eligible for a centralised authorisation, which would be of interest for products to be placed on the entire EU market.

Update 2015 - 2017:
Companies that have not already submitted their own dossier on an active substance under the BPD or the BPR can either submit a dossier, a letter of access, or if all data protection periods have expired, a reference to an existing dossier to the European Chemicals Agency (ECHA). This information must comply with the data requirements for active substances of the BPR or the BPD.

Applications for inclusion in the list of active substances suppliers (Article 95 list) can only be made by a person established within the EU. The definitions of substance supplier and product supplier, as set out in Article 95(1), second sub-paragraph, specify that those entities must be established in the EU. However, non-EU companies can be represented by an EU representative, for the purpose of Article 95, and be indicated on the list next to their EU representative.

In addition to manufacturers and importers, the amendment of the BPR introduced by Regulation (EU) No 334/2014 on 11 March 2014 also allows product suppliers (e.g. formulators) to apply to be included in the Article 95 list. The amendment requires that the list also specifies the product type (PT) for which an application has been made.

ECHA will publish and regularly update the Article 95 list to include those entities who have made a successful submission of the required information (see link to the Article 95 list).

From 1 September 2015, a biocidal product consisting of, containing, or generating a relevant substance, cannot be made available on the EU market if the substance supplier or product supplier is not included in the list for the product type to which the product belongs.

7. EU Regulation no. 166/2006/EC; the Establishment of a European Pollutant Release and Transfer Register (E-PRTR)

Please click on the below hyperlinks *for more information.*

What:
The register contains information on releases of pollutants to air, water and land, as well as off-site transfers of pollutants present in waste-water and waste. The register covers 91 pollutants, including greenhouse gases, other gases, heavy metals, pesticides, chlorinated organic substances and other inorganic substances.

Why:
This Regulation sets up a European Pollutant Release and Transfer Register (PRTR) in the form of a publicly accessible electronic database.

This register is available to the public free of charge on the internet. The information it contains can be searched using various search criteria (type of pollutant, geographical location, affected environment, source facility, etc.)

Releases are reported when the level of the emissions exceeds a certain threshold and results in one of the 65 activities listed in the annex of the PRTR. The majority of these activities are also regulated under the Directive on industrial emissions and comprise, in particular, the establishments covered by the following sectors: energy production, mineral industry, chemical industry, waste and wastewater management, and paper and wood production and processing, including those from paint application.

When:
This database was signed by the Community in May 2003, entered into force since 2006 and was fully implemented in EU 2009. It meets the requirements of the United Nations Economic Commission for Europe (UN-ECE) Protocol on Pollutant Release and Transfer Registers.

Effect on the Recreational Marine and Superyacht Industries:
Providing they are competent, national authorities will require data on an annual basis and will use as well relevant data provided by industry.

The received data will be available for public and industry on the E-PRTR website.

What industrial processes are affected by this legislation?
This Regulation sets up a European Pollutant Release and Transfer Register (PRTR) in the form of a publicly accessible electronic database and will be requiting data from the competent Authorities which can be used by industry and public.

8. Waste Framework Directive 2008/98/EC

Please click on the below hyperlinks *for more information*

What:
Directive 2008/98/EC on waste (Waste Framework Directive) sets the basic concepts and definitions related to waste management, such as definitions of waste, recycling, recovery. It explains when waste ceases to be waste and becomes a secondary raw material (so called end-of-waste criteria), and how to distinguish between waste and by-products. The Directive introduces the 'polluter pays principle' and the 'extended producer responsibility'.

Why:
The Directive requires that waste be managed without endangering human health and harming the environment and in particular without risk to water, air, soil, plants or animals, without causing a nuisance through noise or odours and without adversely affecting the countryside or places of special interest. Waste legislation and policy of the EU Member States shall apply as a priority order the following waste management hierarchy:

When:
The revised Waste Framework Directive (Directive 2008/98/EC on waste) was adopted by the Council on 20 December 2008 and published in the Official Journal of the European Union on 22 November 2008. It entered into force on 12 December 2008. The deadline for the transposition of the revised Waste Framework Directive into national legislation of the Member States passed on 12 December 2010. Directives 75/439/EEC on the disposal of waste oils, Directive 91/689/EEC on hazardous waste, and Directive 2006/12/EC on waste have been repealed with effect of 12 December 2010.

The Waste Framework Directive was updated with rules for the calculation, verification and reporting of data on waste in accordance with Directive 2008/98/EC of the European Parliament and of the Council and repealing Commission Implementing Decision C(2012) 2384

Scope:
The Directive introduces the 'polluter pays principle' and the 'extended producer responsibility'. It incorporates provisions on hazardous waste and waste oils and includes two new recycling and recovery targets to be achieved by 2020, namely 50% preparing for reuse and recycling of certain waste materials from households and other origins similar to households and 70% preparing for reuse, recycling and other recovery of construction and demolition waste. The Directive requires that Member States adopt waste management plans and waste prevention programmes.

Effect on the Recreational Marine and Superyacht Industries:

It will affect all sectors within the recreational marine, marine and superyacht industry. The introduction of waste management system will be needed. But mostly it will affect all productions by means of a systematic integration of environmental aspects into product design (with the aim to improve the environmental performance of the product throughout its whole life cycle).

What industrial processes are affected by this legislation?

- All processes within new build yards and refit yards which produces waste
- All processes within marinas which produces waste
- All processes within marine equipment and machinery manufacturers which produces waste
- All processes within charter companies and sailing schools which produces waste

Additional Information:

The EU Waste Directive 2008/98/EC gives first priority to prevention in waste legislation. Prevention is defined as measures that reduce the content of harmful substances in materials and products - be aware that there is clear link between the Waste Framework Directive and the RoH and WEEE Directive 2011/65/EU as the limitation of used materials and substances within the materials for EEE[1] devices and equipment.

[1] EEE - Electrical and Electronically Equipment

10. EU - SCIP Regulation (Substances of Concern In articles as such or in complex objects, Products (part of the EU Waste Framework Directive)

Please click on the below hyperlinks for more information

What:
SCIP is the database for information on Substances of Concern In articles as such or in complex objects (Products) established under the Waste Framework Directive (WFD).

Companies supplying articles containing substances of very high concern (SVHCs) on the Candidate List in a concentration above 0.1% weight by weight (w/w) on the EU market have to submit information on these articles to ECHA, as from 5 January 2021. The SCIP database ensures that the information on articles containing Candidate List substances is available throughout the whole lifecycle of products and materials, including at the waste stage. The information in the database is then made available to waste operators and consumers.

Additional information:
You need to use a IUCLID reference substance entity to provide information on Candidate List substances in your SCIP notifications. ECHA publishes the Candidate List reference substances package to support SCIP notifiers.

A reference substance is an entity in IUCLID that is used to identify a substance, in such a way that it may be re-used.

You can create a reference substance in IUCLID, but we recommend you, as a SCIP notification submitter, to use the Candidate List reference substances package for your SCIP notifications and to import it into your own IUCLID instances. The material provided below will be always available in two compatible IUCLID versions (current and previous) and made available for you to download and align the reference substance datasets.

The available Candidate List reference substances package for SCIP notifications is aligned with each inclusion of additional substances of very high concern (SVHCs) to the official Candidate List.

11. New Circular Economy Action Plan For a cleaner and more competitive Europe

Please click on the below hyperlinks for more information

What:
The European Commission adopted the new circular economy action plan (CEAP) in March 2020. It is one of the main building blocks of the European Green Deal, Europe's new agenda for sustainable growth. The EU's transition to a circular economy will reduce pressure on natural resources and will create sustainable growth and jobs. It is also a prerequisite to achieve the EU's 2050 climate neutrality target and to halt biodiversity loss.

The new action plan announces initiatives along the entire life cycle of products. It targets how products are designed, promotes circular economy processes, encourages sustainable consumption, and aims to ensure that waste is prevented and the resources used are kept in the EU economy for as long as possible.

Why
As half of total greenhouse gas emissions and more than 90% of biodiversity loss and water stress come from resource extraction and processing, the European Green Deal4 launched a concerted strategy for a climate-neutral, resource-efficient and competitive economy. Scaling up the circular economy from front-runners to the mainstream economic players will make a decisive contribution to achieving climate neutrality by 2050 and decoupling economic growth from resource use, while ensuring the long-term competitiveness of the EU and leaving no one behind.

To fulfil this ambition, the EU needs to accelerate the transition towards a regenerative growth model that gives back to the planet more than it takes, advance towards keeping its resource consumption within planetary boundaries, and therefore strive to reduce its consumption footprint and double its circular material use rate in the coming decade.

When
The proposal was launched March 2020, and will come in force in July 2021.

What industrial processes are affected by this legislation?
All parts of Marine Industry producing products.

There will be extra focus from this initiative on designers:
Since 80% of products' environmental impacts are determined at the design
the linear pattern of "take-make-use-dispose" does not provide producers
with sufficient incentives to make their products more circular. In the current situation products potentially cannot be easily reused, repaired or recycled, and some are made for
single use only.

Additional information:
Commission will consider establishing sustainability principles and other appropriate ways to regulate the following aspects:

- improving product durability, reusability, upgradability and reparability,
- addressing the presence of hazardous chemicals in products, and increasing their energy and resource efficiency;
- increasing recycled content in products, while ensuring their performance and safety;
- enabling remanufacturing and high-quality recycling;
    - reducing carbon and environmental footprints;
    - restricting single-use and countering premature obsolescence;
    - introducing a ban on the destruction of unsold durable goods;

- incentivising product-as-a-service or other models where producers keep the
- ownership of the product or the responsibility for its performance throughout its
- lifecycle;
- mobilising the potential of digitalisation of product information, including
- solutions such as digital passports, tagging and watermarks;
- rewarding products based on their different sustainability performance,
- including by linking high performance levels to incentives.

Additional information related to Council Decisions 12756/20

A recovery advancing the transition towards a more dynamic, resilient and competitive European industry Council conclusions (16 November 2020):

The Council of the European Union

Recalling the joint statement by Ministers in June 2020, the Council Conclusions of November 20182 and May 20193 and Council Conclusions on Circular Economy of 4 October 2019, as well as the European Council conclusions of March 20194 and October 20205, which stressed the important role of industry in the just, green and digital transformation processes and its key importance for Europe's prosperity and competitiveness; and RECALLING the Commission's Communications on:

- 'The European Green Deal'; 'the 2030 Climate target plan'; the 'new Circular Economy
- Action Plan'; the 'EU Biodiversity Strategy'; the updated Bioeconomy Strategy; the 'hydrogen strategy'; the 'EU Strategy for Energy System Integration'
- 'The European Digital Strategy '; the 'European strategy for data'; the 'White Paper on Artificial Intelligence'

12. EU Water Framework Directive (WFD) 2000/60/EC

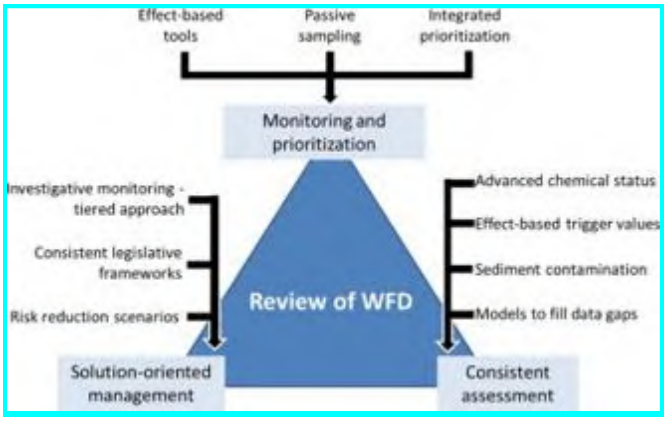
Please click on the below hyperlinks *for more information*

What:
The WFD is a Framework Directive for the protection of inland surface waters (rivers and lakes), transitional waters (estuaries), coastal waters and groundwater. It will ensure that all aquatic ecosystems will meet 'good status' by 2015 by implementing river basin districts and individual management plans. Industry within the EU can find the WFD links in their own language on the EU webpage.

The WFD is a combination of several other Directives:

- Directive 2008/105/EC on Environmental Quality Standards
- Directive Water pollution by discharges of certain dangerous substances
- Directive on the assessment and management of flood risks
- The Drinking Water Directive
- Urban Waste Water Directive
    - For industry there is also a relation between the priority substances and the IED (2010/75/EU)
- WFD is also integrating the EU Water policy of Water Scarcity & Droughts , the Adapting of the management of Water and Environmental Resources in response to Global Climate Change objectives of the Marine Strategy Directive (MSFD) 2008/56/EC

The WFD includes recommendations for more efficient assessment and management of chemical contamination in European water resources. In support of the upcoming review in 2019 of the WFD, the research project SOLUTIONS and the European monitoring network NORMAN have produced this paper containing 10 recommendations underpinning the practical implementation of the WFD with regard to chemical pollution.



Why:
To protect inland surface waters (rivers and lakes), transitional waters (estuaries), coastal waters and groundwater against pollution. The new European Water Policy will get polluted waters clean again, and ensure clean waters are kept clean. In achieving these objectives, the roles of citizens and citizens groups and industry will be crucial. This is why a new European Water Policy has to get citizens more involved.

When:
European Water Policy has undergone a thorough restructuring process, and a new Water Framework Directive was adopted in 2000. The Directive will be the operational tool, setting the objectives for water protection for the future, and it will ensure that all aquatic ecosystems will meet 'good status' by 2015. WFD implementation will be reviewed on a six-yearly basis and there are two further WFD planning cycles – up to 2021 and 2027.

Scope:
Expanding the scope of water protection to all inland and coastal waters, surface waters and groundwater by:

- Achieving "good status" for all waters by a set deadline
- Water management based on river basins
- "Combined approach" of emission limit values and quality standards
- Getting the prices right
- Getting the citizens involved more closely
- Streamlining legislation

Effect on the Recreational Marine and Superyacht Industries:
The WFD issues for our industry are mostly related to waste water and process water containing priority substances like PAHs, TBT, Mercury, Copper and Zinc coming from point sources, diffuse sources or losses (after dredging). Therefore, more attention from industry will be needed for the daughter directives of the WFD and the relation to the IED Directive.

What industrial processes are affected by this legislation?

- Dredging
- All processes which contain Process & Waste Water within marinas, boatbuilders, shipyards (superyacht builders)

Additional Information:

- Special attention for the connection between the relation of the Directive 2008/105/EC on Environmental Quality Standards and the IED. Both Directives are focused on reduction and or facing out of priority hazardous substances. Industry must be alert due these measures will be become a part of their Environmental permit and can be crucial for the processes in their company.

13. Maritime Strategy Framework Directive (MSFD) 2008/56/EC

Please click on the below hyperlinks *for more information*

For the refit of the MSFD follow the link and see below:

What:
The Maritime Strategy Framework Directive (MSFD) aims to achieve Good Environmental Status (GES) of the EU's marine waters and to protect the resource base upon which marine-related economic and social activities depend. It is the first EU legislative instrument related to the protection of marine biodiversity, as it contains the explicit regulatory objective that "biodiversity is maintained by 2020", as the cornerstone for achieving GES.

The goal of the MSFD is in line with the objectives of the Water Framework Directive WFD (2000/60/EC) which requires surface freshwater and ground water bodies - such as lakes, streams, rivers, estuaries, and coastal waters - to be ecologically sound by 2015 and that the first review of the River Basin Management Plans should take place in 2020.

Developing a Maritime Strategy for the Atlantic Ocean Area (2017)
The Atlantic Ocean, which marks the western boundary of the EU, is the second largest of the world's oceans. Developing a Maritime Strategy for the Atlantic Ocean Areas proposes a coherent and balanced approach that is consistent with the EU 2020 agenda and its flagship initiatives that promotes territorial cohesion and that takes into account the international dimension.

Ocean Governance: the EU contribution to responsible oceans stewardship will review Maritime Strategy for the Atlantic Ocean Area 2017.

Review of the MSFD:
The review will build on the implementation report adopted in June 2020 that highlighted a number of elements that need to be addressed. The MSFD evaluation will look in more depth at how the MSFD has performed so far and will assess the relevance of this instrument in the context of the European Green Deal, especially in relation to the new Biodiversity Strategy and the forthcoming Zero Pollution Action Plan and Climate Adaptation Strategy. Building on the evaluation, an impact assessment is planned to elaborate different policy or legislative options and their potential impacts.

Another target is Mission Board on Healthy Oceans, Seas, Coastal and Inland Waters proposes a Mission Starfish 2030: Restore our Ocean and Waters by 2030

Why:
The unsustainable use of our seas threatens the fragile balance of marine ecosystems. Human activities that depend on the sea, such as fishing and tourism, suffer from damaged ecosystems and use-related competition will become increasingly serious. The Marine Directive constitutes the vital environmental component of the Union's future maritime policy, designed to achieve the full economic potential of oceans and seas in harmony with the marine environment.

The Marine Strategy Framework Directive establishes European Marine Regions on the basis of geographical and environmental criteria. Each Member State - cooperating with other Member States and non-EU countries within a marine region - are required to develop strategies for their marine waters.

When:
The Marine Directive came in to force in June 2008 and aims to achieve Good Environmental Status (GES) of the EU's marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend.

Scope:
The Marine Directive aims to achieve Good Environmental Status (GES) of the EU's marine waters and to protect the resource base upon which marine-related economic and social activities depend.

In addition, GES means that:

- Ecosystems, including their hydro-morphological (i.e. the structure and evolution of the water resources), physical and chemical conditions, are fully functioning and resilient to human-induced environmental change;
- The decline of biodiversity caused by human activities is prevented and biodiversity is protected;
- Human activities introducing substances and energy into the marine environment do not cause pollution effects. Noise from human activities is compatible with the marine environment and its ecosystems.

Therefore GES will be determined on the assessments of the 11 descriptors in coordination and relation to Marine Spatial Planning, as part of the Coastal Management:

1. Biodiversity is maintained
2. Non-indigenous Species do not adversely alter the ecosystem
3. The population Commercial Fish and shellfish is healthy
4. Elements of Food Webs ensure long-term abundance and reproduction
5. Eutrophication is minimised
6. Sea-floor Integrity ensures functioning of the ecosystem
7. Permanent alteration of Hydrographical Conditions does not adversely affect the ecosystem
8. Concentrations of Contaminants give no effects (OSPAR report)
9. Contaminants in Seafood are below safe levels
10. Marine Litter does not cause harm
11. Introduction of Energy incl. Underwater Noise does not adversely affect the ecosystem

Effect on the Recreational Marine and Superyacht Industries:
The method of assessments and the targets within the programme of Good Environmental Status (GES) will have potential effects on the activities and processes within marine industries:

- Attention to the assessments within the good environmental status programme
- Overlap between WFD and the MSFD, particular concern are the coastal areas and the effect on the Priority (Hazardous) Substances PHSs
- Invasive species
- Facilities within coastal marinas
- Facilities of coastal yards
- Noise and underwater noise (see international overview noise policy and measures)
- Aspects of diffuse sources (emissions) coming from several processes (see also WFD)

What industrial processes are affected by this legislation?

- New build of facilities of marine industry at coastal areas
- Port receptions at marinas
- Dredging
- Processes and or actions which cause underwater noise
- Application of AF products
- Waste water treatment and cleaning hulls with high pressure water blasting

Additional Information:
Special attention in required for the relation of the Water Framework Directive (WFD), Directive 2008/105/EC on Environmental Quality Standards , the IED and the EU policy regarding Marine Spatial Planning, as part of the Coastal Management . These Directives are focused on reduction

and or facing out of priority hazardous substances, spatial planning, environmental permit and the allowed activities of Marine Industry.

The MSFD requires Member States to develop national marine strategies in order to achieve, or maintain where it exists, 'good environmental status'. Such status should have been achieved by 2020. The marine strategies comprise regular assessments of the marine environment, setting objectives and targets, establishing monitoring programmes and putting in place measures to improve the state of marine waters. All these actions must be done in close coordination with neighbouring countries at regional sea level

Mission Starfish 2030 restore our ocean and waters; Restore our Ocean and Waters by 2030. Inspired by the shape of the starfish, the Mission has five overarching objectives for 2030: (i) Filling the knowledge and emotional gap, (ii) regenerating marine and freshwater ecosystems, (iii) zero pollution, (iv) decarbonising our ocean, and waters (v) revamping governance. These five objectives are mutually supportive and taken together, the Mission Starfish 2030 will enable the restoration of the water cycle as a whole. For each of the five objectives, a set of ambitious, concrete and measurable targets has been defined. They specifically address the actors, activities, tools and systems that all need to be called upon to reach each objective. These targets are considered the indispensable components of a holistic approach to systemic change.

14. Regulation (EC) No 1907/2006; Registration, Evaluation, Authorization and Restriction of Chemical Substances Regulation (REACH)

Please click on the hyperlinks *throughout for more information*

What:
REACH is an EU regulation on 'Registration, Evaluation, Authorisation and Restriction of Chemicals'. It was adopted in 2007 to improve the protection of human health and the environment from the risks that can be posed by chemical whilst enhancing the competitiveness of the EU chemicals industry.

Why:
The regulation has an impact on most companies across the EU. It improves the protection of human health, enhances industry competitiveness, promotes alternative methods for the hazard assessment of substances in order to reduce the number of tests on animals and, in principle, applies to all chemical substances - not only those used in industrial processes but also in our day-to-day lives (for example in cleaning products, paints as well as in articles such as clothes, furniture and electrical appliances).

The authorisation procedure aims to insure the risks from Substances of Very High Concern (SVHC) are properly controlled and are progressively replaced by suitable alternatives whilst ensuring the EU internal market functions well.

When:
There is a special transitional regime for substances which, under certain conditions, were already manufactured or placed on the market before REACH's entry into force in 2008.

The deadline for: The registration of substances manufactured or imported at 1000 tonnes or more per year; carcinogenic; mutagenic or toxic to reproduction substances above 1 tonne per year; and substances dangerous to aquatic organisms or the environment above 100 tonnes per year was 30 November 2010 – the deadline for other substances and the downstream users are between 31 May 2013 and 31 May 2018.

Effect on the Recreational Marine and Superyacht Industries:
REACH establishes procedures for collecting and assessing information on the properties and hazards of substances.

Companies need to register their substances and to do this they need to work together with other companies who are registering the same substance.

The European Chemicals Agency (ECHA) receives and evaluates individual registrations for their compliance and the EU Member States evaluate selected substances to clarify initial concerns for human health or for the environment.

Authorities and ECHA's scientific committees assess whether the risks of substances can be managed. Authorities can ban hazardous substances if their risks are unmanageable. They can also decide to restrict a use or make it subject to a prior authorisation.

What industrial processes are affected by this legislation?
All processes related to the import or production of chemical products. Companies have the responsibility of collecting information on the properties and the uses of substances that they manufacture or import at or above one tonne per year.

Additional Information:

Companies have the responsibility of collecting information on the properties and the uses of substances that they manufacture or import at or above one tonne per year. They also have to make an assessment of the hazards and potential risks presented by the substance.

This information is communicated to ECHA through a registration dossier containing the hazard information and, where relevant, an assessment of the risks that the use of the substance may pose and how these risks should be controlled. Registration applies to substances on their own, substances in mixtures and certain cases of substances in articles. Chemical substances that are already regulated by other legislations such as medicines or radioactive substances are partially or completely exempted from REACH requirements.

Registration is based on the 'one substance, one registration' principle. This means that manufacturers and importers of the same substance have the obligation to submit their registration jointly. The analytical and spectral information provided should be consistent and sufficient to confirm the substance identity. For substance registration a fee is usually charged.

The UN Global Harmonised System (GHS) of classification and labelling of chemicals is a system that defines and classifies the hazards of chemical products and communicates health and safety information on labels and material Safety Data Sheets (SDS).

An international team of hazard communication experts are involved in the development of the GHS classification. The goal is to ensure the same set of rules for classifying hazards as well as the same format and content for labels and SDS will be adopted and used globally.

More information on chemical product classification, labelling and Safety Data Sheets can be found in Section F.

15. Rules For Timber Certification to Halt Deforestation, Regulation EU - 995/2010 (20 October 2010)

Please click on the below hyperlinks *for more information*

What:
Also known as the (Illegal) Timber Regulation, the European Parliament's Regulation (EU) No 995/2010 (20 October 2010) lays down the obligations of operators who place timber and timber products on the market and counters the trade in illegally harvested timber and timber products through three key obligations:

1. It prohibits the placing on the EU market for the first time of illegally harvested timber and products derived from such timber
2. It requires EU traders who place timber products on the EU market for the first time to exercise 'due diligence'
3. Keep records of their suppliers and customers. To facilitate the traceability of timber products economic operators in this part of the supply chain (referred to as traders in the regulation)

Why:
The purpose of regulation is to ensure the uniform implementation of the EU Timber Regulation. The Forest Law Enforcement Governance and Trade (FLEGT) Regulation Action Plan commits to examine domestic legislation in EU Member States to analyse whether it could allow action against imports of illegal timber and to examine options for additional legislation.

When:
The application of the Regulation started from 3 March 2013 to allow sufficient time for EU operators, timber producers and Member States, as well as trading partners, to prepare. During this period the Commission will adopt more detailed rules.

Effect on the Recreational Marine and Superyacht Industries:
The Regulation covers a broad range of timber products including solid wood products, flooring, plywood, pulp and paper. Not included are recycled products, as well as printed papers such as books, magazines and newspapers. The product scope can be amended if necessary.
The Regulation applies to both imported and domestically produced timber and timber products.

What industrial processes are affected by this legislation?
All processes of related to the use of Timber as described in the scope

Additional Information:
The Commission adopted Commission delegated Regulation of 23 February 2012 on the procedural rules for the recognition and withdrawal of recognition of monitoring organisations, as provided for in Regulation (EU) No 995/2010 of the European Parliament and of the Council, laying down the obligations of operators who place timber and timber products on the market.

The Commission adopted an implementing regulation on the risk assessment and risk mitigation measures which are part of the 'due diligence system' as well as on the frequency and nature of the checks undertaken by Member States' competent authorities to monitor organizations and ensure they comply with the requirements of the Regulation.

16. Restriction of Hazardous Substances in Electrical and Electronic Equipment Directive 2011/65/11 - EU RoHS recast

Please click on the hyperlinks *throughout for more information*

Amending EU RoHS 2011/65/11
This Commission Delegated Directive amends, for the purpose of adapting to technical and scientific progress, Annex III to Directive 2011/65/EU of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment (the RoHS Directive). The amendment concerns an exemption for specified applications containing mercury in single capped (compact) fluorescent lamps for general lighting purposes < 30 W with a lifetime equal to or above 20 000 h.

What:
The EU legislation restricting the use of hazardous substances in electrical and electronic equipment (Directive 2002/95/EC) and the promotion of collection and recycling of such equipment (Directive 2002/96/EC). It has been in force since February 2003 and provides collection schemes where consumers return their used e-waste[2] free of charge.

A review resulted in the new Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Why:
The objective of these collection schemes is to increase the recycling and/or reuse of such products. It also requires heavy metals such as lead, mercury, cadmium and hexavalent chromium and flame retardants such as poly-brominated biphenyls (PBB) and poly-brominated diphenyl ethers (PBDE) are substituted by safer alternatives.

When:
The RoHS Directive 2011/65/EU (RoHS 2) entered into force on 21 July 2011 and requires Member States to transpose the provisions into their respective national laws by 2 January 2013.

Effect on the Recreational Marine and Superyacht Industries:
An effect could be an increase of the facilities and obligations for producers/manufacturers of marine equipment, machinery and the electronically/electrical parts of marine engines as well waste facilities within our industry and marinas.

What industrial processes are affected by this legislation?
Producers/manufacturers of marine equipment, machinery and the electronically/electrical parts of marine engines as well.

Additional Information:
To avoid of misunderstanding regarding the scope and who is responsible, additional information can be found on the FAQ sheet of the European Commission.

[2] e-waste = electronic waste

17. Rules For Timber Certification to Halt Deforestation, Regulation EU - 995/2010 (20 October 2010)

Please click on the below hyperlinks *for more information*

What:
Also known as the (Illegal) Timber Regulation, the European Parliament's Regulation (EU) No 995/2010 (20 October 2010) lays down the obligations of operators who place timber and timber products on the market and counters the trade in illegally harvested timber and timber products through three key obligations:

4. It prohibits the placing on the EU market for the first time of illegally harvested timber and products derived from such timber;
5. It requires EU traders who place timber products on the EU market for the first time to exercise 'due diligence';
6. Keep records of their suppliers and customers. To facilitate the traceability of timber products economic operators in this part of the supply chain (referred to as traders in the regulation).

Why:
The purpose of regulation is to ensure the uniform implementation of the EU Timber Regulation. The Forest Law Enforcement Governance and Trade (FLEGT) Regulation Action Plan commits to examine domestic legislation in EU Member States to analyse whether it could allow action against imports of illegal timber and to examine options for additional legislation.

When:
The application of the Regulation started from 3 March 2013 to allow sufficient time for EU operators, timber producers and Member States, as well as trading partners, to prepare. During this period the Commission will adopt more detailed rules.

Effect on the Recreational Marine and Superyacht Industries:
The Regulation covers a broad range of timber products including solid wood products, flooring, plywood, pulp and paper. Not included are recycled products, as well as printed papers such as books, magazines and newspapers. The product scope can be amended if necessary.
The Regulation applies to both imported and domestically produced timber and timber products.

Additional Information:
The Commission adopted Commission delegated Regulation of 23 February 2012 on the procedural rules for the recognition and withdrawal of recognition of monitoring organisations, as provided for in Regulation (EU) No 995/2010 of the European Parliament and of the Council, laying down the obligations of operators who place timber and timber products on the market.

The Commission adopted an implementing regulation on the risk assessment and risk mitigation measures which are part of the 'due diligence system' as well as on the frequency and nature of the checks undertaken by Member States' competent authorities to monitor organizations and ensure they comply with the requirements of the Regulation.

For more information on the Lacey act see Section C.7

18. Regulation (EU) No 1257/2013 of the European Parliament and of the Council on Ship Recycling

Please click on the hyperlinks *throughout for more information*

What:
Regulation 1257/2013 sets out a number of requirements for European ships, European ship owners and ship recycling facilities willing to recycle European ships - and their relevant competent authorities or administrations. It also requires the Commission to adopt a number of acts implementing the Regulation (in particular the European List of ship recycling facilities authorized to recycle ships flying the Union flag).

Why:
The objective of the Regulation is to reduce the negative impacts linked to the recycling of EU-flagged ships, especially in South Asia, without creating unnecessary economic burdens. It brings into force an early implementation of the requirements of the 2009 Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships, therefore contributing to its global entry into force. There is also a link to international health and safety rules set by the International Labour Organization (ILO) at the joint ILO – IMO Basel Convention regarding ship scrapping.

When:
The EU Ship Recycling Regulation was published in the Official Journal of the European Union on Tuesday 10 December 2013 - entering into force later that month; while its different articles will apply at different stages, all detailed in article 32 of the Regulation. See the official text of the Regulation 1257/2013.

Effect on the Recreational Marine and Superyacht Industries:
According to the new rules, the installation or use of certain hazardous materials on ships will be prohibited or restricted. These hazardous materials include asbestos, ozone-depleting substances; Polychlorinated Biphenyls (PCBs), perfluoro octane sulfonate (PFOS) PCBs, PFOS, and antifouling compounds and systems. Each new European ship (or a ship flying a flag of the third country calling at EU port or anchorage) will be required to have on-board an inventory of hazardous materials verified by the relevant administration or authority and specifying the location and approximate quantities of those materials.

Prior to any recycling of a European ship, a ship recycling plan will have to be developed by the operator of the ship recycling facility based on the information provided by the ship owner. The plan will contain information about the ship essential for its safe and sound treatment and thus will facilitate the work of the ship recycling facility. European ships will undergo surveys verifying compliance of the inventory of hazardous materials with the requirements of the Regulation.

What industrial processes are affected by this legislation?

- Design
- Construction
- Processes related to installing nautical equipment and machinery
- Administrative processes around the equipment and used materials (material declaration forms) and inventory of hazardous materials
- Classification process

Additional Information:
In order to be included in the European List, any ship recycling facility irrespective of its location will have to comply with a number of requirements. The Commission will assess the applications received from the ship recycling facilities located in third countries. For facilities located in the EU Member States, this assessment will be done by national authorities and its result will be provided to the Commission. The European List will be published in the Official Journal of the European Union and on the website of the Commission at the latest 36-months after the date of entry into force of this Regulation (i.e. at the latest by the end 2016). The Commission will be able to regularly update the European List in order to include or remove a ship recycling facility from the List.

IMO:
As noted there is a direct link between the EU Regulation and the 2009 Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships.

USA:
The US Environmental Protection Agency (EPA) jointly develop guidance recommending environmental best management practices (BMPs) to be used in the preparation of dismantling vessels. It also responds to provide national environmentally based best management practices for the preparation of dismantling vessels.

ISO
ISO developed on request of IMO a set of Management Standards related to the ship dismantling; the ISO 30000 series (3000 up to 30008).

19. Directive 2014/89/EU: Establishing a Framework for Maritime Spatial Planning

Please click on the hyperlinks *throughout for more information*

What:
Maritime Spatial Planning (MSP) is a public process for analysing and planning the spatial and temporal distribution of human activities in sea areas to achieve economic, environmental and social objectives. The ultimate aim of maritime spatial planning is to draw up plans to identify the utilisation of maritime space for different sea uses.

Why:
The European Commission emphasises that the implementation of MSP is the responsibility of Member States and is ready to act as facilitator for cooperation and developing a common approach. Although a great deal can be achieved at national level, the Commission considers it important to pursue action at EU level to achieve the following coherent framework for MSP within the EU:

- Competition for maritime space (for renewable energy equipment, aquaculture and other growth areas) has highlighted the need for efficient management to avoid potential conflict and create synergies between different activities
- A common approach would enable efficient and smooth application of MSP in cross border marine areas, favouring the development of maritime activities and the protection of the marine environment based on a common framework and similar legislative implications
- Ensuring that MSP is used in all Member States would enhance sustainable growth in the maritime sectors. MSP is crucial for legal certainty, predictability and transparency, thus reducing costs for investors and operators, in particular those operating in more than one Member State
- In addition, without any MSP in place, the increased risk of spatial conflicts between expanding maritime uses, including the protection of the marine environment, may result in a suboptimal combination of growth and sustainability

When:
The MSP came into force in July 2014. Regulation (EU) No 1255/2011 of the European Parliament and of the Council supported and facilitated the implementation of maritime spatial planning and integrated coastal management. European Structural and Investment Funds, including the European Maritime and Fisheries Fund will provide opportunities to support the implementation of this Directive for 2014-2020.

Effect on the Recreational Marine and Superyacht Industries:
There is competition for maritime space, in particular from coastal based marinas, coastal based shipyards, boatbuilders and specific marine recreational events at sea (sailing regatta's etc.). And risk of spatial conflicts between expanding maritime uses, including the protection of the marine environment.

Additional Information:
For more information and relations to other EU legislation see the EU brochure

20. EU Regulation 2015/757: Monitoring, reporting and verifying carbon dioxide emissions from maritime transport (MRV) | Amending Regulation (EU) No 525/2013

Please click on the hyperlinks *throughout for more information*

What:
The Commission's proposal, adopted by the Council in April 2015, was to create an EU-wide legal framework for collecting and publishing verified annual data on CO2 emissions and energy efficiency (MRV Regulation) from all large ships (over 5.000 gross tons) that use EU ports, irrespective of where the ships are registered. This is the first step of the EU strategy to reduce greenhouse gas emissions from maritime transport as outlined by the Commission Communication.

The monitoring plan includes the description of the following five emission sources:

- Main engines
- Auxiliary engines
- Gas turbines
- Boilers
- Inert gas generators

Each ship and/or superyacht is required to monitor and record the following information on a per-voyage basis:

- Port of departure and port of arrival, including the date and hour of departure and arrival
- Amount and emission factor for each type of fuel consumed in total
- CO2 emitted
- Distance travelled
- Time spent at sea
- Cargo carried
- Transport work

Why:
The projected increase of CO_2 emissions from shipping is not in line with the EU objectives; leading to negative impacts on climate change. Furthermore, at the EU level international maritime transport remains the only transport mode not included in the EU's greenhouse gas emissions reduction commitment - which requires additional efforts from all other sectors.
The Council and the Parliament recalled an earlier commitment to take action in the Climate and Energy Package adopted on 23 April 2009.

When:
In June 2013 the European Commission proposed a strategy for progressively integrating maritime emissions into the EU's policy for reducing its domestic GHG emissions.

With several amendments, this strategy was adopted by the European Parliament in April 2014 and the Council adopted the following legal text April 2015:

- Companies shall be required to submit to the verifiers a monitoring plan by 31 August 2017 indicating the method chosen to monitor and report emissions and other relevant information for each of their ships above 5,000 GT.
- For ships falling under the scope of the regulations after 31 August 2017, the company shall be required to submit a monitoring plan within two months after the first call in a port under the jurisdiction of a Member State.

Effect on the Recreational Marine and Superyacht Industries:
Only Superyacht owners and management companies with superyachts in their portfolio of 5.000 GT or more will be affected.

Penalties for non-compliance include:

- EU member states shall set up a system of penalties and notify these provisions to the European Commission by July 2017.
- Ships that fail to comply with the monitoring and reporting requirements for two or more consecutive reporting periods will be issued an expulsion order by the competent authority of the member state of the port of entry. Every member state shall then refuse entry to such a ship.

Additional Information:
The industry, ship-owners and management companies find a global system preferable due to the broader scope and the harmonised application worldwide. The EU MRV Regulation has been negotiated with development of international rules with IMO in mind. The EU believe that the experience with the EU MRV system can contribute to the development and implementation of a global system. In this context, and with a view to facilitate the development of international rules within IMO, the EU will share relevant information on the implementation of the EU Regulation with IMO and other relevant international bodies on a regular basis.

21. DIRECTIVE 2014/94/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the deployment of alternative fuels infrastructure

Please click on the hyperlinks throughout for more information

The European Commission proposed the revision of Directive 2014/94/EU on the deployment of alternative fuels infrastructure. Proposal is scheduled for summer 2021, as part of the Fit for 55 packages.

The legal requirements for the revision are:

- Art 2 defines alternative fuels (broad scope) and vehicle and infrastructure aspects
- Art 3 in conjunction with Annex I requires Member States to adopt National Policy Frameworks for developing alternative fuels markets and deployment of infrastructure, including needed national target setting and measures development
- Art 4-6 establish minimum requirements for infrastructure roll-out in urban/suburban areas and on the TEN-T core network (road and ports)
- Electric recharging: Directive addresses urban/suburban areas only (2020) • CNG/LNG: Directive addresses urban/suburban areas and TEN-T core for 2025/2030
- Hydrogen: Directive leaves it to Member States to take action
- Art 7 establishes user information requirements
- Annex II in conjunction with Art 4-6 establishes technical specifications

22. The occupational safety and health framework directive

Please click on the hyperlinks throughout for more information

What

The European framework directive on safety and health at work, adopted in 1989 (Directive 89/391/EEC), was a huge milestone in improving safety and health at work. The directive sets minimum health and safety requirements for the whole of Europe, although Member States are entitled to maintain or introduce stricter measures.

Why

EU legislature has established a system of basic principles of safety and health management, which must be transposed into national law by the Member States. Thus the principles are applicable in all Member States of the European Union. In 2017, safety and health of the workers was acknowledged as one of the key principles in the Commission recommendation on the Pillar of Social Rights (see additional information below)

It has been estimated that in the EU workers with past exposure to carcinogenic substances at work were newly diagnosed with cancer. Moreover, cancer deaths were attributed to work-related exposure (working environment) to carcinogenic substances; designating cancer as the first cause of work-related deaths in the EU.

The term 'working environment' was defined in accordance with Convention No. 155 of the International Labor Organization and is based on a modern approach that takes into account both technical safety and overall prevention of ill health

When

12 June 1989 on the implementation of measures to encourage improvements in the safety and health of workers at work - the 'Framework Directive'

Scope

- The term 'working environment' was defined in accordance with Convention No. 155 of the International Labor Organization and is based on a modern approach that takes into account both technical safety and overall prevention of ill health.
- The directive aims to ensure equal health and safety for all workers (with the sole exception of domestic workers and certain government and military activities).
- The directive obliges employers to take appropriate preventive measures to make work safer and healthier.
- An important aspect of the Directive is the introduction of the principle of risk assessment. The Directive defines its main elements (including hazard identification, worker involvement, introduction of adequate measures with the priority to eliminate risks at source, documentation and periodic re-evaluation of hazards in the workplace).
- The new obligation to take preventive measures implicitly emphasizes the importance of new forms of safety and health management as part of the overall management processes.

Effect on the Recreational Marine and Superyacht Industries:

It will affect all disciplines and sectors within the Recreational and Superyacht Industries

Additional information

The European Commission's Strategic Framework on Health and Safety at Work 2021-2027 defines the key priorities and actions for improving workers' health and safety, addressing rapid changes in the economy, demography and work patterns.

Strategic priorities of the European Commission's Strategic Framework
The Framework takes a tripartite approach — involving EU institutions, Member States, social partners and other stakeholders — and focuses on three key priorities:

1. anticipating and managing change in the context of green, digital and demographic transitions;
2. improving the prevention of work-related accidents and diseases, and striving towards a Vision Zero approach to work-related deaths;
3. increasing preparedness to respond to current and future health crises.

The success of the framework depends on its implementation at EU, national, sectoral and enterprise levels, with effective **enforcement**, **social dialogue**, **funding**, **awareness-raising** and **data collection** being key. Through its extensive network of partners, EU-OSHA is well placed to facilitate action, cooperation and exchange, and deliver on the ambitions of the framework.

EU-OSHA's **foresight** studies and **overview** projects aim to anticipate risks and identify priorities, to inform the development of OSH practice and policy in areas such as digitalisation and green jobs, and stress and psychosocial risks. EU-OSHA also provides easy-to-use **resources** to help workplaces put prevention into practice, with a wealth of guidance being produced to help keep workers safe during the pandemic, whether exposed on the frontline or adapting to working from home. Its involvement in the Roadmap on Carcinogens and its Healthy Workplaces campaigns demonstrate the Agency's commitment to promoting a culture of prevention across Europe and beyond, a cornerstone of EU OSH policy.

C. Industry related legislative developments within USA and Canada

1. Control techniques guidelines in lieu with regulations for miscellaneous metal product coatings etc.

What:
EPA proposed for Control Techniques Guidelines (CTGs) in lieu of regulations for miscellaneous metal products coatings, plastic parts coatings, auto and light-duty truck assembly coatings, fibreglass boat manufacturing materials and miscellaneous industrial adhesives.

Why
The purpose of the CTGs is control efficiency of national regulations regarding VOC/HAP emissions from coating activities and boat manufacturing. These control technique guidelines will provide guidance to the States and industry EPA's recommendations for reasonably available control technology-level controls for the by EPA appointed paint product categories.

When:
The CTGs came into force 14 July 2008.

Effect on the Recreational Marine and Superyacht Industries:
The application of paint products for boats and Yachts (metal and fibreglass) will be only allowed when the products used are listed in the by EPA; the category list is published at the EPA website.

What industrial processes are affected by this legislation?
Application process of products coatings, plastic parts coatings, auto and light-duty truck assembly coatings, fibreglass boat manufacturing materials and miscellaneous industrial adhesives.

Additional Information:
The adoption of CTGs by the individual American states continues. NMMA and ACA have been successful in convincing states to adopt the industry proposed guidelines and not only technical guides of the EPA CTGs. EPA has even drafted a letter to the states which instructs them to take into account the industry proposed guidelines when developing CTGs.

2. GHG emission factor project (EPA – USA)

Please click on the hyperlinks *throughout for more information*

What:
EPA has now finalized its mandatory carbon reporting rule that would establish the first comprehensive national system for reporting industrial emissions of carbon dioxide and other greenhouse gases.

The final rule requires suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and equipment (except those in the light duty sector), and certain other facilities that emit 25,000 metric tons or more of carbon dioxide equivalent (mt CO2e) per year to submit annual reports regarding GHG emissions to EPA. The proposal does not require control of GHGs, but instead requires certain facilities to monitor and report GHG emissions. Although the reporting methodology varies depending upon the industry, the data collection will usually occur at the facility level rather than at the corporate level.

In 2013 EPA amended the Greenhouse Gas Reporting Rule to implement technical corrections, clarifying revisions, and other amendments to improve the quality and consistency of the data collected by the EPA.

Why:
Among other changes, the EPA is amending the Rule's table of global warming potentials to revise the values for certain greenhouse gases. This action also establishes confidentiality determinations for the reporting of new or substantially revised data elements (i.e., requiring additional or different data to be reported) contained in these final amendments to the Greenhouse Gas Reporting Rule.

When:
Monitoring related to the original law of direct emissions began in January 2010, with the first annual report undertaken in March 2011. The final rule of the amendments was effective as of 1 January 2014.

Scope:
Under the proposed rule, suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and all industrial or manufacturing facilities that emit 25,000 or more metric tons per year of CO2 (or its equivalent "global warming potential" for other greenhouse gases such as methane, nitrous oxide, or fluorinated refrigerants) will be required to submit annual reports to EPA and certify to accuracy and completeness. Small business engine manufacturers, defined as having less than 500 employees, are exempt from this reporting requirement.

Effect on the Recreational Marine and Superyacht Industries:
Not all but several NMMA members have the capability to measure CH4 or have the capability to contract this work out to private labs. The FTIR at Argonne will also provide CH4 from the catalysed SD/I engines, so this data is a supplement to the data from the manufacturers.

What industrial processes are affected by this legislation?
Testing engines, at the facilities of the marine engine manufacturers.

Additional Information:
NMMA is planning to collect N2O emissions from approximately five or six boats with catalysed stern drive/inboard engines operating on the Fox River in Illinois. The CH4 samples from outboards and PWC will be collected at NMMA member engine test facilities and finally reported to industry and competent authorities.

3. Clean Boating Act implementation and marine sanitation device standards

Please click on the hyperlinks *throughout for more information*

What:
In the Clean Boating Act EPA exempted recreational vessels of all sizes from its vessel permit. The American industry and US marine industry association, NMMA, have continued to engage EPA and the US Coast Guard as the agencies study discharges from all vessels and develop the best practices for boaters.

The CBA, an amendment to the Clean Water Act, requires EPA to identify discharges incidental to the normal operation of recreational vessels for which management practices are reasonable and practicable to develop.

Why:
These management practices can help to limit the amount of pollution discharged into our nation's waters. The new proposed rule will preserve the current exemptions for boaters and if finalized, will expand the reach of those provisions.

When:
EPA presented the progress of implementing the Clean Boating Act in its March 2010 report to congress on small commercial vessel discharges, and its examination of marine sanitation device standards. The renewed regulation came into force in January 2014.

Scope:
EPA and the US Army Corps of Engineers are developing a proposed rule for determining whether a water is protected by the Clean Water Act. This rule would clarify which water bodies are protected under the Clean Water Act.

Effect on the Recreational Marine and Superyacht Industries:
Expanding the definition of the "waters of the US" as the rule does, will not impact exemptions for boaters under the Clean Boating Act (CBA). The CBA, an amendment to the Clean Water Act, requires EPA to identify discharges incidental to the normal operation of recreational vessels for which management practices are reasonable and practicable to develop. These management practices can help to limit the amount of pollution discharged into our nation's waters. The new proposed rule will preserve the current exemptions for boaters and if finalized, will expand the reach of those provisions.

What industrial processes are affected by this legislation?
Boating and yachting and using and discharge waste water like black and grey water of waste water containing hazardous substances.

Additional Information:
Discharge zones aren't growing and US marine industry association, NMMA, has formed a committee to work with EPA as it decides how to respond to these petitions:

- Grey water discharge is still largely unregulated except for inland lakes. This might change when vessel permits are renewed in five years
- Copper is under attack of all forms of pesticide registration continuing
- NMMA expects to see more in water cleaning bans
- Gulf Oil Spill will result in a rewriting of Oil Pollution Act or other action, it creates opportunity for new mandate
- Invasive species remains a concern but extremely difficult to address in the US. Aquatic invasive species have caused closures to travelling boats (inland). Boats need to be able to dry out (see also IMO update)

Updates Clean Water Act regarding the marine sanitation devices

According to the legislation, discharges of sewage from vessels are controlled by regulating the wastewater treatment equipment and holding tanks and devices, named the marine sanitation devices (MSDs).

What is MSD?

As regulated in the CWA, a marine sanitation device is described as ‘any equipment for installation on board of a vessel which is designed to receive, retain, treat or discharge sewage and any process to treat such sewage’.

Who is required to use a MSD?

The CWA requires the use of operational and certified MSDs on board a vessel which is equipped with installed toilets and which operates on US navigable waters, including the three-mile territorial seas.

The different categories of MSD:

Please see EPA website

4. Renewable Fuel Standard (EPA – USA)

Please click on the hyperlinks *throughout for more information*

What:
Renewable fuels include liquid and gaseous fuels and electricity derived from renewable biomass energy sources, as opposed to fossil fuels.

Why:
Many renewable fuels achieve significant lifecycle greenhouse gas emissions reductions relative to fossil fuels. Increased use of renewable fuels in the United States can reduce dependence on foreign sources of crude oil and foster development of domestic energy sources, while at the same time providing important reductions in greenhouse gas emissions that contribute to climate change.

When:
The original standard was introduced in 2005, but the Ethanol part was introduced later in October 2010 and research started in 2011.

Effect on the Recreational Marine and Superyacht Industries:
One of the greatest concerns facing the recreational boating industry today relates to the Renewable Fuel Standard, specifically the introduction of E15 into the marketplace. E15 is fuel that is 15 percent ethanol in volume. The fuel currently stocked at the majority of US gas pumps is E10, or 10 percent ethanol.

There are serious and well-documented human, safety, environmental, and technology concerns associated with ethanol blends over 10 percent in recreational boat fuel tanks and engines.

What industrial processes are affected by this legislation?
Refuelling and using fuel for marine engines

Additional Information:
NMMA is hard at work to prevent this dangerous fuel from affecting recreational marine industry. The documents of NNMA explain just how NMMA is working with the EPA, Congress and key industry stakeholders to make a difference.

5. Safety standards for pressurized OMTs

Please click on the hyperlinks *throughout for more information*

What:
This standard is a guide for the design, construction and stowage of portable tanks with related fuel lines and accessories comprising a portable gasoline fuel system for boats.

Why:
To ensure that any OMTs offered for sale in the US are safe, the industry (ABYC, NMMA) and the US EPA have been working together to develop a safety standard test protocol. EPA will review the protocol prior to certifying an outboard marine fuel tank. Although EPA does not have jurisdiction for boating safety, they can notify the USCG and ABYC/NMMA of any tank that has not been tested to ensure that the proper steps are taken to ensure public safety.

When:
The implementation date for the EPA and CARB outboard marine fuel tank (OMT) regulation has been extended until 1 January 2011.

Effect on the Recreational Marine and Superyacht Industries:
Issues are arising from fuel spillage due to the five psi pressure requirement. Fuel tank manufacturers are currently well on their way to resolving this issue.

What industrial processes are affected by this legislation?
Manufacturing standard tanks.

6. CARB; Boatbuilder Evaporative Emission Rules

Please click on the hyperlinks *throughout for more information*

What:
The California Air Resources Board's (ARB) recreational marine engine programme is an important new element in ARB's efforts to improve air quality through reductions of hydrocarbon (HC) and oxides of nitrogen (NOx) emissions. Regulations have been adopted for certain marine vessels and regulations have been proposed for other spark-ignition engines used in boats for propulsion.

Why:
To improve air quality through reductions of hydrocarbon (HC) and oxides of nitrogen (NOx) emissions.

When:
The California Air Resources Board (ARB) will be holding a series of public workshops to discuss updates to the proposed evaporative emission regulation, test procedures, emissions inventory and certification process for spark-ignition marine watercraft.

Effect on the Recreational Marine and Superyacht Industries:
The proposal contained some very controversial requirements, including onboard vapour recovery (ORVR) and a stringent 5 g/m2/day @ 40oC fuel hose requirement. By using a combination of inventory data and technical analysis the US marine industry association, NMMA, has been successful in tabling ORVR and convincing CARB staff to revise the fuel hose requirement to a more reasonable 10 g/m2/day at 28oC.

What industrial processes are affected by this legislation?
Boating and yachting as well manufacturing marine engines

Additional Information:
ARB staff presented an update to the Spark-Ignition Marine Vessel (SIMV) evaporative proposal at the 2013 International Boatbuilder Exhibition and Conference on 18 September 2013. You can view the presentation here: 2013 IBEX Presentation

7. The US Lacey Act

Please click on the hyperlinks *throughout for more information*

What:
The Lacey Act combats both wildlife crime and illegal logging, creating dramatic changes in the still heavily unregulated global timber industry and leading to systemic shifts in the practices of importers, manufacturers, and timber companies within both the US and around the world.

Why:
The rising pressures of illegal logging on the world's forest resources has had devastating effects on invaluable ecosystems, indigenous communities, and local attempts at good forest governance. As it became clear that amending the Lacey Act would be an effective way to address these issues, a precedent setting coalition of environmental, industry, and labour groups, including EIA, successfully backed US policymakers pushing for new amendments to the U. Lacey Act that would transform the timber and wood products market and reduce the harm caused by illegal logging.

When:
On 22 May 2008 the US Congress approved a new amendment to the Lacey Act.

Effect on the Recreational Marine and Superyacht Industries:
Customs and border authorities will inspect a number of things, particularly boats which do not comply with existing Lacey Act and which pose potential impacts to the US market.

What industrial processes are affected by this legislation?

- Design and construction of wooden teak decks, of furniture and other wooden parts of boats
- Design and construction of wooden boats
- All processes related to wooden construction of materials within the scope of the Bill

Additional Information:
Australia:
The Australian Government has committed to encourage the sourcing of timber products from sustainable forest practices and to seek to ban the sale of illegally logged timber products through the following five measures drafted in the 'BILL' - the Australian Lacey act:

1. build capacity within regional governments to prevent illegal harvesting
2. develop and support certification schemes for timber and timber products sold in Australia
3. identify illegally logged timber and restrict its import into Australia
4. require disclosure at point of sale of species, country of origin and any certification; and
5. argue that market-based incentives aimed at reducing emissions from deforestation and forest degradation should be included in a future international climate change agreement.

The BILL represents the regulatory elements of the Government's illegal logging policy. These regulatory controls will be complemented by Government investment in capacity building and bilateral and multilateral engagement.

Extensive consultation has been carried out with stakeholders during the course of developing this BILL. As the Explanatory Memorandum explains:

Peak industry bodies have been widely consulted, including timber importers, trade union representatives, domestic forest industry representatives, environmental non-government organisations, social justice groups, timber manufacturers and retailers of wood products. Consultation across the Commonwealth and state and territory governments took place with an emphasis on establishing the legal basis and the operational and administrative requirements of the policy. The European Union and the United States were consulted in relation to future international forestry policy directions.

The BILL came into force in November 2011 to coincide with the US Lacey Act and upcoming EU Regulations.

Issues for the recreational marine and superyacht industries:
Customs and border authorities will inspect a number of things, particularly boats which do not comply with existing Australian standards and which pose potential impacts to the Australian market.

European Union:
Rules For Timber Certification to Halt Deforestation; Regulation EU - 995/2010 (20 October 2010 adopted by the EU Council).

The European Parliament and European Council have approved the legislation which prohibits the sale of timber logged illegally under the rules of the country of origin. In addition to this, companies must use a system of 'due diligence' to ascertain that the timber they sell in the EU was harvested legally. This legislation was published in the EU under the name of 'FLEGT Action plan[3]'; in the US as the 'Lacey Act' and in Australia as the 'BILL'. The Regulation will officially come into force in March 2013.

The FLEGT Action Plan commits to examine domestic legislation in EU Member States, to analyse whether it could allow action against imports of illegal timber and to examine options for additional legislation; should existing domestic legislation prove inadequate. There are documents below which contain studies published on this issue.

Further amendments to the implementation of the regulation are currently being negotiated and will be published in due course (see also Australia and USA).

In accordance with the goal of ensuring only timber products produced in accordance with the national legislation of the timber-producing country enter the Union, negotiations are underway between the Union and Voluntary Partnership Agreements (FLEGT VPAs) of timber-producing countries to create a legally binding obligation for all parties to implement a licensing scheme and to regulate trade in timber and timber products identified in those FLEGT VPAs.

EN 12.11.2010 Official Journal of the European Union L 295/23

Issues for the recreational marine and superyacht industries:
The newly agreed legislation, published in November 2010, is intended to work alongside the EU FLEGT licensing system, which identifies legal timber and timber products in producer countries and licenses them for import to the EU. This system is being developed through the negotiation of a series of VPAs with cooperating producer countries. For a variety of reasons, some countries that export timber to the EU will not join the proposed VPAs, at least not in the immediate future.

The question of what measures could be taken to exclude illegal products exported from non-VPA countries to the EU have therefore led to a debate on 'Additional Options'.

[3] FLEGT - Forest Law Enforcement, Governance and Trade

After a long period of analysis and consultation, the Commission announced its conclusions with the publication of the draft 'Due Diligence Regulation' in October 2008. The draft regulation was debated by the European Parliament and Council in 2009. The Council's revised version was published in March 2010 and following a debate on potential strengthening amendments in the Parliament's Environment Committee, the final legislation was approved by parliament in July 2010. It was later formally approved by the council on 11 October 2010.

USA:
In May 2008, US Congress passed a ground breaking law banning commerce in illegally sourced plants and their products — including timber and wood products. The new law is an amendment to a 100-year-old statute, named the Lacey Act - after the Congressman who first championed it. The Lacey Act sets a ground breaking precedent for the global trade in plants and plant products, acknowledging and supporting other countries' efforts to govern their own natural resources and putting powerful incentives in place for companies trading in these commodities to do the same.

The new US law will:

- prohibit all trade in plant and plant products (e.g., furniture, paper or lumber) which are illegally sourced from any US state or any foreign country;
- require importers to declare the country of origin of harvest and species name of all plants contained in their products; and
- establish penalties for violation of the act, including forfeiture of goods and vessels, fines and prison time.

It is important to note that the Lacey Act does not impose US law on other countries - 'Illegally sourced' is defined by the content of sovereign nations' own laws. The law applies equally to plants taken, harvested, transported or exported in violation of the relevant laws in any of the 50 US states.

The Lacey Act requires importers to provide a basic declaration for every shipment of plants or plant products. The purpose of these declarations is to increase transparency of the timber and plant trade and enable the US Government to properly enforce the law. The declaration must contain:

- the scientific name of any species used;
- the country of harvest;
- the quantity and measure; and
- the value.

Issues for the recreational marine and superyacht industries:
The legislation not only bans logs and timber, but also prohibits all flora and forest products (ranging from furniture and flooring to paper) made with illegally harvested wood or plant materials.

	US Lacey Act	EU Timber regulation	Australia Illegal Logging Prohibition Act
Entry into force	22 May 2008 and entered into force same day.	2 December 2010, but operational as of March 2013.	23 November 2011.
Prohibition to place illegal timber on the market?	Yes, all operators down to supply chain.	Yes, it applies to the first placers on the EU market *(the first company placing timber and timber products on the European market).*	Yes, prohibition for importers of illegal timber and prohibition for using of the timber processes.
Obligation to follow systems or implement processes	No	Yes, obligation for a Due Diligence System (DDS).	Yes, obligation for a Due Diligence System (DDS) for importers and processors (professional users).
Definition of illegal timber	It is unlawful for any person […] to import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce […] any plant […] taken, possessed, transported, or sold in violation of any law or regulation of any State, or any foreign law, that protects plants or that regulates: • the theft of plants; • the taking of plants from a park, forest reserve, or other officially protected area; • the taking of plants from an officially designated area; • the taking of plants without, or contrary to, required authorization; • taken, possessed, transported, or sold without the payment of appropriate royalties, taxes, or stumpage fees required for the plant by any law or regulation of any State or any foreign law; • taken, possessed, transported, or sold in violation of any limitation under any law or regulation of any State, or under any foreign law, governing the export	'Illegally harvested' means harvested in contravention of the applicable legislation in the country of harvest; (h) 'applicable legislation' means the legislation in force in the country of harvest covering the following matters: • rights to harvest timber within legally gazetted boundaries; • payments for harvest rights and timber including duties related to timber harvesting timber harvesting, including environmental and forest legislation including forest management and biodiversity conservation, where directly related to timber harvesting; • third parties' legal rights concerning use and tenure that are affected by timber harvesting; • trade and customs, in so far as the forest sector is concerned.	Timber harvested in contravention of laws in force in the place (whether or not in Australia) where the timber was harvested.

	or transhipment of plants.		
Key items regarding illegal timber	• prohibition to import, export, transport, sell, receive, acquire, or purchase illegal timber; • prohibition to make or submit any false record, account, label, or false identification of plants; • requires US importers to fill out a declaration form, indicating the scientific name of the species, the country of harvest, the quantity, the measure and the value. There is no legal requirement to adopt a "Due Care" approach, but sanctions will be lower if an operator practices "Due Care". "Due Care" is defined as "that degree of care which a reasonably prudent person would exercise under the same or similar circumstances".	Requires European first placers to follow a Due Diligence System that contains 3 steps: 1. Provide information (e.g. volumes, species, country of harvest) 2. Risk assessment (criteria e.g. prevalence of illegal harvesting, complexity of supply chain, existing trade bans etc.) 3. Risk mitigation (e.g. ask for further documents proving legality; ask for third party verification etc.) Prohibition to place illegal timber on the European market.	To be confirmed but so far, the Australian Bill stipulates: 1. Prohibition to import illegal timber 2. Prohibition to process illegal timber 3. Obligation for both importers and processors to follow Due Diligence requirements such as: • Gather information to assess risk such as kind, origin and details of harvest, name and address of supplier • evidence of compliance with laws of harvesting country; • completeness, accuracy or reliability of information; • assess and identify risk; • mitigate risk depending on level of risk; • make Customs Declaration about Due Diligence undertaken (only for importers); • provide statements of compliance; • auditing.
Requirements to declare information at point of entry of the market	Yes. US importers must fill out a declaration form, indicating the following information: • description of product/ components; • scientific name of species; • country of harvest; • quantity; • units; • value of the product. Filling this form out incorrectly corresponds to an offence.	Yes. The first point of the Due Diligence System requires companies who first place timber on the EU market to provide the following information: • description of product; • species name (common and trade name, if there is ambiguity about the common name, the scientific name has to be indicated as well); • country of harvest (if legislation or the risk of illegal harvesting differs between sub-	Timber importers have to officially declare compliance with the Due Diligence requirements of the Act through a customs import declaration form that does not seem to require provision of information about species, country of harvest, volumes etc. Information about the following points may have to be provided at a later stage for compliance with Due Diligence requirements: • the kind, origin and details of harvest; • the name and business address of suppliers;

		national regions of the country, the specific sub-national region has to be indicated as well; If there is risk associated to a specific forest concession, this information has to be provided in addition to the country and sub-national region of harvest); • quantity of product (volume, weight, or number of units); • name and address of supplier of product; • name and address of trader to whom product has been supplied.	• evidence of compliance with laws of harvesting country/State.
Who is liable	Everyone in the timber supply chain that ends up in the US; Exporters or foreign agents who knowingly helped to commit the crime can be prosecuted as well.	Only the first placer = the first company placing timber and timber products on the European market; Traders further down the supply chain only have to provide basic traceability information.	Importers (prohibition to import illegal timber and obligation to comply with Due Diligence requirements) and log processors (prohibition to process illegal raw logs and obligation to comply with Due Diligence requirements).
What products are covered by the illegal timber legislations	All except for 1. common cultivars (except trees), common food; 2. crops; 3. live plants that are to remain or be planted or replanted; 4. scientific specimens of plant genetic material to be used for research, except for CITES and US nationally protected species.	All except for recycled products, printed paper products (eg newspapers, books), and products covered under customs code 44 04, 44 05, 44 17, 44 19, 44 20, 44 21, 9401 61 00, 9401 69 00, 9401 90 30 of the combined nomenclature.	
Penalties	Sanctions include forfeiture of goods and vessels, fines up to 500,000USD, and prison time up to 5 years; Penalties will be higher or lower based on whether the US authorities deem that the importer knowingly or unknowingly engaged in illegal sourcing and whether	The EU Member States whose penalties must be effective, proportionate and dissuasive and may include fines, seizure of timber and immediate suspension of authorization to trade. However, each Member State is currently deciding upon the exact amount of fines and it is not clear	Penalties include seizure, forfeitures, fines (“pecuniary penalty) up to 500 penalty units for individuals (55,000 AUS$) and up to 2500 penalty units for corporations (275,000AUS$) and a maximum of 5 years jail time plus fines up to 275,000AUS$.

	the importer has taken Due Care or not.	if there will be some kind of harmonization.	For minor breaches of the Bill, administrative sanctions and civil penalties such as notices for remedial action, corrective action requests, increased monitoring and auditing and fines for repeat offenders may be prescribed.
Role of FLEGT licenses. *(FLEGT Action Plan is a voluntary scheme to ensure that only legally harvested timber is imported into the EU from countries agreeing to take part in this scheme).*	FLEGT licensed timber will not benefit from preferential treatment. However, FLEGT licenses can help reduce the risk of illegal logging hence could be an element of a due care approach.	The EU TR accepts FLEGT licensed timber as a proof of legality.	FLEGT licensed timber does not benefit from preferential treatment but the Bill establishes that due diligence requirements may be satisfied among others by compliance with: • laws and processes under laws in force in a State or Territory (this could potentially make reference to Voluntary Partnership Agreements); Rules or processes established or accredited by an industry body established operational processes
Role of CITES timber *(CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES)*	CITES timber will not benefit from preferential treatment. However, CITES licenses can help reduce the risk of illegal logging hence could be one element of a due care approach.	The EU TR accepts CITES timber as a proof of legality.	CITES timber does not benefit from preferential treatment, but the Bill establishes that due diligence requirements may be satisfied among others by compliance with: • laws and processes under laws in force in a State or Territory (this could potentially make reference to Voluntary Partnership Agreements); Rules or processes established or accredited by an industry body established operational processes.
Role of certification	Certified timber will not benefit from preferential treatment. However, certification can help reduce the risk of timber being	Certified products are *not* automatically considered as legal in the regulation like FLEGT licensed or CITES products; The	Certified timber does not benefit from preferential treatment, but the Bill establishes that due diligence requirements

	illegal hence could be one element of a due care approach.	exact role of certification has yet to be decided. In practice, certified products may be considered by companies as low-risk of being illegal in the Risk Assessment part of Due Diligence Systems but it is not clear yet if this approach will be accepted by law enforcement bodies.	may be satisfied among others by compliance with: • laws and processes under laws in force in a State or Territory (this could potentially make reference to Voluntary Partnership Agreements); Rules or processes established or accredited by an industry body established operational processes.

8. The Toxic Substances Control Act (USA)

Please click on the hyperlink *throughout for more information*

What:
The Toxic Substances Control Act (TSCA) provides the United States Environmental Protection Agency (EPA) with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics and pesticides.

Why:
In order to protect human health and the environment, EPA works with its federal, state, and tribal regulatory partners to assure compliance with statutes and regulations in the manufacture (including import), processing, distribution in commerce, use, or disposal of chemical substances. The major federal law governing chemical substances is TSCA.

When:
The act is revised and the new act came in force in 2016

Effect on the Recreational Marine and Superyacht Industries:

- Antifouling Coatings
- All processes with a relation to chemicals which potential contains toxic substances
- Products containing chemicals

Additional Information:
Asbestos is a fibre found in nature, made of six minerals. Its unique structure makes it resistant to fire, a lightweight insulation to keep people warm in their homes. The ethereal quality of the fibres also, unfortunately, makes them easily drawn into our airways.

There they work their way down into our lungs, and our body attacks them. But the fibres are too large for our immune cells to eradicate. Like a sore that won't heal, the scars grow and expand over decades, often until the lungs cease to function. The fibres and scarring can also pierce into the mesothelium, the slippery lining that allows our lungs to slide within our chest cavity, where they cause the aggressive cancer whose name has become synonymous with daytime-television class-action-lawsuit commercials.

While asbestos is illegal in more than 50 countries, the United States is not among them. The Environmental Protection Agency attempted to make asbestos-containing products illegal in 1989—and succeeded temporarily. But the ruling was overturned in 1991 after appeals by manufacturers. The weak point for the regulatory agency was the Toxic Substances Control Act of 1976—the law that ostensibly regulates household and industrial compounds (chemicals in the stuff under the sink or in the garage)—which, when put to the test, did not afford the EPA enough power to ban asbestos. For more information click here.

9. National Ocean Policy (USA)

Please click on the hyperlinks *throughout for more information*

What:
The National Ocean Policy sets forth a vision of an America whose stewardship ensures that the ocean, coasts, and the Great Lakes are healthy and resilient, safe and productive, and understood and treasured so as to promote the well-being, prosperity, and security of present and future generations. In order to better meet the US' stewardship responsibilities, the Interagency Ocean Policy Task Force was established and charged with developing recommendations to enhance the country's ability to maintain healthy, resilient, and sustainable ocean, coasts, and Great Lakes resources.

Why:
To grow the US economy, keep its ocean healthy, and enjoy the highest benefits from its ocean resources, now and in the future.

When:
Came in force in 2016.

Effect on the Recreational Marine and Superyacht Industries:
Coordination to increase administrative efficiencies in the Federal permitting process; better manage the ocean, coastal, and Great Lakes. It can have potential positive effect on recreational marine industry, including marina operations.

Additional Information:
The US National Organic Program contains information on:

- The Implementation Plan
- Marine Planning
- Coastal Communities
- Recreational Fishing and Boating
- Commercial Fishing
- Aquaculture
- Agriculture
- Offshore Renewable Energy
- Offshore Oil and Gas
- Shipping and Ports

10. Boat Manufacturing: National Emission Standards for Hazardous Air Pollutants (NESHAP)

Please click on the hyperlinks *throughout for more information*

What:
The processes regulated include fiberglass resin and gel coat operations, carpet and fabric adhesive operations, and aluminium recreational boat painting operations.

The NESHAP will implement section 112(d) of the Clean Air Act (CAA) by requiring all major sources to meet HAP emission standards reflecting the application of the maximum achievable control technology (MACT).

Why:
The EPA has identified boat manufacturing as a major source of hazardous air pollutants (HAP), such as styrene, methyl methacrylate (MMA), methylene chloride (dichloromethane), toluene, xylene, n-hexane, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), and methyl chloroform (1,1,1- trichloroethane).

When:
Came in force in 2001 and is reviewed constantly.

Effect on the Recreational Marine and Superyacht Industries:
All processes in relation to fiberglass resin and gel coat operations, carpet and fabric adhesive operations, and aluminium recreational boat painting operations.

Additional Information:
For more information on the rule, visit the regulation page for Boat Manufacturing: National Emission Standards for Hazardous Air Pollutants (NESHAP).

11. Energy Efficiency Act (Canada – USA)

Please click on the hyperlinks throughout for more information

What:
The federal Energy Efficiency Regulations, 2016 (New Regulations) came into force, repealing and replacing the original Energy Efficiency Regulations (Regulations). The New Regulations increase the energy efficiency standards for certain consumer and commercial products and take a step towards harmonizing Canada's energy efficiency standards with those of the United States. The EE Regulations where in July 2021 updated by implementing Amendment 17.

Why
The Regulations, enacted under the Energy Efficiency Act, were first introduced in 1995 with the goal of reducing greenhouse gas emissions and eliminating the least energy-efficient products from the market. They prescribed minimum energy performance standards (MEPS), in addition to reporting and labelling requirements, for certain categories of regulated products involved in interprovincial trade and importation.

In 2014, as an initiative of the Canada-United States Regulatory Cooperation Council, Natural Resources Canada and the U.S. Department of Energy set out the objective of aligning as between the countries new and updated energy efficiency standards and test methods. The New Regulations are at least the beginnings of Canada's long-awaited response to this initiative. In July 2021 Amendment 17 was implemented in the New Regulations.

When
Amendment 17 will come in force in 2022

Scope
- Introduce Minimum Energy Performance Standards (MEPS), testing standards, verification and reporting requirements for one household appliance;
- Introduce more stringent MEPS and update testing standards for central air conditioners and heat pumps;
- Make miscellaneous updates for some currently regulated products; and
- Introduce the authority to use Ministerial Regulations for some products.

Effect on the Recreational Marine and Superyacht Industries:
It will affect the suppliers and manufacturers of machinery and equipment supplying energy related products, especially the electrical equipment suppliers

Additional information:
The Energy Efficiency Regulations Forward Regulatory Plan has been updated in April indicating Natural Resources Canada's intent to proceed with the development of Amendment 17 to increase the energy efficiency for all new home appliances to the ENERGY STAR® level, to deliver on the Mandate Letter of December 13, 2019, in which the Prime Minister of Canada asked the Minister of Natural Resources to make ENERGY STAR® certification mandatory for all new appliances starting in 2022.

12. Osha Act 1970 ("Occupational Safety and Health Act of 1970.")

Please click on the hyperlinks throughout for more information

What:
The Occupational Safety and Health Act of 1970 is a U.S. law establishing workplace standards to ensure that employees are protected from hazards that compromise their safety and health.

The OSH Act covers most private sector employers and their workers, in addition to some public sector employers and workers in the 50 states and certain territories and jurisdictions under federal authority.

Why:
Federal law entitles employees to a safe workplace. Establishing a safety and health program in the workplace is one of the most effective ways of protecting the businesses most valuable asset: their workers. Losing workers to injury or illness, even for a short time, can cause significant disruption and cost—to you as well as the workers and their families. It can also damage workplace morale, productivity, turnover, and reputation.

When:
On December 29, 1970, President Richard Nixon signed into law the Williams-Steiger Occupational Safety and Health Act, which gave the Federal Government the authority to set and enforce safety and health standards for most of the country's workers.

Scope:
There are four groups of OSHA standards: General Industry, Construction, Maritime, and Agriculture. (General Industry is the set that applies to the largest number of workers and worksites). These standards are designed to protect workers from a wide range of hazards.

Additional information:
The purpose and policy of the Act has been through the exercise of its powers to regulate commerce among the several States and with foreign nations and to provide for the general welfare, to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources

- by encouraging employers and employees in their efforts to reduce the number of occupational safety and health hazards at their places of employment, and to stimulate employers and employees to institute new and to perfect existing programs for providing safe and healthful working conditions;
- by providing that employers and employees have separate but dependent responsibilities and rights with respect to achieving safe and healthful working conditions;
- by authorizing the Secretary of Labor to set mandatory occupational safety and health standards applicable to businesses affecting interstate commerce, and by creating an Occupational Safety and Health Review Commission for carrying out adjudicatory functions under the Act;
- by building upon advances already made through employer and employee initiative for providing safe and healthful working conditions;
- by providing for research in the field of occupational safety and health, including the psychological factors involved, and by developing innovative methods, techniques, and approaches for dealing with occupational safety and health problems;
- by exploring ways to discover latent diseases, establishing causal connections between diseases and work in environmental conditions, and conducting other research relating to health problems, in recognition of the fact that occupational health standards present problems often different from those involved in occupational safety;

- by providing medical criteria which will assure insofar as practicable that no employee will suffer diminished health, functional capacity, or life expectancy as a result of his work experience;
- by providing for training programs to increase the number and competence of personnel engaged in the field of occupational safety and health; affecting the OSH Act since its passage in 1970 through January 1, 2004.
- by providing for the development and promulgation of occupational safety and health standards;
- by providing an effective enforcement program which shall include a prohibition against giving advance notice of any inspection and sanctions for any individual violating this prohibition;
- by encouraging the States to assume the fullest responsibility for the administration and enforcement of their occupational safety and health laws by providing grants to the States to assist in identifying their needs and responsibilities in the area of occupational safety and health, to develop plans in accordance with the provisions of this Act, to improve the administration and enforcement of State occupational safety and health laws, and to conduct experimental and demonstration projects in connection therewith;
- by providing for appropriate reporting procedures with respect to occupational safety and health which procedures will help achieve the objectives of this Act and accurately describe the nature of the occupational safety and health problem;
- by encouraging joint labor-management efforts to reduce injuries and disease arising out of employment.

D. International Organisations

International Maritime Organisation (IMO)

1. International Convention for Safe and Environmentally Sound Recycling of Ships (IMO - Hong Kong Convention)

Please click on the hyperlinks *throughout for more information*

What:
The Hong Kong Convention is aimed at ensuring that ships, when being recycled after reaching the end of their operational lives; do not pose any unnecessary risk to human health and safety or to the environment.

Why:
It intends to address all the issues around ship recycling, including the fact that ships sold for scrapping may contain environmentally hazardous substances such as asbestos, heavy metals, hydrocarbons, ozone depleting substances and others. It will address concerns about working and environmental conditions in many of the world's ship recycling facilities.

When:
Adoption: 15 May 2009; Entry into force: 24 months after ratification by 15 States, representing 40 per cent of world merchant shipping by gross tonnage, combined maximum annual ship recycling volume not less than 3 per cent of their combined tonnage.

Scope:
Regulations in the new Convention cover: the design, construction, operation and preparation of ships so as to facilitate safe and environmentally sound recycling, without compromising the safety and operational efficiency of ships; the operation of ship recycling facilities in a safe and environmentally sound manner; and the establishment of an appropriate enforcement mechanism for ship recycling, incorporating certification and reporting requirements.

Effect on the Recreational Marine and Superyacht Industries:
According to the new rules, the installation or use of certain hazardous materials on ships will be prohibited or restricted. These hazardous materials include asbestos, ozone-depleting substances, PCBs, PFOS, and antifouling compounds and systems.

What industrial processes are affected by this legislation?

- Design
- Construction
- Processes related to installing nautical equipment and machinery
- Administrative processes around the equipment and used materials (material declaration forms) and inventory of hazardous materials
- Classification process

Additional Information:
See also the similar rules in EU adopted in 2014: Regulation (EU) No 1257/2013 of the European Parliament and of the Council on Ship Recycling.

2. International Convention on the Control of Harmful Antifouling Systems on Ships

Please click on the hyperlinks *throughout for more information*

What:
The Convention on the Control of Harmful Antifouling Systems on Ships prohibits the use of harmful organotins in antifouling paints used on ships and establishes a mechanism to prevent the potential future use of other harmful substances in antifouling systems.

Under the terms of the Antifouling Systems Convention, Parties to the Convention are required to prohibit and/or restrict the use of harmful antifouling systems on ships flying their flag, as well as ships not entitled to fly their flag but which operate under their authority and all ships that enter a port, shipyard or offshore terminal of a Party. Antifouling systems to be prohibited or controlled are listed in an annex to the Convention, which will be updated as and when necessary.

Why:
In the early days of sailing ships, lime and later arsenic were used to coat ships' hulls, until the modern chemicals industry developed effective antifouling paints using metallic compounds. These compounds slowly "leach" into the sea water, killing barnacles and other marine life that have attached to the ship. But studies have shown that these compounds persist in the water, killing sea-life, harming the environment and possibly entering the food chain. One of the most effective antifouling paints, developed in the 1960s, contains the organotin tributyltin (TBT), which has been proven to cause deformations in oysters and whelks.

When:
The International Convention on the Control of Harmful Antifouling Systems on Ships was adopted 5 October 2001, entry into force on 17 September 2008.

Effect on the Recreational Marine and Superyacht Industries:
One of the most effective antifouling paints the organotin tributyltin (TBT) AF are mostly replaced by a Copper based AF system and for Aluminium hulls the industry needs to apply another system.

What industrial processes are affected by this legislation?

- Paint application process
- Repair & maintenance and refit

Additional Information:
The Convention provides for the establishment of a “technical group”, to include people with relevant expertise, to review proposals for other substances used in antifouling systems to be prohibited or restricted. In the Convention the Process for Proposing Amendments to controls on Antifouling systems sets out how the evaluation of an antifouling system should be carried out.

3. International convention for the control and management of ships' ballast water and sediments (IMO – Ballast Water Management Convention; BMW convention)

Please click on the hyperlinks *throughout for more information*

What:
The Ballast Water Management Convention (BMW Convention) aims to prevent the spread of harmful aquatic organisms from one region to another, by establishing standards and procedures for the management and control of ships' ballast water and sediments

Under the Convention, all ships in international traffic are required to manage their ballast water and sediments to a certain standard, according to a ship-specific ballast water management plan. All ships will also have to carry a ballast water record book and an international ballast water management certificate. The ballast water management standards will be phased in over a period of time. As an intermediate solution, ships should exchange ballast water mid-ocean. However, eventually most ships will need to install an on-board ballast water treatment system.

Why:
Invasive aquatic species present a major threat to the marine ecosystems, and shipping has been identified as a major pathway for introducing species to new environments. The problem increased as trade and traffic volume expanded over the last few decades and in particular with the introduction of steel hulls, allowing vessels to use water instead of solid materials as ballast. The effects of the introduction of new species have in many areas of the world been devastating. Quantitative data show the rate of bio-invasions is continuing to increase at an alarming rate. As the volumes of seaborne trade continue overall to increase, the problem may not yet have reached its peak.

When:
The International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM) was adopted 13 February 2004; Entry into force, 12 months after ratification by 30 States, representing 35 per cent of world merchant shipping tonnage.

Scope:
The Convention is divided into Articles and an Annex which includes technical standards and requirements in the Regulations for the control and management of ships' ballast water and sediments:

General Obligations
'Parties shall undertake to give full and complete effect to the provisions of the Convention and the Annex in order to prevent, minimize and ultimately eliminate the transfer of harmful aquatic organisms and pathogens through the control and management of ships' ballast water and sediments'.

Sediment Reception Facilities
'Parties undertake to ensure that ports and terminals where cleaning or repair of ballast tanks occurs have adequate reception facilities for the reception of sediments'.

Scientific and Technical Research and Monitoring
'Calls for Parties individually or jointly to promote and facilitate scientific and technical research on ballast water management and monitor the effects of ballast water management in waters under their jurisdiction'.

'Ships are required to be surveyed and certified and may be inspected by port State control officers who can verify that the ship has a valid certificate; inspect the Ballast Water Record Book; and/or sample the ballast water'.

Effect on the Recreational Marine and Superyacht Industries:

When the IMO's Ballast Water Management Convention enters into force it will impose a number of requirements on ship owners and superyacht operators and more recently the USCG has also introduced regulations. For many ships the most practical way to comply with these new regulations will be to install a ballast water treatment system.

Recreational crafts are generally exempt through the principles of "equivalent compliance" but the flag state authority must agree to this. The principle of equivalent compliance can be applied on "pleasure crafts used solely for recreation or competition" less than 50 meters in overall length and with a maximum ballast water capacity of eight cubic meters".

Yachts in commercial use, yachts exceeding a maximum length of 50m or exceeding a ballast water capacity of $8m^3$ have to fully comply with the BWM convention.

4. International Convention on the Control of Harmful Antifouling Systems on Ships

Please click on the hyperlinks *throughout for more information*

What:
The Convention on the Control of Harmful Antifouling Systems on Ships prohibits the use of harmful organotins in antifouling paints used on ships and establishes a mechanism to prevent the potential future use of other harmful substances in antifouling systems.

Under the terms of the Antifouling Systems Convention, Parties to the Convention are required to prohibit and/or restrict the use of harmful antifouling systems on ships flying their flag, as well as ships not entitled to fly their flag but which operate under their authority and all ships that enter a port, shipyard or offshore terminal of a Party. Antifouling systems to be prohibited or controlled are listed in an annex to the Convention, which will be updated as and when necessary.

Why:
In the early days of sailing ships, lime and later arsenic were used to coat ships' hulls, until the modern chemicals industry developed effective antifouling paints using metallic compounds. These compounds slowly "leach" into the sea water, killing barnacles and other marine life that have attached to the ship. But studies have shown that these compounds persist in the water, killing sea-life, harming the environment and possibly entering the food chain. One of the most effective antifouling paints, developed in the 1960s, contains the organotin tributyltin (TBT), which has been proven to cause deformations in oysters and whelks.

When:
The International Convention on the Control of Harmful Antifouling Systems on Ships was adopted 5 October 2001, entry into force was on 17 September 2008.

Effect on the Recreational Marine and Superyacht Industries:
One of the most effective antifouling paints the organotin tributyltin (TBT) AF are mostly replaced by a Copper based antifouling system and for Aluminium hulls the industry needs to apply another system.

What industrial processes are affected by this legislation?
- Paint application process
- Repair & Maintenance and Refit

Additional Information:
The Convention provides for the establishment of a “technical group”, to include people with relevant expertise, to review proposals for other substances used in antifouling systems to be prohibited or restricted. In the Convention the Process for Proposing Amendments to controls on antifouling systems sets out how the evaluation of an antifouling system should be carried out.

5. IMO Guidelines on Biofouling

Please click on the hyperlinks *throughout for more information*

What:
IMO's MEPC (Marine Environment Protection Committee) adopted the first set of international recommendations in order to address bio fouling of ships in order to minimise the transfer of aquatic species.

In 2017 the GEF-UNDP-IMO GloFouling Partnerships Project was set up additional to the Biofouling Guidelines. Glo Fouling is a global initiative bringing together key partners to respond to a global environmental problem, namely invasive aquatic species introduced via biofouling. The Project fosters an intervention at multiple levels: driving legal, policy and institutional reforms in countries to implement the IMO Biofouling Guidelines; developing capacity to enact a national policy; and bringing in active private sector participation to identify effective solutions and technologies to deal with biofouling.

Why:
Studies have shown that bio fouling can also be a significant vector for the transfer of invasive aquatic species. Bio fouling on ships entering the waters of states may result in the establishment of invasive aquatic species which may pose threats to human, animal and plant life, economic and cultural activities and the aquatic environment.

The potential for invasive aquatic species transferred through bio fouling to cause harm has been recognized by the IMO, the Convention on Biological Diversity (CBD), several UNEP regional seas convention, e.g. Barcelona Convention for the Protection of the Mediterranean Sea against Pollution, the Asia Pacific Economic Cooperation forum (APEC), and the Secretariat of the Pacific Region Environmental Program (SPREP).

When:
Adopted on 15 July 2011

Scope:
The objectives of these guidelines are to provide practical guidance to states, shipmasters, operators and others on measures to minimize the risk of transferring invasive aquatic species from ships' bio fouling. It is important for bio fouling management procedures to be effective as well as environmentally safe, practicable, designed to minimise costs and delays to the ship, and based upon these guidelines whenever possible.

Effect on the Recreational Marine and Superyacht Industries:
Implementation of an effective bio fouling management regime is critical for minimizing the transfer of invasive aquatic species. The bio fouling management measures to be undertaken on a ship should be outlined in a bio fouling management plan and records of bio fouling management practices kept in a bio fouling record book.

Focus on commercial vessels, Superyacht and (small) recreational craft:
The guidelines should focus on commercial vessels and recreational vessels greater than 24 metres in length (superyacht). Guidance for small recreational craft of less than 24 metres in length should be developed as a stand-alone document. The two documents should contain appropriate cross references.

What industrial processes are affected by this legislation?

The bio fouling that may be found on a ship is influenced by a range of factors:

- Design and construction, particularly the number, location and design of niche areas;
- Design related to specific operating profile, including factors such as operating speeds, ratio of time underway compared with time alongside, moored or at anchor, and where the ship is located when it is not in use (e.g. open anchorage or estuarine port);
- Repair and maintenance process and history of maintenance.

Additional Information:

The GEF-UNDP-IMO GloFouling Partnerships Project is a global initiative bringing together key partners to respond to a global environmental problem, namely invasive aquatic species introduced via biofouling. The Project fosters an intervention at multiple levels: driving legal, policy and institutional reforms in countries to implement the IMO Biofouling Guidelines; developing capacity to enact a national policy; and bringing in active private sector participation to identify effective solutions and technologies to deal with biofouling.

6. IMO - MARPOL 73/78 ANNEX VI: Prevention of air pollution from ships

Annex VI: Prevention of Air Pollution from Ships

Please click on the hyperlinks *throughout for more information*

What:
The International Convention for the Prevention of Pollution from Ships (MARPOL) is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes.

The International Maritime Organisation (IMO) is an agency of the United Nations; its MARPOL convention 73/78, addresses limits for emissions of sulphur (SOx) and nitrogen oxide (NOx) (adopted in the 1997 protocol – annex VI).

The 2008 amendments to annex VI set further limits and apply both globally and in dedicated emission control areas (ECAs), both for sulphur and nitrogen oxide. Coming into force on 1 July 2010, the revised annex VI allows for an emission control area to be designated for SOx and particulate matter, or NOx, or all two types of emissions from ships.

Why:
MARPOL Annex VI (Tier I - III) sets limits on NOx and SOx emissions from ship exhausts.
To reduce the effects from ship exhausts, and reduce and prohibits deliberate emissions of ozone depleting substances.

When:
The MARPOL Convention was adopted on 2 November 1973 at IMO. The Protocol of 1978 was adopted in response to a spate of tanker accidents in 1976-1977. As the 1973 MARPOL Convention had not yet entered into force, the 1978 MARPOL Protocol absorbed the parent Convention. The combined instrument entered into force on 2 October 1983. In 1997, a Protocol was adopted to amend the Convention and a new Annex VI was added which entered into force on 19 May 2005. MARPOL has been updated by amendments through the years.

The main changes to MARPOL annex VI will see a progressive reduction in sulphur oxide emissions from ships, with the global sulphur cap reduced initially to 3.50% (from the current 4.50%), effective as of 1 January 2012; then progressively to 0.50 %, effective from 1 January 2020. The limits applicable in Sulphur Emission Control Areas (SECAs) were reduced to 1.00% on 1 July 2010 and will be further reduced to 0.10 %, in 2020.

Scope:
2008 Amendments (Tier II/III)—Annex VI amendments adopted in October 2008 introduced new fuel quality requirements beginning from July 2010, (2) Tier II and III NOx emission standards for new engines, and (3) Tier I NOx requirements for existing pre-2000 engines.

The revised Annex VI enters into force on 1 July 2010. By October 2008, Annex VI was ratified by 53 countries (including the Unites States), representing 81.88% of tonnage.

Emission Control Areas: Two sets of emission and fuel quality requirements are defined by Annex VI: (1) global requirements, and (2) more stringent requirements applicable to ships in Emission Control Areas (ECA). An Emission Control Area can be designated for SOx and PM, or NOx, or all three types of emissions from ships, subject to a proposal from a Party to Annex VI.

Existing Emission Control Areas include:

- Baltic Sea (SOx: adopted 1997 / entered into force 2005; NOx: 2016/2021)
- North Sea (SOx: 2005/2006; NOx: 2016/2021)
- North American ECA, including most of US and Canadian coast (NOx & SOx: 2010/2012).
- US Caribbean ECA, including Puerto Rico and the US Virgin Islands (NOx & SOx: 2011/2014).

The standards set forth in paragraph 5.1.1 of this regulation shall not apply to:

1. A marine diesel engine installed on a ship with a length (L), as defined in regulation 1.19 of Annex I to the present Convention, of less than 24 metres when it has been specifically designed, and is used solely, for recreational purposes; or
2. A marine diesel engine installed on a ship with a combined nameplate diesel engine propulsion power of less than 750 kW if it is demonstrated, to the satisfaction of the Administration, that the ship cannot comply with the standards set forth in paragraph 5.1.1 of this regulation because of design or construction limitations of the ship; or
3. A marine diesel engine installed on a ship constructed prior to 1 January 2021 of less than 500 gross tonnage, with a length (L), as defined in regulation 1.19 of Annex I to the present convention, of 24 m or over when it has been specifically designed and is used solely, for recreational purposes.'

Additional Information:

Tier I and Tier II limits are global, while the Tier III standards apply only in NOx emission control areas:

Table 1. MARPOL Annex VI NOx Emission Limits

Tier	**Date**	**NOx Limit, g/kWh**		
		n < 130	**130 ≤ n < 2000**	**n ≥ 2000**
Tier I	2000	17.0	$45 \cdot n^{-0.2}$	9.8
Tier II	2011	14.4	$44 \cdot n^{-0.23}$	7.7
Tier III	2016†	3.4	$9 \cdot n^{-0.2}$	1.96
† In NOx emission control areas (Tier II standards apply outside ECAs).				

7. IMO - reduction of underwater noise from commercial shipping

Please click on the hyperlinks *throughout for more information*

What:
The IMO - MEPC 66 (IMO Marine Environment Protection Committee) approved Guidelines for the reduction of underwater noise from commercial shipping addresses adverse impacts on marine life, recognizing that underwater noise radiating from commercial ships may have both short and long-term negative consequences on marine life.

Why:
IMO/MEP share the view that underwater noise, in particular background ambient noise due to human activities, is a serious concern - particularly for marine mammals but also for other species, including fish. Although there is still considerable uncertainty about the relationship between noise levels and their effects, there is a growing body of evidence of adverse effects of human produced noise on marine life. It is inevitable that at some stage increasing background ambient noise levels will have serious consequences.

When:
The IMO – MEPC 66 approved the Guidelines during the 66th session from 31 March to 4 April 2014, at IMO Headquarters in London.

Scope:
There are a large number of design, maintenance and operational factors that influence the noise output from vessels. These include speed, loaded displacement, effects of wind and waves, fouling or propeller damage. Although measurements of noise output exist for many vessels, these are generally not available across the full range of operating conditions. Noise level measurements that are available demonstrate a high level of variability between vessels of similar type.

Effect on the Recreational Marine and Superyacht Industries:
It will affect the recreational marine industry, including superyacht users, plus the marina industry. Sound, noise and underwater noise assessments are used for the required permits to review marina and/or yard facilities, or for new buildings, new facilities and/or new Marinas; as well as for boat, yacht and superyacht requirements regarding noise and underwater noise emissions.

What industrial processes are affected by this legislation?

- Design and Manufacturing of propulsion and related equipment
- Design and construction of hulls

- Design and manufacturing on board machinery (like engines etc.)
- Operational modifications relate to ship and yacht design and equipment.

Additional Information:
EU adopted underwater noise rules with a wider scope within the Maritime Strategy Frameworks Directive which becomes Mandatory in 2015 - See page 21 for more information on the Maritime Strategy Framework Directive.

8. IMO Energy Efficiency Measures

What

The Energy Efficiency Design Index (EEDI) was made mandatory for new ships and the Ship Energy Efficiency Management Plan (SEEMP) for all ships at MEPC 62 (July 2011) with the adoption of amendments to MARPOL Annex VI (resolution MEPC.203(62)), by Parties to MARPOL Annex VI. This was the first legally binding climate change treaty to be adopted since the Kyoto Protocol.

Why:

a) Energy Efficiency Design Index (EEDI)

The EEDI for new ships is the most important technical measure and aims at promoting the use of more energy efficient (less polluting) equipment and engines. The EEDI requires a minimum energy efficiency level per capacity mile (e.g. tonne mile) for different ship type and size segments. Since 1 January 2013, following an initial two year phase zero, new ship design needs to meet the reference level for their ship type. The level is to be tightened incrementally every five years, and so the EEDI is expected to stimulate continued innovation and technical development of all the components influencing the fuel efficiency of a ship from its design phase. The EEDI is a non-prescriptive, performance-based mechanism that leaves the choice of technologies to use in a specific ship design to the industry.

b) Ship Energy Efficiency Management Plan (SEEMP) and Energy Efficiency Operational Indicator (EEOI)

The Ship Energy Efficiency Management Plan (SEEMP) is an operational measure that establishes a mechanism to improve the energy efficiency of a ship in a cost-effective manner. The SEEMP also provides an approach for shipping companies to manage ship and fleet efficiency performance over time using, for example, the Energy Efficiency Operational Indicator (EEOI) as a monitoring tool. The guidance on the development of the SEEMP for new and existing ships incorporates best practices for fuel efficient ship operation, as well as guidelines for voluntary use of the EEOI for new and existing ships (MEPC.1/Circ.684). The EEOI enables operators to measure the fuel efficiency of a ship in operation and to gauge the effect of any changes in operation, e.g. improved voyage planning or more frequent propeller cleaning, or introduction of technical measures such as waste heat recovery systems or a new propeller. The SEEMP urges the ship owner and operator at each stage of the plan to consider new technologies and practices when seeking to optimise the performance of a ship.

When:

Legally binding agreement to reduce CO2 emissions from international shipping

July 2011; IMO continued its consideration of making the developed technical and operational measures mandatory by adding a new chapter 4 on energy efficiency to MARPOL Annex VI – Regulations on the prevention of air pollution from ships.

The amendments to MARPOL Annex VI Regulations for the prevention of air pollution from ships, add a new chapter 4 to Annex VI on Regulations on energy efficiency for ships to make mandatory the EEDI for new ships, and the SEEMP for all ships (resolution MEPC.203(62)). Other amendments add new definitions and requirements for survey and certification, including the format for the new International Energy Efficiency Certificate. The new regulations apply to all merchant ships of 400 gross tonnage and above regardless of the national flag they fly or the nationality of the owner, and are expected **to enter into force globally on 1 January 2013.** However, an Administration that considers that it on its industry needs more time to comply may waive the requirement for new ships from complying with the EEDI for up to four years.

Additional Information:
See for the EU MRV Regulation *(EU-2015/757; monitoring, reporting and verification of carbon dioxide emissions from maritime transport)* page 41 of GLEG.

The adoption by IMO of mandatory reduction measures for all ships from 2013 and onwards will lead to significant emission reductions and also a striking cost saving for the shipping industry. By 2020, up to 200 million tonnes of annual CO2 reductions are estimated from the introduction of the EEDI for new ships and the SEEMP for all ships in operation, a figure that, by 2030, will increase to 420 million tonnes of CO2 annually. In other words, the reductions will in 2020 be between 10 and 17%, and by 2030 between 19 and 26% compared with business as usual. The reduction measures will also result in a significant saving in fuel costs to the shipping industry, although these savings require deeper investments in more efficient ships and more sophisticated technologies than the business-as-usual scenario. The annual fuel cost saving estimates states a staggering figure of $20 to 80 billion by 2020, and even more astonishing $90 – 310 billion by 2030.

9. International Agency for Research on Cancer and the World Health Organization: Diesel Engine Exhaust Carcinogenic

Please click on the hyperlinks *throughout for more information*

What:
The International Agency for Research on Cancer (IARC), which is part of the World Health Organization (WHO), classified diesel engine exhaust as carcinogenic to humans.

Why:
In 1988, IARC classified diesel exhaust as probably carcinogenic to humans. Since 1998, an Advisory Group Monographs Programme, which reviews and recommends future priorities for the IARC, recommended diesel exhaust as a high priority for re-evaluation.

There has been mounting concern about the cancer-causing potential of diesel exhaust, particularly based on findings in epidemiological studies of workers exposed in various settings. This was re-emphasized by the publication in March 2012 of the results of a large US National Cancer Institute/National Institute for Occupational Safety and Health study of occupational exposure to such emissions in underground miners, which showed an increased risk of death from lung cancer in exposed workers.

After a meeting of international experts IARC classified diesel engine exhaust as carcinogenic to humans, based on sufficient evidence that exposure is associated with an increased risk for lung cancer.

When:
In 2012 IARC classified the diesel engine exhaust as carcinogenic.

What industrial processes are affected by this legislation?
Together with the IMO Tier III and the EU MRV regulations it will affect the:

- Processes of designing and manufacturing new diesel engines
- The design and installation processes for exhaust systems to be in compliance with the new rules of IMO Tier III

Additional Information:
The combination of the IMO regulations for the prevention of air pollution from ships with EU regulations regarding the priority substances (water related legislations), where PAHs (Polycyclic Aromatic Hydrocarbons or Poly nuclear Aromatic Hydrocarbons) are labelled as priority or hazardous and the announcement of IARC to appoint diesel exhaust emissions and carcinogenic will have a potential impact on the use of diesel engines. PAHs are substances of high concern due to their toxicity and persistence in the environment. Many PAHs and/or their metabolites are known or suspected carcinogens, which mean it has to be phased out to zero before 2020 according to EU law.

E. United Nations Sustainable Development (UN Sustainable Goals)

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

The SDGs build on decades of work by countries and the UN, including the UN Department of Economic and Social Affairs

- In June 1992, at the Earth Summit in Rio de Janeiro, Brazil, more than 178 countries adopted Agenda 21, a comprehensive plan of action to build a global partnership for sustainable development to improve human lives and protect the environment.
- Member States unanimously adopted the Millennium Declaration at the Millennium Summit in September 2000 at UN Headquarters in New York. The Summit led to the elaboration of eight Millennium Development Goals (MDGs) to reduce extreme poverty by 2015.
- The Johannesburg Declaration on Sustainable Development and the Plan of Implementation, adopted at the World Summit on Sustainable Development in South Africa in 2002, reaffirmed the global community's commitments to poverty eradication and the environment, and built on Agenda 21 and the Millennium Declaration by including more emphasis on multilateral partnerships.
- At the United Nations Conference on Sustainable Development (Rio+20) in Rio de Janeiro, Brazil, in June 2012, Member States adopted the outcome document "The Future We Want" in which they decided, inter alia, to launch a process to develop a set of SDGs to build upon the MDGs and to establish the UN High-level Political Forum on Sustainable Development. The Rio +20 outcome also contained other measures for implementing sustainable development, including mandates for future programmes of work in development financing, small island developing states and more.
- In 2013, the General Assembly set up a 30-member Open Working Group to develop a proposal on the SDGs.
- In January 2015, the General Assembly began the negotiation process on the post-2015 development agenda. The process culminated in the subsequent adoption of the 2030 Agenda for Sustainable Development, with 17 SDGs at its core, at the UN Sustainable Development Summit in September 2015.
- 2015 was a landmark year for multilateralism and international policy shaping, with the adoption of several major agreements:
    - Sendai Framework for Disaster Risk Reduction (March 2015)
    - Addis Ababa Action Agenda on Financing for Development (July 2015)
    - Transforming our world: the 2030 Agenda for Sustainable Development with its 17 SDGs was adopted at the UN Sustainable Development Summit in New York in September 2015.
    - Paris Agreement on Climate Change (December 2015)
- Now, the annual High-level Political Forum on Sustainable Development serves as the central UN platform for the follow-up and review of the SDGs.

Today, the Division for Sustainable Development Goals (DSDG) in the United Nations Department of Economic and Social Affairs (UNDESA) provides substantive support and capacity-building for the SDGs and their related thematic issues, including water, energy, climate, oceans, urbanization, transport, science and technology, the Global Sustainable Development Report (GSDR), partnerships and Small Island Developing States. DSDG plays a key role in the evaluation of UN systemwide implementation of the 2030 Agenda and on advocacy and outreach activities relating to the SDGs. In order to make the 2030 Agenda a reality, broad ownership of the SDGs must translate into a strong commitment by all stakeholders to implement the global goals. DSDG aims to help facilitate this engagement.

F. UNEP Implementation plan "Towards a Pollution-Free Planet"

What:
The move towards a pollution-free planet, this implementation plan looks to member States, as well as to development partners, United Nations agencies, faith-based groups, non-governmental organizations, local authorities and communities, businesses, the financial sector and young people to deliver on this vision.

Why:
The World Health Organization estimates that 23 per cent of all deaths worldwide – amounting to 12.6 million people in 2012 – are due to environmental risks.

Addressing pollution thus reduces the burden of disease, helps the environment, improves quality of lives, especially of women and children, reduces the impacts on human health and human capital and avoids income and productivity losses. By acting to prevent, better manage and reduce pollution at the regional, national and local levels, governments and stakeholders put themselves on a path to meeting the Sustainable Development Goals (SDGs), a prime responsibility of member States. In addition, acting on pollution constitutes an important contribution to achieving the SDGs and the 2030 Agenda for Sustainable Development.

When:
Agreed November 2019, the programme became active in 2020 (time line 2020 – 2030).

Scope:
The implementation plan (a) takes forward pollution-related Environment Assembly outcomes, proposes action areas with opportunities and solutions to address capacity gaps and challenges, and contributes to implementing the SDGs by accelerating progress towards the targets through preventing and combating pollution. It promotes the wider sharing of the good experience/knowledge that already exists for acting on pollution. It includes preventive and remedial aspects, for both the near and longer terms, and is both normative and operational. It builds on existing UNEP work and initiatives and focuses on the challenges that are common to the air, water, land/soil, marine and coastal, and chemicals and waste dimensions of pollution.

Additional information:

Effect on the Recreational Marine and Superyacht Industries:
It will affect all disciplines and sectors within the Recreational and Superyacht Industries.

G. UN Convention on Biological Diversity an international legally-binding treaty for the EU Biodiversity Policy Development; recalled by the EU Biodiversity Strategy for 2030 Bringing nature back into our lives COM/2020/380 final

Please click on the hyperlinks *throughout for more information*

What:
On 3 May 2011, the European Commission adopted a new strategy to halt the loss of biodiversity and ecosystem services in the EU by 2020, in line with two commitments made by EU leaders in March 2010 – halting the loss of biodiversity and the degradation of ecosystem services in the EU, and restoring them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss.

Why:
European Union biodiversity and the ecosystem services it provides – its natural capital – are protected, valued and appropriately restored for biodiversity's intrinsic value and for their essential contribution to human wellbeing and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided". The strategy is also in line with the global commitments made in Nagoya in October 2010, in the context of the Convention on Biological Diversity, where world leaders adopted of a package of measures to address global biodiversity loss over the coming decade.

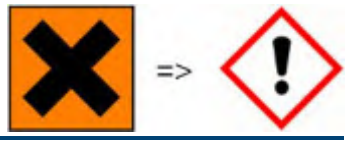
When:
On May 3 2011, the European Commission adopted a new strategy to halt the loss of biodiversity and ecosystem services in the EU by 2020, in line with two commitments made by EU leaders in March 2010 – halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020.

What industrial processes are affected by this legislation?
The EU - CBD is for the shipping and yachting industry related to the bio fouling that may be found on a ship is influenced by a range of factors:

- Design and construction, particularly the number, location and design of niche areas;
- Design related to specific operating profile, including factors such as operating speeds, ratio of time underway compared with time alongside, moored or at anchor, and where the ship is located when it is not in use (e.g. open anchorage or estuarine port);
- Repair and maintenance process and history of maintenance.

Additional Information:
See the EU Biodiversity Policy adopted the UN - Convention on Biological Diversity (CBD) – this is an international legally-binding treaty.

H. UN - Global Harmonised System of Classification and Labelling of Chemicals (GHS)

New Symbols - 

Please click on the hyperlinks *throughout for more information*

What:
The Global Harmonised System of Classification and Labelling of Chemicals (GHS) is a system that defines and classifies the hazards of chemical products and communicates health and safety information on labels and material safety data sheets (called Safety Data Sheets, or SDSs, in GHS). The goal is to ensure the same set of rules for classifying hazards as well as the same format and content for labels and SDS will be adopted and used globally. An international team of hazard communication experts are involved in the development of the GHS classification.

The two major elements of GHS are:

1. Classification of the hazards of chemicals according to the GHS rules:
   GHS provides guidance on classifying pure chemicals and mixtures according to its criteria or rules
2. Communication of the hazards and precautionary information using Safety Data Sheets and labels:
   a. Labels - With the GHS system, certain information will appear on the label. For example, the chemical identity may be required. Standardized hazard statements, signal words and symbols will appear on the label according to the classification of that chemical or mixture. Precautionary statements may also be required, if adopted by your regulatory authority.
   b. Safety Data Sheets (SDS) - The GHS SDS has 16 sections in a set order, and minimum information is prescribed.

Why:
Currently many countries have different systems for classification and labelling of chemical products. In addition, several different systems can exist even within the same country. This situation has been expensive for governments to regulate and enforce, costly for companies complying with many different systems and confusing for workers who need to understand the hazards of a chemical in order to work safely.

When:
United States:
Key dates in US implementation include:

- June 2015: Compliance with all modified provisions of the final rule
- 1 December 2015: Distributors may ship products labelled by manufacturers under the old system until this date
- June 2016: Provide updates on alternative workplace labelling and hazard communication programmes as necessary and provide additional employee training for newly identified physical or health hazards

Europe:
GHS has been adopted into the new EU Classification, Labelling and Packaging (CLP) regulations. These regulations must be used for new products which are:

- Mixtures by 1 June 2015
- There is a two-year transition period for existing products labelled and packaged according to EU Directives (67/548/EEC and 1999/45/EC, both as amended)

Australia
The Model Work Health and Safety Regulations implement the third revised edition of the GHS (GHS Rev.3) as the basis for chemical classification and hazard communication requirements. During the five-year transition period (from 1 January 2012 to 31 December 2016), manufacturers may use either the GHS for classification, labelling and SDS, or the previous hazardous substances and dangerous goods classification systems.

After 31 December 2016, all workplace chemicals must be classified according to the GHS and labels and SDS must be updated. Additional information about the transitional periods for classification, labelling and preparation of SDS is available.

China
Publication of the GHS compulsory national standards is fully aligned with GHS. These standards replaced current national standards and introduce two new hazards classes: Aspiration hazard and hazardous to the ozone layer. The implementation date for the new standards was 1 November 2014.

Japan
In 2012 the National Standard JIS Z 7253 was published to include information about workplace labelling and to be consistent with GHS 4th revised version. A 5th revised version of GHS is available in Japanese.

For other Countries please check at the website of the United Nations[4].

Scope:
The GHS system covers all hazardous chemicals and may be adopted to cover chemicals in the workplace, transport, consumer products, pesticides and pharmaceuticals. The target audiences for GHS include professionals, workers (including the marine and superyacht industry), transport workers, emergency responders and consumers.

Effect on the Recreational Marine and Superyacht Industries:
Workers in the recreational marine and superyacht industry including marinas, boatbuilders and equipment suppliers must understand the new GHS and be aware of the rules for transport, storage, usage, labelling and SDS sheets. The symbols (see attachment in Appendix) have completely changed as has the format of the labels and the Safety Data Sheets (SDS) of Chemical products (for example, paints, cleaners, solvents, fuel, oil etc.)

[4] http://www.unece.org/trans/danger/publi/ghs/implementation_e.html#transport

I. International Regulation of Styrene

Please click on the hyperlinks *throughout for more information*

Chapter A: Occupational exposure to styrene

What:
When using unsaturated polyester (UP) resins, workers are exposed to evaporating styrene monomer. The level of allowable occupational exposure is governed in most countries on National and Local level (environmental permit), by maximum allowable exposure levels.

Why:
The International Agency for Research on Cancer (IARC) in Lyon (2012), France, upgraded styrene's classification from a Group 3 (not classifiable) to a Group 2B which is possibly carcinogenic to humans. This reclassification resulted from revisions to IARC's classification scheme and considerations of styrene oxide, an intermediate formed during styrene metabolism. It is important to note that IARC specifically states that its classifications are intended for hazard identification only.

Scope:
Exposure depends on processing techniques:
Different application techniques have a marked effect on the amount of styrene evaporating from the resin-surface. The rate of styrene evaporation depends on many factors, such as the type of resin, application process; application equipment used and tool design and configuration. As a guide, the table below under additional information (Fig. 1) indicates the typical percentage of styrene loss in the different processing techniques:

*How to comply**:***

a. Keeping exposure levels down
   There are many ways to keep exposure levels down. Some relate to the proper choice of the raw materials, some to the process or the equipment used, and some to the awareness and the dedication of the worker. Below we give - without being exhaustive – a number of suggestions to keep exposure levels down.

b. Cleaner processing
   Good housekeeping can have a major impact in keeping styrene exposure down. It also has a very positive impact on safety and operational costs. Use LSE (low styrene emissions) resins wherever possible and always use a resin with the lowest possible styrene content. Avoid open resin/gelcoat buckets and pails Resin and gelcoat storage should always be in a separate well-ventilated room. Avoid overspray and spills during spraying/lamination. Any spillages should be removed as soon as practically possible.

c. Keep workshop temperatures down
   A high workshop temperature will increase styrene evaporation and thus exposures and emissions. Avoid open waste containers and ensure that all remnants of laminates and resin contaminated rags and paper are always put in a closed container. Such containers should be moved outdoors or into a well-ventilated area when the laminating operation is finished. Although the exposure to styrene takes place mainly through inhalation, excessive skin contact with resins should be avoided, which means always wearing protective clothing and gloves.

d. Switch to closed mould processing where possible or use ionisation
Use application techniques involving non-atomized dosing of resins, such as roller feeding or use modern spray equipment with fluid impingement nozzles. Robotized spraying is suitable when series numbers. Or use flexible ventilation with ionised air which reduces the styrene exposure and emission.

Note: Additionally, from 2011 - 2014, SIRC and styrene industry groups based in Europe (Cefic) and Japan began recommending a world-wide voluntary Occupational Exposure Limit (OEL) of 20 ppm based on an 8-hour TWA.

(Fig. 1)

Country	**8hr avg TLV (PPM)**	**STEL (PPM)**
Austria	20	100 (15 min)
Belgium	50	100 (15 min)
Czech Republic	47	234
Croatia		
Denmark	25	25 (ceiling)
Finland	20	100 (15 min)
France	50 reviewed to 20	--
Germany	20	40 (30 min)
Hungary	12	--
Ireland	50	100 (15 min)
Italy	20	100 (15 min)
Netherlands	25 will be reviewed	50 (15 min)
Norway	25	37,5 (15 min)
Poland	24	72 --
Spain	20	--
Sweden	20 (10 for new installations)	50 (15 min)
Switzerland	50	100 (4 x 10 min)
UK	100 Will be reviewed	250 (10 min) Will be reviewed
USA	20	

The table above gives an overview of the TLV (Threshold Limit Values) as applied across Europe. Styrene concentrations shown in the table are calculated as the average concentration over an 8-hour working period. The STEL value (Short Term Exposure Limit) is the maximum permissible value over a short period, usually 15 minutes. Exposure to concentrations above the STEL value level is prohibited.

Chapter B concerns emissions of styrene to the environment

USA:
The fiberglass-reinforced plastics (FRP/C) and fiberglass boat building industries have many alternatives for reducing styrene emissions. Styrene emissions can be reduced by using resin materials and application equipment that generate less styrene emissions, improving operator techniques to reduce overspray, changing open-moulding processes to closed-moulding processes and using add-on emission control devices. The actual reduction achieved by these alternatives, taken separately or in various combinations, can vary widely.

Lacking the regulatory mandates, add-on pollution control systems are not often used to reduce styrene emissions in the FRP/C and boat building industries. Low concentrations and high air flow rates also have made conventional emission controls very expensive and, in some cases, less efficient in destroying the emissions. The FRP/C and boat building industries need information. To meet this need, the cost and performance of several conventional and emerging add-on pollution control technologies and air flow management practices, potentially applicable to these industries, have been evaluated.

Europe:

More than 60 publications and reports were found to contain usable data on styrene exposure of workers in the European FRP/GRP industry. The data also show that efforts to lower styrene emissions have been very effective, as the following findings will show:

- Styrene emissions and exposure in the open mould sector of the GRP industry has fallen by an average of more than 3% per year over the last 32 years.
- Whereas styrene monomer content in the resin of about 40-45% was normal 30 years ago, nowadays standard resins contain around 35% styrene and, in some cases, even less. The addition of LSE additives to the resin significantly reduces the emission of styrene, especially during the static phase of open mould processing.
- By modifying the molecular backbone of a resin, it is possible to reduce the styrene content further and developments continue into improved, lower styrene content resins. In certain cases, resin formulations have been developed with styrene monomer content as low as 20%, but the complicated processing of these resins reduces the possibilities for their more widespread use.
- Open mould techniques, like hand lamination and spray-up, still retain a prominent place in the processing of unsaturated polyester resins, but the shift to closed moulding is gaining. Technological advances have introduced new closed moulding techniques, such as vacuum resin infusion, which significantly reduce emissions of styrene.

EU legislation:

- On a European scale, styrene is subject to a risk assessment procedure according to European regulation 793/93 (based on the older EU Directive 93/21-EC) In the framework of this regulation existing high volume chemicals have to be risk assessed – a procedure that has led to a much greater understanding of the toxicological profile of styrene.
- The United Kingdom's (UK's) Health and Safety Executive (HSE) on behalf of European Union drafted the comprehensive risk assessment for styrene related to EU Regulation 793/93. The risk assessment report was finalised 2007. Based on the outcome, no new regulation is set by the EC at this moment.

J. United Nations Framework Convention on Climate Change (including the Paris Agreement)

Please click on the hyperlinks *throughout for more information*

What:
To address climate change, countries adopted the Paris Agreement at the COP21 – UN in Paris. The Agreement entered into force less than a year later. In the agreement, all countries agreed to work to limit global temperature rise to well below 2 degrees Celsius, and given the grave risks, to strive for 1.5 degrees Celsius.

Why:
Climate change is now affecting every country on every continent. It is disrupting national economies and affecting lives, costing people, communities and countries dearly today and even more tomorrow.

People are experiencing the significant impacts of climate change, which include changing weather patterns, rising sea level, and more extreme weather events. The greenhouse gas emissions from human activities are driving climate change and continue to rise. They are now at their highest levels in history. Without action, the world's average surface temperature is projected to rise over the 21st century and is likely to surpass 3 degrees Celsius this century—with some areas of the world expected to warm even more. The poorest and most vulnerable people are being affected the most.

When:
To address climate change, countries adopted the Paris Agreement at the COP21 in Paris on 12 December 2015.

The Paris Agreement entered into force on 4 November 2016. The first session of the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement (CMA 1) took place in Marrakech, Morocco from 15-18 November 2016.

Effect on the Recreational Marine and Superyacht Industries**:**

- CO2 emissions
- Emission reduction of Green House gases as VOCs (OZON depleting)

Additional Information:
In recognition of this, 179 countries and the EU spent two weeks in Paris in December 2016 and developed an agreement to keep global temperature increase well below 2C and if possible, below 1.5C. The reduction in temperature can only be achieved through a significant reduction in the emission of greenhouse gases. Known as COP21, (The 21st Conference of the Parties to the UN Framework Convention on Climate Change), it was one of the largest gatherings of world leaders ever seen.

See "The Paris Agreement in a Nutshell video"