



VIRSEC®



Fully Online American Bureau
of Shipping Approved

Electric Vehicle (EV) Hazard Awareness In Port Operations

www.VIRSEC.org

About the Course

As of February 2025, there are over 1,400,000 fully electric cars in the UK. This means that around 4.15% of all vehicles on UK roads are powered by lithium-ion batteries.

Is your port ready for the EV revolution? The fully online Electric Vehicle (EV) Hazard Awareness in Port Operations course empowers your port professionals with the knowledge and skills to mitigate and ensure safe operations.

Lithium-ion batteries have rapidly become an integral part of our modern world. One of their largest impacts is the electrification of road transport.

Their batteries offer unquestioned benefits in terms of efficiency and performance, helping to reduce noxious emissions and carbon-heavy fuel uses.

Despite their advantages, lithium-ion EV batteries also pose unique safety challenges, particularly in the port marine environments, where improper handling or storage can lead to serious hazards such as fires, explosions, or toxic gas releases.

VIRSEC provides maritime port training for an online “**Electric Vehicle (EV) Hazard Awareness in Port Operations**” course which empowers port industry professionals with the knowledge and skills to mitigate risks and ensure safe operations.

Aims of the Course

This course is designed to provide busy port personnel with the critical knowledge and skills to understand and mitigate the hazards associated with Electric Vehicles in port environments.

Given the unique risks posed by EVs, including thermal runaway, chemical leakage, and the potential for fires and explosions, this training offers:

- Detailed guidance on EV hazard awareness
- Strategies for safely storing EVs to minimise the risk of fire spread,
- Procedures for safely managing EVs during loading, unloading, and transfer operations
- Comprehensive training on emergency response protocols tailored to EV incidents, including the use of specialised firefighting equipment and techniques, as well as coordination with fire services.

Learners will clearly understand the risks posed by EV batteries and the many effective ways in which these risks can be substantially reduced.



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Course Learning Objectives

Upon completing this comprehensive course, you will be able to:

- Identify the main types of EV hazards in port operations
- Identify the main type so of abuse that make EVs dangerous
- Recognise early warning signs of EV battery failures and thermal runaway events
- Implement effective strategies for preventing, containing, and suppressing EV fires
- Develop and execute post-incident recovery plans for EV-related emergencies

Course Duration

The course lasts for approximately 3 to 4 hours depending on the learner's abilities and reading speed, and whether you use the voiceover facility.

You can enter and exit this course as often as you require.

Course Certificate

On completion of this online course, you will receive a certificate recognised by the American Bureau of Shipping (ABS).

Target Audience

This essential Electric Vehicle Hazard Awareness in Port Operations e-learning course is designed for:

- Port managers and supervisors who must implement, lead and oversee safe EV handling, storage, and transportation operations.
- Port environmental, health and safety professionals who must develop and implement EV-specific risk assessment and mitigation strategies.
- Safety officers and port ERTs (emergency response teams), who must be prepared to handle EV-related incidents and emergencies.
- Cargo handling personnel who are responsible for loading, unloading, and moving EVs within port facilities.
- Ro-Ro/ PCTC terminal operators who manage the transportation and storage of EVs on vessels.
- Port facility security officers who need to understand the unique security considerations associated with EV operations.

Whether you're overseeing EV cargo, managing charging infrastructure, or implementing safety protocols, this course is vital for your professional development and port safety.



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Booking Your Course

Book your Online Electric Vehicle (EV) Hazard Awareness in Port Operations Course at VIRSEC, where you can learn about Maritime Safety Training.

If you have any questions about the course or any of our other Maritime Courses, please contact us to inquire about bulk purchasing and associated discounts.

You can also call us on +44 (0)161 763 4427 and ask for Olivia or Cathy who will happily assist you.

Course Benefits

The following are the key benefits of the Electric Vehicle (EV) Hazard Awareness in Port Operations Course.

- Enhance your port's safety by implementing specialised EV handling procedures and early detection systems
- Reduce port fire risks through proper EV storage, charging, and monitoring practices
- support regulatory compliance with HSWA, regs and port marine safety code
- Improve operational efficiency by streamlining EV processing and minimising incident-related disruptions
- Protect port assets, infrastructure and business continuity from potential EV fire damage
- Safeguard port personnel with proper training on EV hazards and safety protocols

- Minimise environmental impact by implementing proper containment and disposal procedures for EV incidents
- Boost port reputation as a leader in safe and efficient EV handling
- Increase port competitiveness by demonstrating readiness for the growing EV market
- Reduce insurance and ESG costs through proactive risk management and safety measures.

Key Course Features

The following are the key feature associated with this online course:

- **Designed for Busy Port Professionals:** Content specifically designed for the unique challenges of port environments
- **Comprehensive Modules:** Five in-depth modules covering all aspects of EV hazard awareness and management
- **Real-World Case Studies:** Learn from actual incidents and success stories in the maritime industry
- **Flexible Online Delivery:** Complete the course at your own pace, accessible from any device
- **Industry-Recognised Certification:** Demonstrate your expertise with a valuable credential upon course completion
- **Real-World Case Studies:** Learn from actual incidents and success stories in the maritime industry



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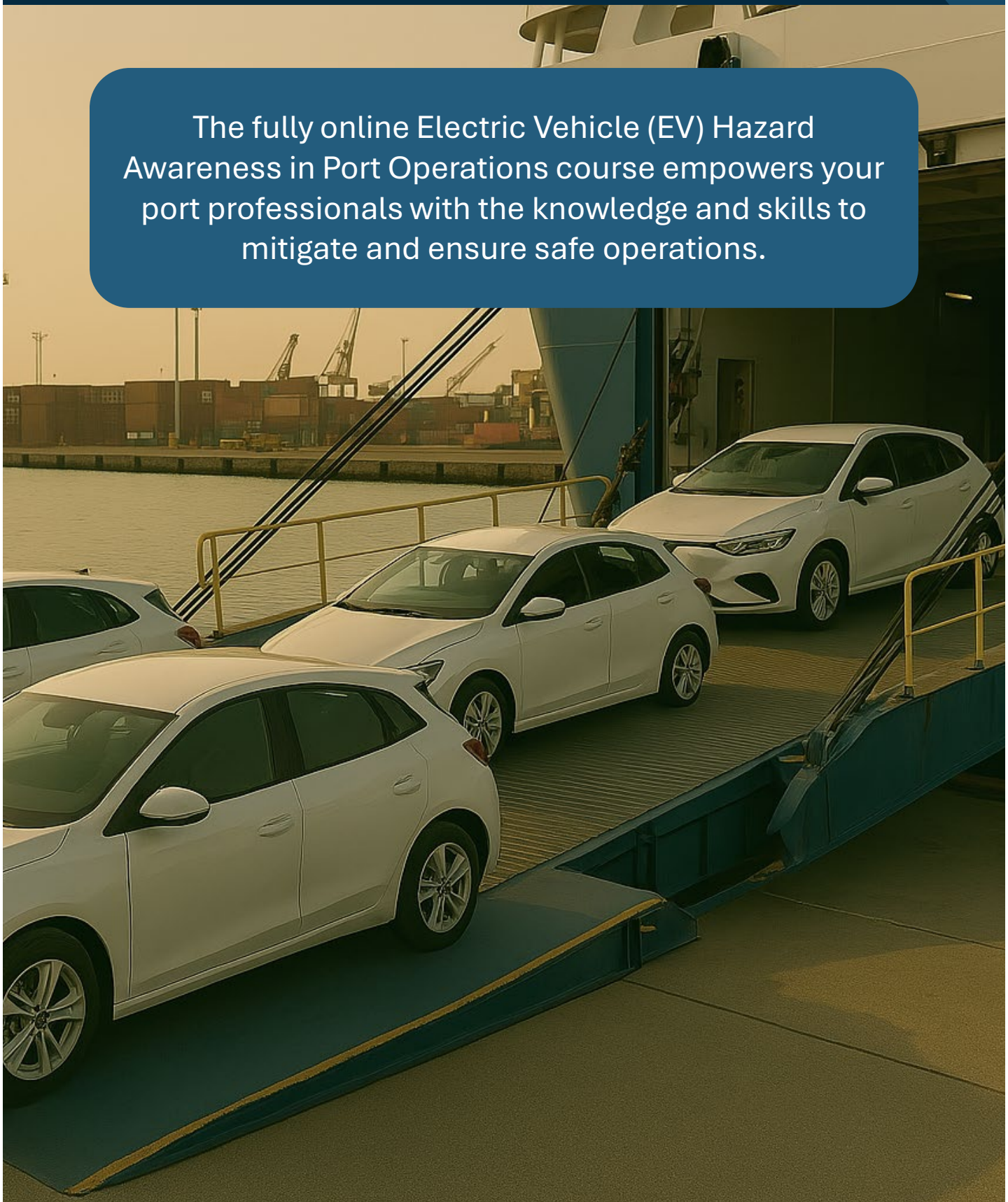


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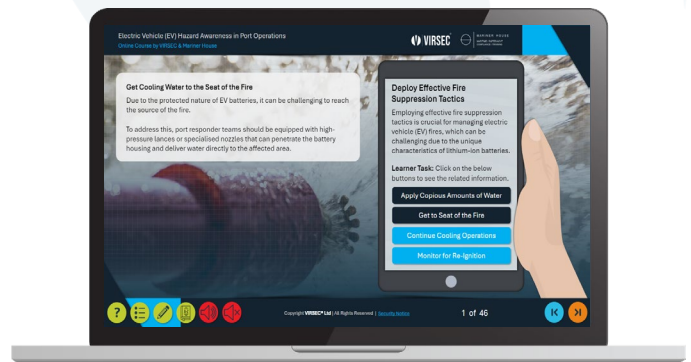
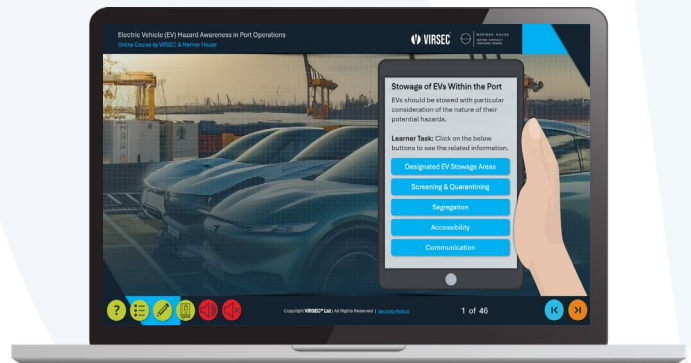
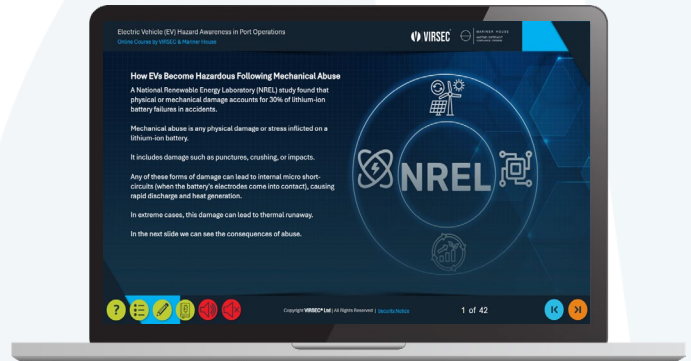
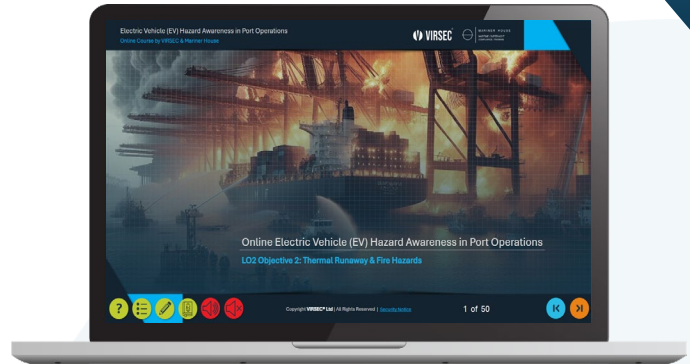
Key Features Continued

- **Flexible Online Delivery:** Complete the course at your own pace, accessible from any device
- **Industry-Recognised Certification:** Demonstrate your expertise with a valuable credential upon course completion

Course Subjects

The online Electric Vehicle Hazard Awareness for Ports course includes the following subjects:

- Types of EVs and their applications in ports
- Dispelling common EV myths
- Understanding lithium-ion battery technology
- Thermal runaway and fire risks
- Toxic and explosive gas hazards
- Mechanical, electrical, and thermal abuse indicators
- EV-specific workplace hazards and controls
- Safe handling practices for damaged or suspect EVs
- Electrochemistry and fire theory for lithium-ion battery fires
- Strategies for preventing and detecting EV battery fires
- Containment and suppression techniques
- Post-incident recovery and business continuity planning



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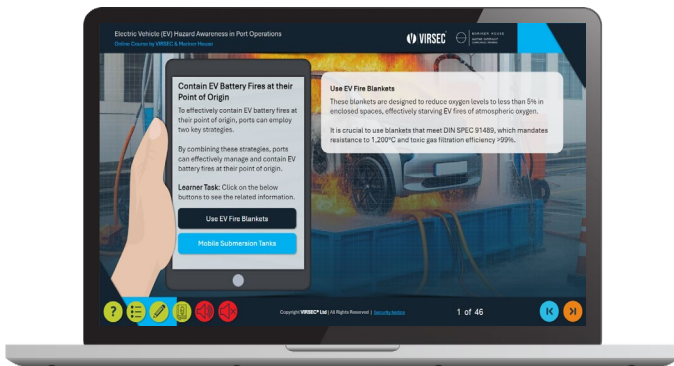
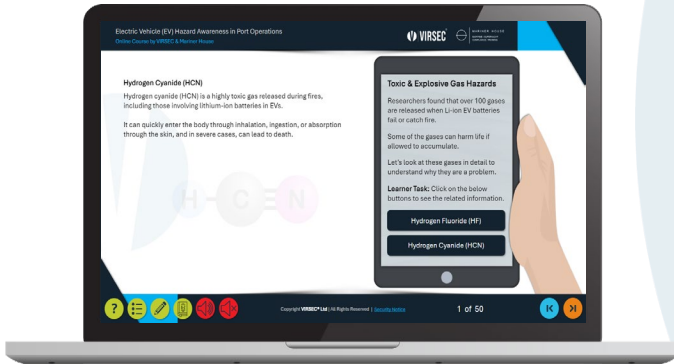
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LIBERIAN REGISTRY



Sample Course Slides



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