

Explosive Environment ESD Training



Whilst the spark might be invisible to the naked eye, fires and explosions in petrol stations, grain silos and oil tankers have all been blamed on electrical static discharge (ESD). Static electricity can build up as easily as clothing material rubbing together, and it can pose a serious threat if procedures haven't been in place to allow it to safely dissipate.

Exploding sugar refineries and oil tankers

In February this year an explosion at a sugar refinery in Georgia (US) was blamed on the reaction between static electricity and sugar dust in a storage silo. Following the explosion six people were killed, 62 taken to hospital and many more injured at what was described as "a small war zone" by fire crews when they arrived. There have also been numerous explosions on oil tankers blamed on the build up of static electricity. Two crew members were killed on a Japanese ship carrying 4000 tonnes of ethanol, whilst a fire started by an ESD spark sunk a 570-foot oil tanker just off the US coast.

ESD fires at petrol stations

Explosions and fires breaking out at petrol stations have also been blamed on the static electricity generated by people in their cars. In 2003 the number of fires at Japanese petrol stations led to the distribution of vulcanized rubber mats along with calls for Japanese car manufacturers to replace metal fuel caps with plastic to insulate the fuel tank from ESD.

It's believed that the main reason fires occur at petrol stations is because of the static generated when people get back into their cars, rub against the seats and then release the static discharge when they return to the fuel pump. Source: www.esdjournal.com

Explosive Environment ESD Training

Audience:

Paint Factories - Mural Installations - Adhesive manufacturers - Pharmaceutical Companies
Printing - Explosive substance Manufacturers - Industrial Rubber- Fire Department-
Supervisors....

Contents:

Background, history, problem description
What causes static electricity in the chemical industry?
Practical demonstrations
What happens at the explosions?
Safeguard measures, establishment of the earth system
Controls, procedures
Group work
Equipment, ionization, humidification, other ESD protection
Laws, regulations, responsibilities

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Trainers of „ESD for EX-Environment“ Course:

Anders Thulin

Basically, a chemist with many years of experience production. He is, after 15 years, one of the main Course leaders in the field of static electricity when management of fire and explosive goods. Employed the IEC's standardization work Electronics as EX- specialist.

Kenth Jämttjärn

Responsible for programs and services of the army corps. Has 15 years experience in the protection against static electricity primarily directed against the producing electronics industry. He has been involved in education in 1000's, people in the Swedish electronics industry.

Stefan Lamnevik

with 40 years experience in research explosive processes and threads. The last 15 years He has worked with risk analysis, training and accident investigations for companies and authorities. Has worked in the defense of education, among others around the handling of explosives.

Anders Molander

Has worked in the defense of education, among others around the handling of explosives. He has also worked at the former Bofors AB (Cur Kitron) with missiles and missile program.

www.armeka.se

karina@armeka.se