

Hazardous Area Compliance Use Case Scenario

Aegex10 IS Tablets + Explosion Protection Documentation System (EPDS)

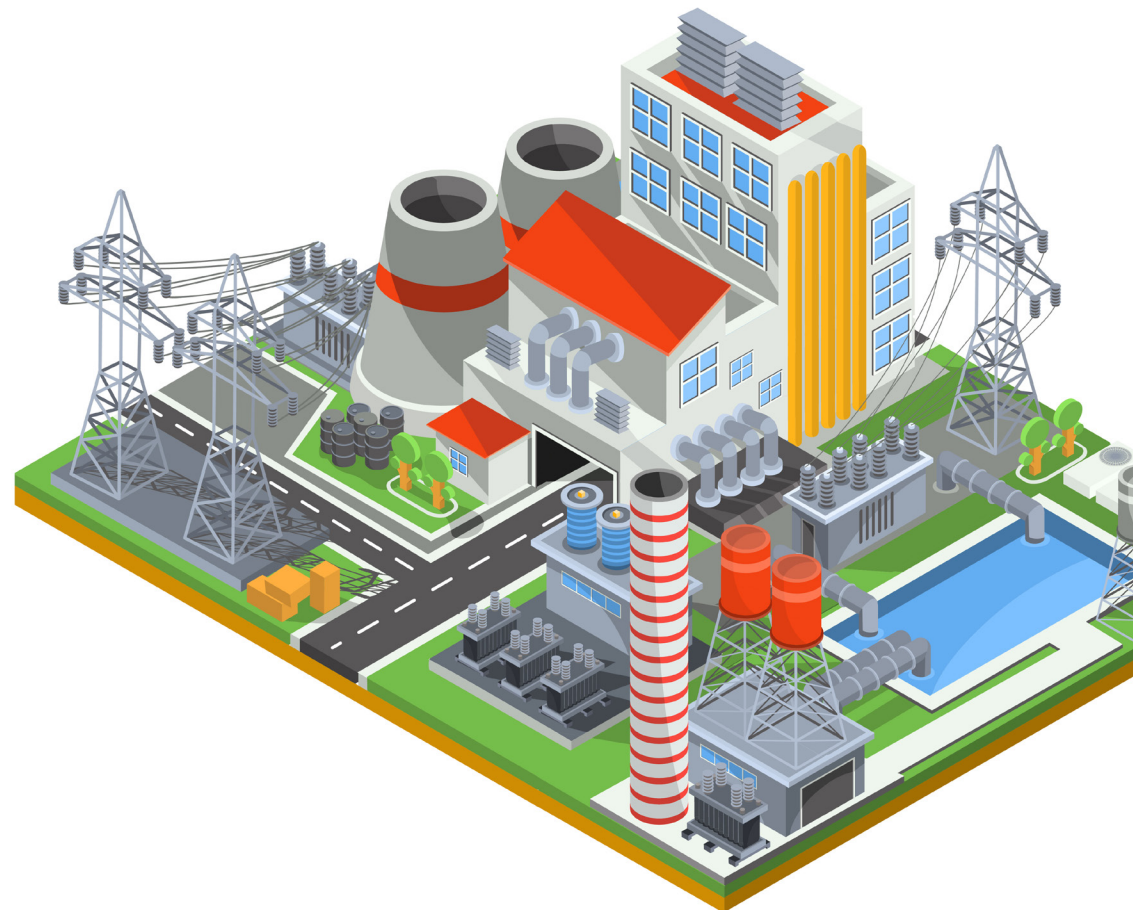


The Potential Client:

A European chemical manufacturer operates hazardous locations where highly combustible materials are present at varying levels throughout the facility, and thousands of pieces of equipment are in constant operation. The company must keep scrupulous records of all hazardous equipment, documentation and processes to comply with national and international regulations.

The Challenge:

The chemical manufacturer is seeking a digital cloud-based solution that will improve the efficiency of storing Hazardous Area Compliance documentation and keeping it up-to-date at all times, as well as making it accessible to all personnel wherever they are. They also would like to track equipment installed in the facility. There is a challenge, however: many personnel are working in or moving in and out of areas classified as ATEX Zone 1 hazardous areas where combustible materials are constantly present. Much of the installed equipment is also located in Zone 1 areas. To access documents and inspect equipment in Zone 1 areas, personnel need a mobile device that is specially certified for those zones.





Requirements:

Under the ATEX 137 (IEC) directive, hazardous location operations like this chemical plant must maintain explosion protection documentation, including:

- **Zone classification**
- **Technology description**
- **Coordination**
- **Competency levels**
 - Trainings
- **Inspections**
- **Verification Dossier**
 - Lifetime tracking

The chemical manufacturer wants personnel to be able to enter Zone 1 hazardous areas to inspect and document conditions, inventory equipment, and upload reports directly to a company server or share information with appropriate contacts in real time.

The Proposed Solution:

1: Hardware - Aegex10 Intrinsically Safe Tablet

2 : Software : EPDS System

The proposed technology solution for this chemical plant is a tool called the Explosion Protection Documentation System (EPDS) and the Aegex10 Intrinsically Safe Tablet.

The EPDS system, created by hazardous equipment and solutions distributor Veproil Kft., digitizes documentation and lifetime tracking of equipment in hazardous area sites so companies can maintain compliance with hazardous area regulations.

1. Hardware - aegex10™ Intrinsically Safe Tablet

Using the Windows-based Aegex10 IS Tablet, operators can enter the most volatile hazardous areas and employ all applicable Windows 10 applications.

Certified for ATEX Zone 1 hazardous locations, as well as equivalent areas in North America (Class I, II, III - Division 1) and internationally (IECEX Zone 1), the Aegex10 operates on Wi-Fi or 4G LTE from any hazardous location around the globe on a unified platform.

The 10.1-inch Windows-based tablet is rated IP65 rugged for industrial use, yet is lightweight and priced as low as noncertified devices. Its Windows 10 operating system gives users uniform access to the Microsoft cloud, plus apps and services, including custom-designed software like EPDS.



Oil & Gas



Chemical



Public Safety



Mining



Utilities



Pharmaceutical



“Customers like EPDS because they can use it to collect all of their hazardous area documentation in one place. With EPDS on the Aegex tablet, personnel can carry with them all documents for explosion protection standards and regulations worldwide, and can track inventory in real time.”

- Arpad Veress, Veproil
Owner, ATEX/IECEX auditor



ATEX Zone 1



IECEX Zone 1



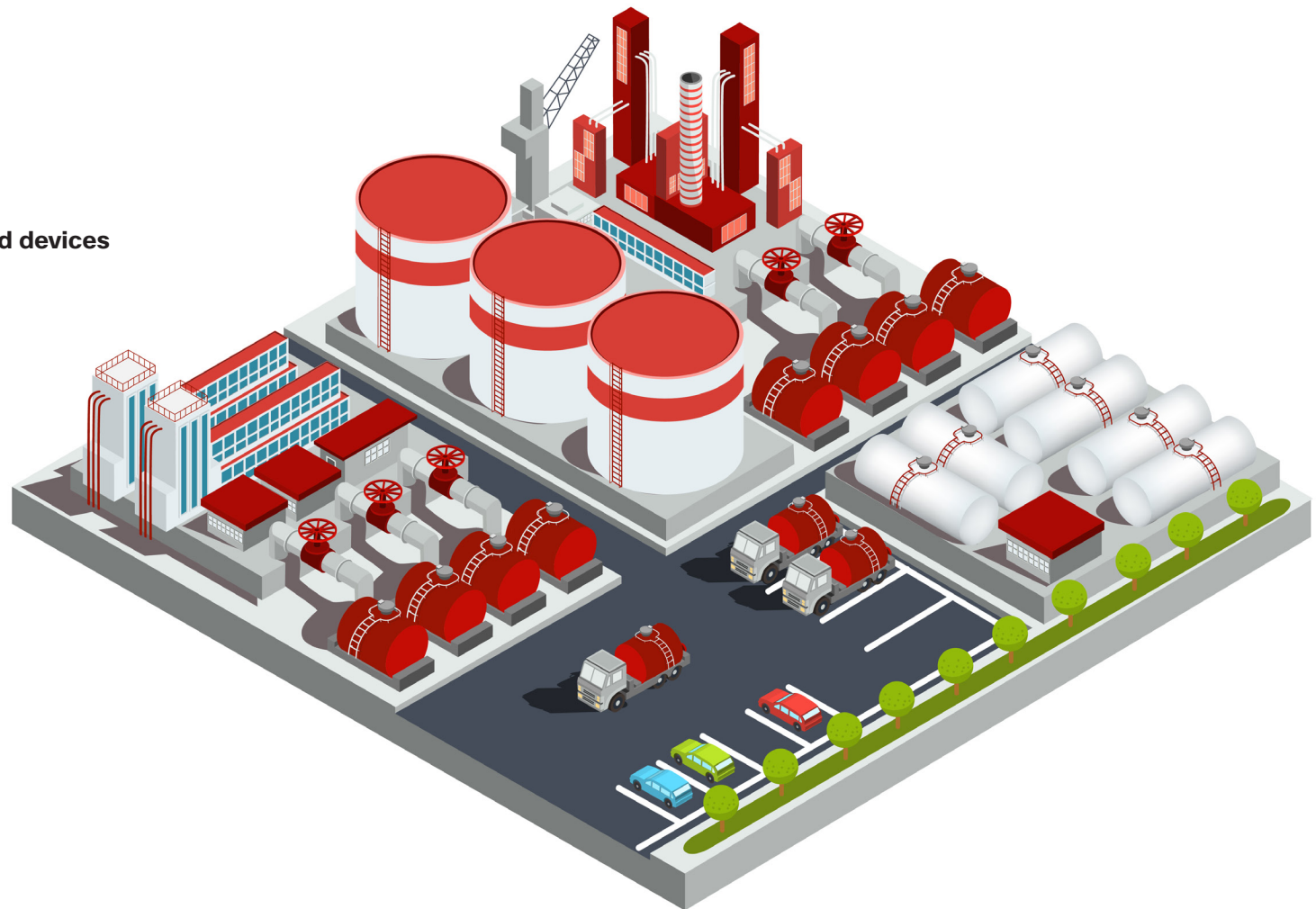
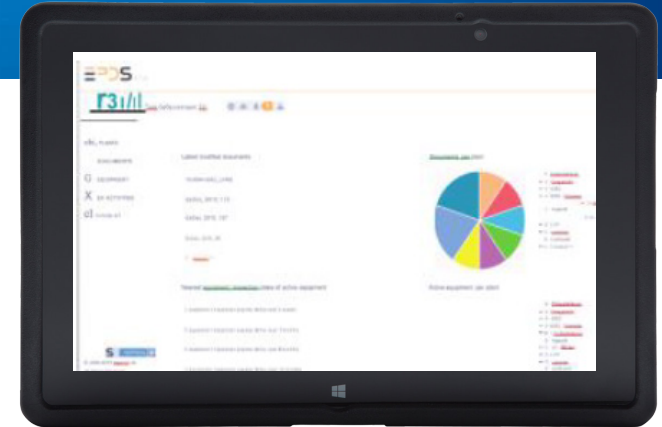
Class I, II, III Division 1

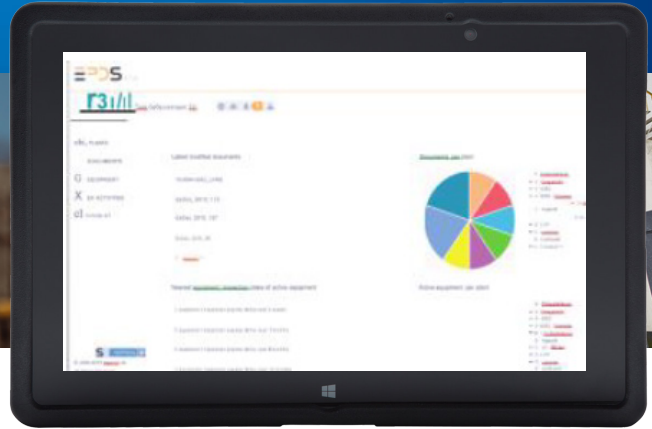


2. Software - EPDS System

The EPDS system can document mandatory Hazardous Area Compliance records such as:

- **Explosion protection documentation**
- **Zone classification**
- **Electrical and non-electrical**
- **Ex installations**
- **Inspections**
- **Ignition hazard assessments**
- **Ex competent colleagues**
- **Verification Dossier**
- **Lifetime tracking of all installed devices**





The Results:

Documentation

Using the Windows-based Aegex10 IS Tablet, chemical plant operators can enter the most volatile hazardous areas (ATEX/IECEx Zone 1; Class I,II,III Div 1) and employ the EPDS system to document all equipment and processes. With the Aegex10 IS Tablet running the EPDS system, all Hazardous Area Compliance information can be updated in real time and be accessible to all personnel onsite and offsite.

Equipment Tracking

In addition to documentation, the EPDS system can track all hazardous area equipment, even in the most volatile zones, when running on the Aegex10 IS Tablet.

Near Field Communication (NFC) Tags can be used to identify all installed electrical and non-electrical devices. Because the Windows 10 Aegex tablet can move through all zones, it can scan NFC tags, or take photos of each piece of equipment with the tablet's intrinsically safe camera, and enter the appropriate information into the EPDS database on the spot without the need for additional equipment.

Operators can also use a number of Windows 10 applications to communicate information about equipment to teammates, such as:

- **Opening a Skype for Business line to speak directly and show visually the item in question**
- **Using Exchange/Outlook email to send photos or other data**
- **Uploading information to a Microsoft cloud-based platform**

The EPDS system is an online, Windows-based tool that is secure, syncs easily with companies' existing IT systems, and can be used anywhere in hazardous locations via the Aegex10 IS Tablet.



The user-friendly EPDS + Aegex10 IS Tablet solution allows users to apply various filters, permissions and competencies to best suit their particular needs. The solution can make documentation and inspections simpler, quicker and more easily accessible, even in hazardous areas.

Contact Aegex or Veproil to learn more.



About Aegex: A technology engineering and design company that provides intrinsically safe Industrial Internet of Things (IIoT) and mobile solutions for hazardous industries. Our globally certified intrinsically safe Windows 10 tablet, sensors and partner monitoring systems, form an IoT platform that manages big data to improve efficiency, safety and productivity in hazardous industrial environments in oil & gas, chemical, pharmaceutical, utilities, public safety, defense and other industries with potentially explosive atmospheres.

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