TechnoKontrol is a member of the National Fire Protection Association.

Products and services insured by ZURICH®.
INDEX

Anti Explosion Strategic Petro-Chemical Gas Tanks Safety System .............................................................. 6
Jumbo Tanks Diagram of the Chain Protection Process .................................................................................... 13
Fuel/Gas Over-ground Storage Cylinder Protection Process ............................................................................. 15
Fuel Tank Internal Installation Process Images Depending on Size, Volume, Petro-Chemical Stored .............. 22
Chemical Accidents, Sabotage & Terrorist Actions Against Strategic National Industrial, Commercial, Economic and Transport Systems .......................................................................................................................... 27
Aviation Industry Compliance Certificate .......................................................................................................... 32
Certificates ......................................................................................................................................................... 44
Legal Notice ...................................................................................................................................................... 46
Contacts ............................................................................................................................................................. 48
Anti Explosion Strategic Petro-Chemical / Gas Tanks Safety System
Anti Explosion Strategic Petro-Chemical Gas Tanks Safety System

TK-AXSPCT TechnoKontrol Anti Explosion Strategic Petro-Chemical Tanks Safety System, offer the possibility not only to reduce exposure to dangerous operational situations but also has the beneficial effect of being financially rewarding for any size of operator especially in the oil-fuel-chemical industries where factors such as evaporation is an essential or expensive issue.

Apart from the client benefiting from not losing as much product which is normally caused from evaporation, via using our product, they will also benefit from the reduced cost on their insurance premiums as when the risk is reduced so too is their insurance. This will ensure that a return on their investment is seen from day one. Savings such as:

- **Asset Risk Reduction**
- **Health & Safety**
- **Savings due to loss of product due mainly to evaporation**
- **Reduction in insurance premiums**
TK-AXSPCT Anti Explosion Strategic Petro-Chemical Tanks Safety Systems brings with it all of the applied technology that comes with our main product line however also consists of additional systems such as:

- **Reducing Vapor losses by up to 98%**
- **Increase operation safety**
- **Reduce maintenance costs**
- **Low initial investment due to our financial options**
- **QSSHE & QMSSHE standards**
- **Fully meeting global EPA directives**

Many fuel-chemical operators have issues regarding vaporization and we have seen that some operators due to thermal wave exposure and due to using outdated deposit systems reach up to 5%-25% (depending on climatic, operational condition & age of installations) loss of product due to vaporization.

TechnoKontrol technology can reduce this by up to 98% of the expected or calculated loss. We are also working alongside the majority of the main insurance companies in this field so as to be able to offer our clients with an insurance premium reduction of at least 5%-25% (depending on climatic, condition, risk region & age of installations). For more information, please feel free to contact one of our TechnoKontrol Petroleum Experts.
TECHNOKONTROL CAN REDUCE VAPORIZATION BY UP TO 98% OF THE CALCULATED LOSS
Jumbo Tanks
Diagram of the Chain Protection Process
TK Anti-Explosive Distribution Shaft

Fuel/Gas Over-ground Storage Cylinder Protection Process

TK Safety Fuel Valve System

Fuel/Gas Pipeline to Building
Technokontrol safety products can be used for external or internal fuel, chemical, petro-chemical, all fuel based tanks from the small fuel tanker to the Oilfield Jumbo tank farm at production or storage to a pumping station.

On top of the above, our explosion suppressing security technology is the perfect application for products which are stored in volatile locations as it eliminates the possibility of accidental fires and/or explosions from flammable liquids and/or gases.

Even under the extreme conditions of an open fire inside the tank, our product has proven that it would protect the tank and enable it to be incapable of bursting into an explosion.

Repairs or welding can be done to the protected tanks without any risk of explosion even with fuel or gasses inside the fuel tanks. This is extremely important for war-social unrest areas where fire arms are used and even bullet holes damage can be welded-blocked without any risk of explosion.

Static discharges, lightning, flying sparks from maintenance repairs; none of the above would be capable of setting or igniting the stored product. Therefore we know at TechnoKontrol that we have created a new standard of maximum safety & security directives for all global petro-chemical-gas operations.
Petro-Chemical-Gas Protection against:

*Lightning discharges*
*Flying ignited particles from nearby fires, maintenance works, repairs*
*Internal plant incidents & accidents*
*Bullet/shrapnel ignition*
*Corrosion-oxidation*
*Criminal & terrorist activities*
*Static charge sparks*
*Personnel miss operation or negligent procedures*
*Malicious attacks or sabotage*
STATIC DISCHARGES, LIGHTNING, BULLET-SHRAPNEL, FLYING SPARKS FROM NEARBY FIRES; NONE OF THE ABOVE WOULD BE CAPABLE OF SETTING OR IGNITING THE STORED PRODUCT
STATIC DISCHARGES, LIGHTNING, BULLET-SHRAPNEL, CORROSION-OXIDATION, ONE OF THE ABOVE WOULD BE CAPABLE OF SETTING OR IGNITING THE STORED PRODUCT
Due to the need for this product being custom made we can provide specifically designed applications from Jumbo Tanks to Ship tankers in all industries and fields of operations. To gain more information on the above products, we suggest that you contact us immediately so that one of our TechnoKontrol Petroleum Experts can provide you with a personalized quote for your business.
Fuel tank internal installation process images depending on size, volume, petro-chemical stored

Larger Fuel/Jumbo tanks will require specialist infrastructure systems designed and installed by TK-Global Engineering to install fully the internal volume of the tanks with our anti-explosion, anti-vaporization, anti-corrosion, anti-algae, anti-electrostatic safety and security technologies.
Empty tank
Tank without protection
Installation
TK Alloy being installed into tank
Full tank
Tank completely protected with TK Alloy
Chemical accidents, sabotage & terrorist actions against strategic national industrial, commercial, economic and transport systems

An Anti-chemical fire fighting/chemical protection machine is seen at the site of a chemical freight train explosion trying to disperse atmospheric chemicals which may reach the general population or even injure, kill, fire fighters, civil protection, health & safety operators, investigators, law enforcement operatives and ground-aerial emergency services, etc.

These safety & security anti-chemical contamination systems can be used, transported, installed in all types of our Technokontrol vessels, transports, safety platforms involving petro-chemical plants, storage facilities, refineries, chemical production plants, pipelines, rail freight, ports, harbors, etc.

Chemical transports can not only be used for normal industrial & commercial use but also used for an easy, effective way for sabotage, terrorist, anti-system attacks in any nation at global level as chemicals accidents or incidents can be easily made into chemical explosives/explosions with the simple derailment
of a train, road tanker, sabotage of port chemical refueling/discharge facilities, internal plant fires, emergency operational system closures, etc.

Worst of all of atmospheric chemical sabotage, terrorist attacks which can be covered as operational accidents but really have political, strategic social, media and economic intentions to effective whole transport networks and closing, evacuating town, cities, general population.

These accidents have already occurred three times in the last year in Belgium where we all believe that safety and security are always at the highest European levels but as one can see these accidents or attacks can happen to any nation, operator, anywhere and at anytime globally, thus prevention, security and safety using Technokontrol technologies is and always will be paramount at all levels, especially at government, transport, law enforcement, civil protection, health & safety levels for any nation regardless of its global location.
THESE ACCIDENTS OR ATTACKS CAN HAPPEN TO ANY NATION, OPERATOR, ANYWHERE AND AT ANYTIME GLOBALLY.
THESE ACCIDENTS OR ATTACKS CAN HAPPEN TO ANY NATION, OPERATOR, ANYWHERE AND AT ANYTIME GLOBALLY.
TK-QMSSHE/QSSHE
GLOBAL CERTIFICATION

TK-QSSHE / TK-Quality Security Health & Environment
Petrol Chemical Industry
TechnoKontrol has presented the new 2017 certificate, seal and logos for the TK-QSSHE Petrol Chemical certification, especially designed for the Petrol chemical, strategic, national security fuel-energy reserves and strategic infrastructures operators.
Due to the increase of the terrorist risk in strategic locations, pipelines, fuel storage facilities, refineries, power stations, airports, seaports, TechnoKontrol has reached an agreement with many of the top European Operators, Government authorities, insurers and the security services to begin the issuance of the new TK-QSSHE Certification Directive in which the incorporated corporations, operators, establishments have or are in the process of protecting their operational assets including fuel storage, power plants with the recommended safety and security technologies to guarantee the maximum levels of protection for their guests, clients, employees and corporate assets.

The terrorist risk levels ever increasing due to the simple physical accessibility, low levels of fixed security protection standards, fabrication simplicity of homemade explosive devices,(I.E.D) which can be made with gas cylinders, petrol bombs and easily planted, activated, ignited in any hotel, shopping mall, airport fuel storage installations, which are all 100% refueled by fuel, gas, LNG, truck tankers.

Any truck fuel tanker, commercial fuel gas tank, fuel deposit with a normal capacity of 30,000 liters of fuels, LNG, heating gas, having in the event of an ignition, spark, armed attack, bullet shot, accident, a thermal, blast, fire, explosive and destruction range/power of a 200,000 TNT explosive and even the simple 30kg home gas cylinder having over 200 kilos of TNT blast.
Technokontrol certifies that the QSSHE Management Systems have been assessed and protected with the most advanced Quality, Safety, Security, Health & Environment (QSSHE) Technologies in accordance of the Safety and Security Directives issued by Technokontrol.

Technokontrol certifies that the QSSHE Management Systems have been assessed and protected with the most advanced Quality, Safety, Security, Health & Environment (QSSHE) Technologies in accordance of the Safety and Security Directives issued by Technokontrol.

COMPANY NAME

TK-QSSHE STANDARDS FOR PETROL CHEMICAL INDUSTRIES

Location: City, Country

Date: 01 January 2017

Expiry Date: 01 January 2018

(This company has been fitted with the most advanced safety and security technologies to prevent the risk of energy, fuel, gas chemical, accidental, criminal/terrorist attacks in their fuel storage and operational power installations in accordance with TK Safety and the NFPA (USA-National Fire Protection Association/ Standard 2014) Directives).
Technokontrol certifies that the QSSHE Management Systems and Directives have been assessed and having installed, protected with the most advanced Quality, Safety, Security, Health & Environment (QSSHE) Technologies with accordance of the Safety and Security Directives issued by Technokontrol.

(Technokontrol Safety & Security Technologies

Certifies

COMPANY NAME

PETROL CHEMICAL INDUSTRIES

The systems and Directives have been assessed and having installed, protected with the most advanced safety and security technologies to prevent the risk of energy, fuel, gas chemical, accidental, criminal/terrorist attacks in their fuel storage and operational power installations in accordance with TK Safety and the NFPA (USA-National Fire Protection Asscociation/ Standard of Explosion Prevention 2014) Directives).

C.E.O. Chief Engineer

Location

Date

Expiry Date

City, Country

01 January 2015

01 January 2016
As these storage installations, deposits, fuel tanks being mostly in open air locations and next to the cities, towns, transport networks, public locations and services, industries, commerce the need of anti-explosive protection being paramount and using TechnoKontrol Safety Technologies allowing the full deactivation, null ignition or even non-explosion of these petrol chemical, national strategic networks and infrastructures, storage facilities regardless of the amount, type of the stored, used fuels, thus rendering any accidental or intentional incident null and fully protecting the population, employees, environment and the operators asset/establishment against these types of incidents.

The issuance and the certification will only be issued with full TechnoKontrol technical compliance and following top global USA & EU Safety, security and protection directives as set out by the USA-NFPA (National Fire Protection Association Codes 2008/2014 for the Prevention of Explosion Acts). All installations, services, maintenance programs and products being fully insured by Zurich Insurance.
TK-QMSSHE/QSSHE GLOBAL CERTIFICATION
PETROL CHEMICAL INDUSTRY
Certificates
Legal Notice

Copyrights TechnoKontrol Cat Global S.L. All Rights Reserved. The text, images, graphics, sound files, animation files, video files and their arrangement on TechnoKontrol Cat Global S.L. Internet sites are all subject to Copyright and other intellectual property protection. These objects may not be copied for commercial use or distribution, nor may these objects be modified or reposted to other sites. Some Technokontrol Internet sites also contain material that is subject to the copyright rights of their providers. All modifications of the web or publicity can be done as the corporation requires. All web and publicity information is not contractual but only information.

Product variations. Some of the product information, illustrations and images contained on this Internet site or all types of publicity may have been prepared for generic use on Technokontrol Internet sites maintained in different countries around the world. Consequently, some of the information and/or accessories which are not available in some countries or which, in order to satisfy local market demand or regulatory controls in such countries, may only be available in different specifications or configurations.
If you are interested in any product, alloy, services, options or accessory shown on the Internet site or publicity and are unsure of its availability or specification in your locality, you should contact TechnoKontrol Cat Global S.L. and/or a local authorized dealer for the relevant product, for information of current details in your locality.

DISCLAIMER

We do not make representation that information and materials on this website and corporate publicity are appropriate for use in all jurisdictions available on the web, or that transactions, securities, products, instruments or services offered on this website or publicity are available or indeed appropriate for sale or use in all jurisdictions, or by all investors or other potential clients. Those who access this website or publicity do so on their own initiative, and are therefore responsible for compliance with applicable local laws and regulations. By accessing each site, the entrant has agreed that he/she has reviewed the website or publicity in its entirety including any legal or regulatory terms.
Aviso Legal
Propiedad Industrial e Intelectual

Estos textos e imágenes, así como todo tipo de publicidad en cualquier formato es propiedad de TechnoKontrol Cat Global SL. Los derechos de Propiedad Intelectual y derechos de explotación y reproducción de esta publicación y publicidad, de sus páginas, la información que contienen, su apariencia y diseño, son propiedad exclusiva de éste salvo que se especifique otra cosa. Todas las denominaciones, diseños y/o logotipos que componen esta publicación son marcas debidamente registradas. Cualquier uso indebido de las mismas por persona diferente de su legítimo titular podrá ser perseguido de conformidad con la legislación vigente. Los derechos de propiedad intelectual y marcas de terceros están destacados convenientemente y deben ser respetados por todo aquel que acceda a la Web y los folletos informativos. Solo para uso personal y privado se permite descargar los contenidos, copiar o imprimir cualquier página de esta publicación. Queda prohibido reproducir, transmitir, modificar o suprimir la información, contenido o advertencias de esta publicación sin la previa autorización escrita de TechnoKontrol Cat Global S.L. Toda la información expuesta en la publicación o en cualquier tipo de formato publicitario es únicamente informativo y no constituye ninguna obligación contractual.

Droits D´Auteur

Copyright TechnoKontrol Cat Global S.L.. Tous droits réservés. Tous les textes, images, graphiques, sons, vidéo et animations ainsi que leur arrangement ou disposition sont protégés au titre du droit d´auteur et aux autres lois relatives à la protection de la propriété intellectuelle. Ils ne peuvent être ni modifiés, ni copiés à des fins commerciales ou à des fins de reproduction, ni utilisés sur d´autres sites web.
