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PARTNER IN COMPLIANCE

# Overrides & Normalisation



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# AGENDA

- The Story
- What is an override?
- Human behaviour
- Leadership behaviour
- Situational awareness
- Take aways from this session

# The Story



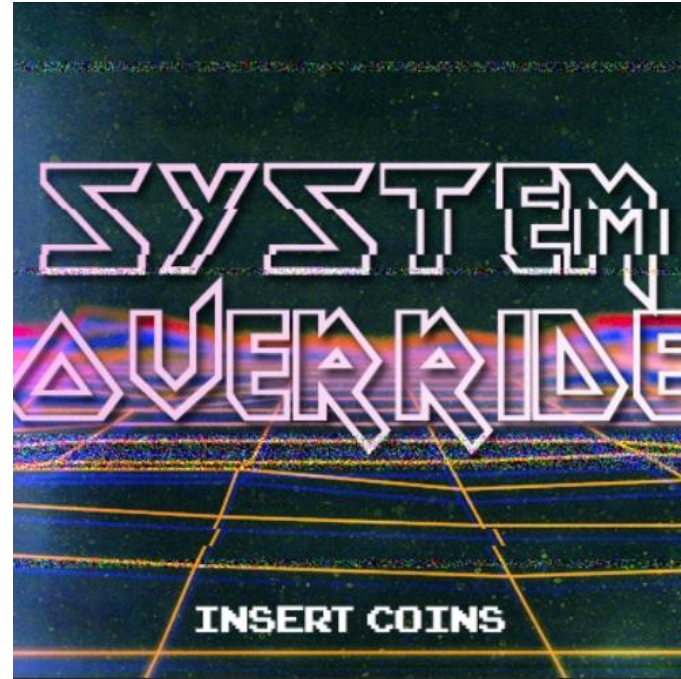
Opened a cabinet of the HVAC  
Saw an override (jumper)  
No Card, no register, no nothing

Asked WHY?

The technician.....

# The Story

- This bothered me!



- Why is the organisation accepting and apparently not capable of solving this

# WHAT IS AN OVERRIDE?

**An override is an interruption to the normal operation of a function (e.g., Process safety system) that prevents the function (system) from performing the desired action.**

**In other words:**

**Software and hardwired overrides are forces or inhibits to avoid control or safeguarding actions to allow the process to continue uninterrupted.**

**Fine,..... but what types of overrides do we have?**

**Engineered and Non-Engineered overrides**

**Two examples**



# ENGINEERED OVERRIDE





# NON-ENGINEERED OVERRIDE



# HUMAN BEHAVIOR

- People often do not realise they are part of the barrier.
- In the operational phase it is key to stay within the operational envelopes, work within the barriers or deviate in a MOC controlled manner. If not strictly adhered to the process ( some people do not always have the understanding and the ownership), you are very close to normalisation.
- With the alarm management example in mind (having many alarms inhibited), what do you think staff will do or find most convenient (tempted) for the next upcoming alarm?
  - → Accept and inhibit alarms, or.....
  - → Stabilize , Slow down, Shutdown and using the 5 Why to find out what went wrong
- Over time people find this normal – have many alarms inhibited or overrides in place. Even if they are aware they work on a chemical plant or a HC facility. And...sometimes this is accepted as the status quo as people perceive it is safe!
- What about the next perspective on how (process) safety is perceived.....

# A380 COCKPIT



How many alarms, overrides, MOC's, deviations would you **expect** in this control room during your 12-hour intercontinental flight?

And how many would you **accept**?

# LEADERSHIP BEHAVIOUR

**What should a leader do to prevent normalisation?**

- **Open cabinets and see what is happening inside → how can you help as a leader to prevent these things from happening → talk to the staff**
- **Help the organisation to e.g., get rid of the full alarm/override pages. Who is “to blame” when having pages full of alarms? The operator?**
- **If you do not take away barriers for the operators and accept the status of having many alarms and inhibits – YOU are the one creating an unsafe situation**
- **Provide structure and conduct compliance checks – take away temptation**
- **Create situational awareness, make sure staff understands the bigger picture and their effect/contribution on Process Safety**
- **.....and about situational awareness.... →**

# SITUATIONAL AWARENESS

## Definition:

- **“Knowing what is going on around us”**

**Situational awareness is key in avoiding process safety incidents. Many incidents have been triggered by the loss of “overview”.**

# EXAMPLE OF LACK OF SITUATIONAL AWARENESS



# TAKE AWAYS FROM THIS SESSION

- Absolute safety does not exist, but risks do → Nature of our work
- Bottom line of PS is to prevent accidents of happening
- PS is not about having luck, but use systems/processes to identify and mitigate PS risks and have **the discipline** to follow them consistently
- Do not accept normalisation of overrides, be proactive – manage expectations and perceptions - be clear - create situational awareness. Dare to take bold steps, remove blockers, perform compliance checks but at the same time → Celebrate successes
- Identify safety leaders (not only line-managers, but also technicians) to form a supporting and powerful coalition → enables ownership
- Verify the PS systems but prevent being the policeman. Rather be the person who takes away blockers in support to convince ourselves to say:  
  
• **Our assets are safe, and “we know it” instead of “we believe so”.**



# ANY QUESTIONS?



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Versatec Energy B.V. is a global technical consultancy company that serves the Energy and Process Industries worldwide. For more than 25 years Versatec provides expertise in all phases of a facility lifecycle. Our flexible, innovative solutions aim to reduce project and operational risks, as well as reduce operational costs.

#### Integrated services:

Versatec helps in mitigating industrial risks and offers technical expertise to projects worldwide in the following areas:

#### Health, Safety & Environment

- QRA, Safety Cases and OSD
- Risk Calculations and BowTies
- Safety Reviews and Studies
- Safety coaching

#### Operations Excellence

- Shorten Turnaround duration
- Technology replication
- Work management, Maintenance and Process optimization

#### Quality & Technical Compliance

- Project Risk reviews
- Pre-start up reviews
- Commissioning and Decommissioning
- Operational Readiness and Assurance
- Legislation
- Technical Due Diligence

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- Operating manuals
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- Viewport
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- Ultimo
- SafeEx

#### Partner:

Our goal is to be your Partner in Technical Compliance. Curious about what we can do for you? Please contact us and we will deliver knowledge and experience to your project.

#### Contact:

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Erik Rutgers, Director of Operations  
Tim Marting, Business Development



# Versatec is implementation Partner for [www.Viewport.ai](http://www.Viewport.ai)

Why : Operations Risk Management needs an integrated approach.

The Viewport tooling enables this integration function (also for Brownfield) allowing you to make better decisions.

Areas of interest:

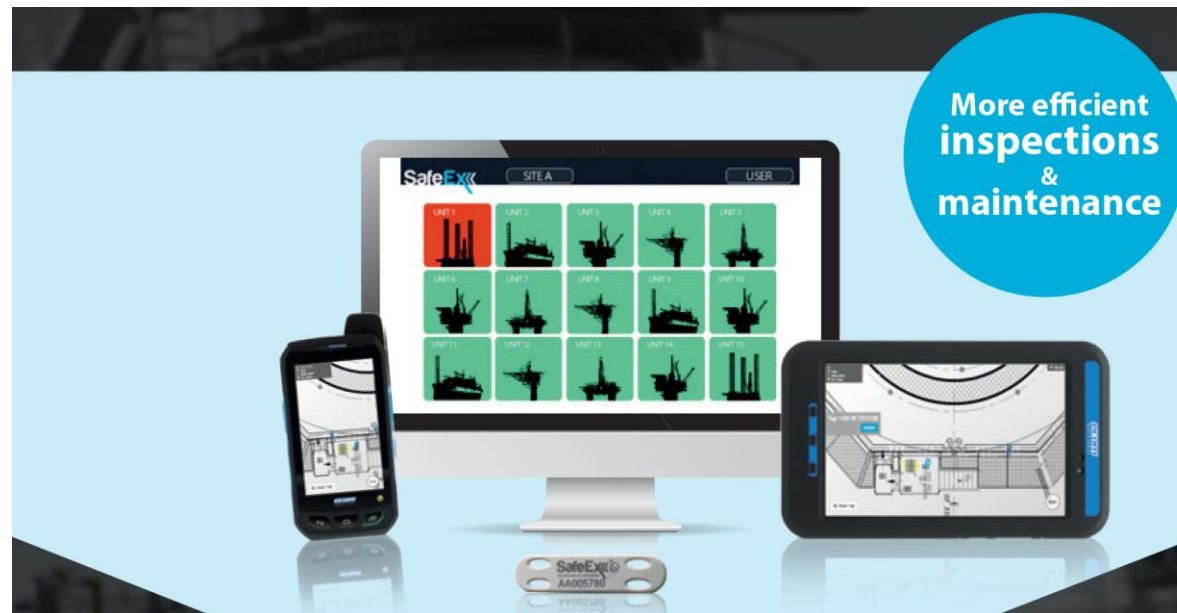
- Permit To Work
- Alarm Management
- Operational Risk Management
- Process Safety validation
- Compliance
- I-diagrams
- Bow Tie's



# Versatec is implementation Partner for <https://www.safeex.com/>

Why : Proof ATEX compliance and improve maintenance work preparation

A major risk in explosive areas in our industry is ATEX compliance, often by the regulatory indicated as a red flag.





# Versatec is your Operations Excellence Training partner [www.versatec.nl](http://www.versatec.nl)

**Why :** Versatec professionals contain many years of relevant experience and is willing to teach/train, coach.

We deliver class-room training, E-learning & coaches.

During the full live cycle of an asset starting from Concept select to hand over and operations to decommissioning.

Huge gains can be win by asking the right questions.

# BACK UP

- An override is an interruption to the normal operation of a function (e.g. Process safety system) that prevents the function (system) from performing the desired action. In other words: Software and hardwired overrides are forces or inhibits to avoid control or safeguarding actions to allow the process to continue uninterrupted.
- Overrides are isolations and can be split into:
  - **Engineered overrides**
    - MOS (Maintenance Override Switch) during maintenance activities e.g. testing and calibration
    - SOR (Start-Up Override) during start-ups; ATOS (Automatic Override Switch); TOS (Timed Override Switch)
    - Inhibit/override/disabling DCS (Distributed Control System) alarms
    - Inhibit Fire & Gas systems and/or other safeguarding systems
    - Mechanical Cap or Hydraulic pump on SSV/Otis/WHCP in case of well entries
  - **Non-engineered overrides**
    - Place jumpers in E/I circuits during instrumentation or maintenance failure
    - Taking-out alarm-, safety-or printer cards
    - Place poly flows as by-pass of control signals of safety systems, e.g. valves, speed-controllers etc.
    - Open by-pass of control valve classified SIL-1 or higher (e.g. during testing or maintenance)
    - Enforce in-/outputs of safety systems
    - Enforce in-/outputs of fire & gas systems
- Startup Overrides (SOR) can be applied by the operator during startup of the installation. All other engineered overrides (e.g. Maintenance Overrides (MOS) and forces) are managed via the PtW system.



# BACK UP

- **Why have an override process?**
- **To ensure that risks (HSSE and Business) when installing or removing overrides, is identified, mitigated and approved prior to effecting a change physically and manage the associated risk to ALARP.**