The Fields End Consulting Limited Guide to ATEX/DSEAR Compliance

DSEAR will apply to a wide range of businesses. Business premises will normally include all industrial and commercial premises where a dangerous substance is present or is liable to be present during the working day.
(Note. Offshore facilities and domestic premises are excluded from the regulations)

Step 1 Existing Hazards and Safety Measures

A.	Identification and assessment of hazards	• Identify and assess the fire and explosion risks of dangerous substances used within the operating plant.
B.	Safety measures and minimising the risk	• Apply safety measures to eliminate or reduce the risks from the use of these substances to be as low as reasonably practicable. Dusts will need to be part of this process. Reduce the risks further by control and mitigation measures (often involving the substitution of substances with a higher flashpoint where possible)
C.	Evaluate any modifications	• Ensure that any modifications do not themselves increase risk potential or introduce other, unassessed risk • Ensure that employees and public are protected from fires and explosions
D.	Remember the objectives throughout	• Ensure that employees and public are protected from fires and explosion

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Step 2 Classifying and Implementing

Once the safety measures are understood and no further improvements can be made to the operation the plant can be put forward for an area classification risk assessment meeting.

A.	Area Classification	• The area classification risk assessment meeting of the plant operation must prevent and provide protection against explosions covering control / electrical and mechanical potential sources – including friction or heating, presence of foreign bodies and static discharge.
B.	Prevention, avoidance and mitigation	• Prevent formation of explosive atmospheres, avoid ignition of explosive atmospheres, and mitigate effects of explosion so as to ensure health and safety of staff and others. Take certain steps in addition to the above requirements so that overall precautions for an explosion in one factory cannot be seen to affect another business nearby. Classify the operating plant into zones with corresponding equipment categories
C.	New and existing equipment	• Generate design change or improvement programmes for the plant to decrease the zoning category so as to make installation, inspection and repair costs as effective as possible. Select equipment to EPS 1996 Regulation requirements under ATEX 95.
D.	Implementing safety procedures	• Before first use of workplace, verify the installation safety situation and design process with competent persons. Co-ordinate safety controls and measures in shared workplaces. Provide operating and safety information, instructions and training to employees including information to ensure safe working in operations and maintenance

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Step 3 Follow through, Operation and the Future

Once agreed, with the risk assessment and design package phase completed, and the plant put into service, the ongoing maintenance, inspection and repair attributes of the regulations are required

A.	Operation and ongoing policies	• Provide policies, procedures and guidance information to ensure safe working in operations and maintenance
B.	Training	• Ensure adequate training is given to all relevant staff including a programme of future refresher training. Consideration should be given to recognised competency schemes such as COMPEX training for installation and inspection technicians.
C.	Zoning and marking	• Mark zoned areas with Ex signs wherever necessary. Provide suitable signage on the main access thoroughfares to a zoned area; identify and label piping and containers that contain recognised dangerous substances. Update the general zoning site map from the specific project documentation map – reclassify the area for specific zones. Particularly review the permit-to-work details to ensure hot work such as welding is reviewed in light of any new changes.
D.	Inspection, maintenance, repair and change	• Implement a programme of equipment inspection and repair. This should be documented to provide reporting analysis on equipment performance. The management of change procedures will need to be reviewed to augment the need for compliance with DSEAR. Ensure there is a clear policy communicated to staff for the reporting and remediation of accidents, incidents and emergencies including a programme of regular practice.

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Prompt	Step	Service/ Product	DSEAR Regulation Conformance
Can you answer YES to these questions?	**Then you need to takes these steps**	**This is how we can help**	**These are the relevant parts of DSEAR**
•Is the DSEAR regulation applicable to your operation or process? •Is there a possibility that combustible/ inflammable atmospheres could occur? •Do you have these substances identified – is it written down as part of your operational risk assessment e.g. COMAH?	START ATEX COMPLAINCE ↓ INHERENT SAFETY AUDIT	•Training •Operational Risk Assessment	REGULATION 4 REGULATION 6
•Do you know where, how and what consequence the residual risks may be on the plant? •Have you identified the potential and likelihood of a flammable or combustible atmosphere occurring? •Have you fully documented the assessment justification and assigned the correct zoning conditions for the plant? •Are your existing protective systems adequate? •Have you confirmed the Electrical / Instrumentation / Mechanical (E/I/M) equipment is fit for purpose? •Can you resolve classification issues in the most cost efficient manner?	↓ The Basis for Safety/Risk Assessments ↓ Zoning ↓ Equipment Inventory Checks ↓ Improvement Program	•Area Classification risk assessments	REGULATION 5 REGULATION 7 REGULATION 17
•Have you checked existing or fitted new labelling to equipment including vessels •piping and containers? •Can you demonstrate you are inspecting, maintaining and repairing equipment – do you analyse document records for compliance? •Do you operate an effective permit to work system? •Do you assess the real impact of a proposed modification and the consequences of the change? •Does your existing safety management system cover all the steps above?	↓ Labelling of Equipment ↓ Maintenance & inspection ↓ Work control procedures ↓ Modifications	•Project & Consultancy services Risk Assessments •Auditing Management & Design procedures	REGULATION 10 REGULATION 7 REGULATION 6 REGULATION 5 REGULATION 6 REGULATION 8 REGULATION 9/11