The Work of the Hazardous Installations Directorate (HID) - Annex 1 - Summary of HID Regulated Sectors

SECTOR	SIZE OF INDUSTRY	NO OF EMPLOYEES	INDUSTRY ISSUES	HEALTH AND SAFETY ISSUES	STRATEGIC TOPICS	'HEALTH' OF SECTOR[1]	OTHER COMMENTS
Offshore Oil and Gas	• 107 oil and gas plus 181 gas producing installations, located on 383 producing fields	Approx 32,000 workers plus tens of thousands more in supporting activities	• Strategically important to the UK economy meeting 50% of the total primary energy needs. £50 billion annually to UK balance of payments. • Ageing life issues with 50% offshore installations operating beyond original design life • Investment in new fields: deeper waters; higher temperatures and pressures; more aggressive waters – presenting challenges to the existing infrastructure and requirement for new technologies. • Volatility of oil prices and the impact on investment (e.g. the recent drop in oil price to a 4 year low). • Fragmentation of the industry with established multi-national companies being replaced by smaller operators. • An acceleration of decommissioning • Implementation of the EU Directive and Competent Authority in 2015	• Risk of catastrophic major incident • Fire & explosion associated with hydrocarbon releases • Loss of installation stability/position • Structural failure as assets age • Mechanical handling and crane operations • Noise • Hand arm vibration • Risk associated with diving activities	• Leadership • Asset integrity • Hydrocarbon release reduction programme • Competence • Worker engagement • Emergency escape and rescue	The industry in general has demonstrated a good standard in managing personal health and safety. Management of major hazard risks dominate. The industry is well resourced, has a good understanding of technical standards and systems to manage major hazard risks and is organised, for example through Step Change in Safety. However, there continue to be failings in implementing effective management arrangements and addressing underlying failings. The strategy, involving targeted interventions in line with the HID regulatory model, aim to address the underlying and management systems shortcomings. Step Change is currently reorganising its structure and governance arrangements to improve its focus on delivering improvements in line with the Offshore Strategy. The key work programmes are: reducing HCRs; major accident hazard management capability; and improving cross industry sharing & learning.	The Scottish devolution discussions could have significant impacts on how these sectors are regulated
Chemicals	• 900 COMAH sites in GB. • Chemical industries consistently account for about 6.5% of all manufacturing and contribute around 1%	Approx. 175,000	• move away from production towards storage / warehousing • move away from manufacture to import model • Financial constraints or ageing plant in declining subsectors • development and supply demands	• Risk of catastrophic major incident • Occupational disease - particularly longer-latency disease No firm evidence relating performance on	• Leadership • Asset integrity • Competence • Worker engagement • Occupational health	In some areas, industry's performance in managing major accident risk requires improvement. Last year HSE investigated 115 incidents at major hazard sites, a significant number relating to loss of containment or other uncontrolled developments	

[1] HIDs level of confidence in how sector is managing MH and H&S risks/hazards

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	to GDP		in expanding areas • Ageing workforce and loss of skilled workers. • Maintaining sufficient process safety competence • Employer and employee recognition and acceptance of their responsibilities	managing health risks to size of business, but previous limited research possibly suggests a degradation from COMAH upper tier to lower tier to non-COMAH. HSE is supporting industry-led work aiming to improve understanding of this. • management of the chemicals supply chain • Land Use Planning		such as fires. Particular issues include: People: Strong competition in the employment market means that the sector is facing a deficit in Natural and Engineering sciences. Ageing plant: HSE interventions have secured improvements in industry's compliance with good practice, but we still continue to identify issues. For example, management of specialist external expertise, which is commonly used to supplement on-site resources. Some operators lack the experience to select the right services, understand the information that 3rd parties provide to them or respond appropriately.	
Explosives	• 150 commercial duty holders across 220 sites. • 50 significant Ministry of Defence sites (and many hundreds of smaller MOD sites) • 100 licensed ports • c75 ammonium nitrate storage sites of significance	Approx. 10,000 -15,000 employees (excluding armed forces)	• Industry needs to embed use of safety performance indicators • Small, but diverse and significant sector with direct links to wider national security and defence issues. • Decline in manufacturing of explosive substances, replaced by storage / assembly / processing of bought-in explosives • Aging plant / infrastructure and new safety-critical designs • Ageing workforce • Cross Government issues e.g. transport, security	• Risk of catastrophic major incidents • Asset integrity • Regulatory non compliance for economic gain in some sub-sectors	• Leadership • Competence • Worker engagement • Asset integrity • Occupational health • Market surveillance	Potential for scrutiny, following two double fatalities in LA enforced sector (HSE providing investigation support) Limited sharing and learning across the sector, but recent work, facilitate by HSE, to promote improvements. Industry starting to address key H&S issues e.g. establishing Explosives Sector Leadership Group (Leadership), Sector Skills Strategy Group (Competence), but more recognition and ownership of issues needed. HSE, as part of HMG, negotiating to influence upcoming European requirements. Safety issues (and hence control of major accident potential) dominate sector's approach; further HSE work planned to establish nature and prevalence of remaining occupational health issues	New Regulations (Explosives Regulations 2014) in force from 1 October 2014. New sub sector specific guidance developed by industry, facilitated by HSE ensuring targeted advice and guidance. Explosives Inspectorate undergoing change programme to provide increased resourcing & more targeted use of specialist resource. Inclusion of explosives sites in Land Use Planning transformation will enable best advice to Local Authorities and developers

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						following sector's reshaping.	
Gas and Pipelines	• Onshore gas transmission and distribution networks operated by 4 key stakeholders; National Grid; Scotia Gas Networks; Wales & West Utilities and Northern Gas Networks • Pipelines transporting oil and gas between the 260 offshore installations to onshore. Also 1,100km of major accident hazard pipelines onshore. • COMAH sites covering gas storage and importation terminals e.g. LNG and MOD fuel	Approx 15-20,000 plus a range of contractors both onshore and offshore	• Ageing infrastructure and asset integrity e.g. iron gas main failures, ageing gas holders. • Safety critical competence and leadership. High level of contractorisation. • Multi-nationals who need to maintain adequate focus on pipeline specific risks. • Further development and use of safety performance indicators, particularly amongst SME's.	• Fire & explosion through loss of containment of gas or volatile fluids from gas networks, pipelines and gas fuel storage and importation facilities • Hand arm vibration • Gas supply emergencies • Third party damage to major accident hazard pipelines • Challenges from emerging energy technologies • Land Use Planning	• Leadership • Competence • Worker engagement • Security of energy supply	**Onshore Gas supply and storage:** Large utility organisations have well advanced H&S systems and PSPI monitoring at Board levels. Concerns remain on incidents linked to ageing assets affecting the public and maintenance of competencies linked increased contractorisation. **Onshore Pipelines**: Sector starting to be more proactive in focussing on strategic topics. **Offshore Pipelines**: Offshore industry less proactive on pipeline aspects and wider variation in standards noted.	Sectors have proactive TU engagement.
Biological agents	• Approx 900 duty holders in the UK. • 7 employers operate Class 4 (the highest risk) laboratories across 8 sites in the UK	Approx 26,000 employees	• Attracts considerable political and public interest eg Ebola, foot and mouth disease, genetically modified organisms • Releases would have significant impacts, including economic	• Risk from the release of high hazard biological agents • Release of animal pathogens with significant animal health impact	• Leadership • Competence • Occupational health • Worker engagement	Industry highly regulated and starting to establish forum to provide greater leadership eg High Containment Biological Agents Leadership Group but greater collective recognition and ownership of issues – as major hazard risks – is required. Compliance with controls for hazardous pathogen containment reduces risk of transmission to workers and subsequent ill-health effects.	HSE to take on licensing responsibility of licensing SAPO sites on behalf of Defra in 2015. Genetically Modified Organisms (Contained Use) Regulations 2014 into force 1 October 2014 consolidating previous regulations.
Mines	• Declining sector for many years. Coal sector still declining with two large mines set to close in 2015. Non-coal mining sector static, with prospects for an increase in number in the next five years	~ 4,500 employees	• Not large enough to support a specialist supply chain • Retains a some strategic value • Despite small workforce, there were a relatively high number of fatalities until 2011 – none since 9/2011	• Multiple major hazards with the potential for catastrophic mining accidents • Ageing infrastructure • Occupational respiratory diseases	• Leadership • Competence • Ageing infrastructure • Occupational health • Worker involvement	Historically poor H&S performance compared to other sectors. Now showing signs of improvement with a much sharper focus on major hazard risk prevention (driven by HSE) Difficult to attract and retain good quality graduate engineers and managers.	

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	• Most remaining mines are SMEs (only five operators employ more than 500 people)					Some of those that remain tend to have 'old fashioned' attitudes towards H & S management so find it difficult to focus on MH identification and risk control.	