Storage

S1 Scope of storage

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S1.1

Clause	Requirement	Guidance
S1.1	Storage includes all activities concerned with moving and holding fertiliser including transit and/or quayside storage. For full definition of storage refer to Appendix 3.	

S1.2

Clause	Requirement	Guidance
S1.2	Handling of Fertilisers 16% Nitrogen or greater For further information, refer to: AIC Guide for the Storage, Handling and Transportation of Ammonium Nitrate Based Fertilisers 2015; HSE INDG230 Storing and handling Ammonium Nitrate and additional guidance within S4.1.	

S2 Storage construction and design

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S2.1

Clause	Requirement	Guidance
S2.1	Buildings must be constructed to provide suitable and sufficient security measures in line with the requirements in G23 and the business process risk assessment study contained within G10. Where used, buildings must be in good order and capable of shielding the products from the weather.	Guidance for building security can be obtained from the National Counter Terrorism Security Office (NaCTSO) website: www.gov.uk/government/publications/secure-your-fertiliser/secure-your-fertiliser

S2.2

Clause	Requirement	Guidance
S2.2	Buildings (including floors) must be constructed and maintained using not- readily combustible materials such as brick, concrete or steel, suitably protected where necessary against corrosion.	Galvanised items such as sheeting, vents and girders should be avoided as far as possible in the construction because of the zinc content which is known to react with AN. Bitumen joints or coatings should be avoided. Where asphalt is used for flooring this should be below 9% bitumen content.

S2.3

Clause	Requirement	Guidance
S2.3	Floors of buildings and external storage yards must be maintained in good condition to prevent significant cracks and holes developing that may become filled with compacted fertiliser.	This could lead to confinement leading to a hazard in the event of a fire.

S2.4

Clause	Requirement	Guidance
S2.4	Where internal drains, pits or channels exist, these must be securely sealed or in-filled with inert material.	In the event of a fire, molten fertiliser could become confined in drains or channels.

S2.5

Clause	Requirement	Guidance
S2.5	Raw materials and finished product must be protected from potential sources of heat and/ or ignition.	This should include consideration of protection against fire or lightning strikes.

S2.6

Clause	Requirement	Guidance
S2.6	Lighting and other electrical installations must be adequately protected from corrosion by means of separation from product and/or sealing.	Consider IP ratings of electrical equipment.

S3 Fire precautions

S3 Fire precautions

S3.1

Clause	Requirement	Guidance
S3.1	A suitable and sufficient supply of water adequate to deal with an outbreak of fire must be available near the building.	This should be discussed with the local Fire and Rescue Service.

S3.2

Clause	Requirement	Guidance
S3.2	A suitable fire detection system and firefighting equipment must be in place where indicated by the Fire Risk Assessment and maintained. [R]	

S3.3

Clause	Requirement	Guidance
S3.3	Equipment and vehicles must be stored/ parked separately from product or packaging.	

S4 Storage operations

S4 Storage operations

S4.1

Clause	Requirement	Guidance
S4.1	Under the Dangerous Substances (Notification And Marking Of Sites) (NAMOS) Regulations 1990, as amended on 6th April 2013, sites which hold certain fertilisers are required to notify the relevant authorities (HSE and/or local Fire and Rescue Service) and display warning signage at site entrances. [R] The Company shall ensure that storage facilities, including outside storage yards and quaysides, have been notified to the relevant authorities and are marked in accordance with legislation and are suitable for the fertiliser raw materials and finished products being stored. [R] The type of storage facility required and the necessary equipment required to operate the facility in a safe and secure manner shall be determined by the business process risk assessment.	Further details may be found here: • NAMOS Guidance: i) INDG467 Dangerous Substances (Notification And Marking Of Sites) (NAMOS) Regulations 1990 https://www.hse.gov.uk/pubns/indg46 7.htm ii) Appendix 7 • Storage Guidance: i) INDG 230 Storing and Handling Ammonium Nitrate www.hse.gov.uk/pubns/indg230.pdf ii)www.hse.gov.uk/explosives/ammoniu m/delivery-guide-inspection.htm • AIC Guide for the storage, handling and transportation of ammonium nitrate based fertilisers 2015 Note: Stores registered and inspected by BASIS or otherwise independently audited against the current version of the Code of Practice for suppliers of pesticides to agriculture, horticulture and forestry (“Yellow Code”) need not be included in the FIAS scope as long as only fertilisers defined as micro nutrients or foliar fertilisers (see Appendix 3 definitions) are held on the site within the secure store.

S4.2

Clause	Requirement	Guidance
S4.2	If fertiliser is unloaded and temporarily stored by the unloader, storage conditions must meet the requirements of both the HSE and the FIAS Standard.	The business process risk assessment should include consideration of potential delays in transit and temporary storage.

S4.3

Clause	Requirement	Guidance
S4.3	Where the Company arranges for the storage of fertiliser raw materials or product in a third party store, the store shall be FIAS certified or a contractor approved as per Clause G16.	

S4.4

Clause	Requirement	Guidance
S4.4	The Company shall ensure that the storage operation is carried out under controlled conditions to ensure that the business processes comply with legislative and customer requirements. These shall include: • contractor control • firefighting equipment • fire prevention • handling of spills • housekeeping • inspections • inventory management • maintenance • product receipt / despatch • product storage and handling • proximity to combustible materials • security • site access control • smoking	

S4.5

Clause	Requirement	Guidance
S4.5	The Company shall identify raw materials and finished products to enable recognition and traceability. The level of traceability for different products will vary. For example, in the case of “relevant” AN it is necessary to identify and trace the finished product to all destinations. For all other products, the principle of “one up/one down” traceability should be applied.	Refer to: • AIC Code of Practice for the Transfer and Traceability of Fertiliser classified as Dangerous Goods • The Ammonium Nitrate Materials (High Nitrogen Content) Safety Regulations 2003

S4.6

Clause	Requirement	Guidance
S4.6	All bulk raw materials or finished products containing 16% nitrogen or greater must be stored on a single floor which should be without basement or cellar except for channels required or product movement.	Where possible bagged material should also be stored in this way.

S4.7

Clause	Requirement	Guidance
S4.7	For bulk or bagged stored raw materials or finished product, there must be sufficient clearance between the top of stacks and any overhead structures such as eaves, beams, light fittings or conveyors, in order to protect product from heat and contamination.	

S5 Operation of bulk storage bays

S5 Operation of bulk storage bays

S5.1

Clause	Requirement	Guidance
S5.1	Storage facilities holding bulk product in separate bays shall identify the material in each bay. Appropriate cleaning of bays at product change shall be undertaken to ensure avoidance of cross contamination. Particular attention shall be paid to product changes in bays containing Ammonium Nitrate based fertilisers. A thorough changeover clean is necessary for bays moving from storing urea to ammonium nitrate based fertilisers or vice versa. [R]	

S6 Material receipt and intake

S6 Material receipt and intake

S6.1

Clause	Requirement	Guidance
S6.1	On receipt, the Company shall verify the origin and conformity of materials and products by checking delivery document information against order requirements. [R]	

S6.2

Clause	Requirement	Guidance
S6.2	Handling systems used for materials and products unloading and transfer to stockholding location, shall be designed and maintained to avoid cross contamination of product.	

S6.3

Clause	Requirement	Guidance
S6.3	Where the Company receives or despatches materials or products classified as dangerous goods, the relevant transport regulations must be met. ADR requires the appointment of a qualified Dangerous Goods Safety Adviser (DGSA). The Company must hold a copy of the DGSA's current certificate and annual report. [R]	The duty of a DGSA is to advise the Company and provide an annual report on all necessary measures to ensure full compliance to ADR.

S6.4

Clause	Requirement	Guidance
S6.4	Upon receipt, the receiving Company shall provide the delivery driver with the signature and full printed name of the Company representative authorised to receive the raw material or fertiliser product. By prior arrangement, other verifiable means of demonstrating correct delivery may be agreed between the receiver and the consignor. [R]	

S7 Material loading and despatch

S7.1

Clause	Requirement	Guidance
S7.1	The Company shall check that the collecting driver possesses: • unique collection reference no. • product description • quantity	The haulier will have been informed at the time of the order what he is expected to carry.

S7.2

Clause	Requirement	Guidance
S7.2	For fertilisers classified as dangerous goods the Company shall check the driver's ADR certificate or card and photographic ID. [R]	

S7.3

Clause	Requirement	Guidance
S7.3	The Company must obtain a signature and printed name of the driver to confirm the load details. [R]	

S7.4

Clause	Requirement	Guidance
S7.4	The Company shall provide suitable and sufficient facilities for safe load securing and sheeting.	For guidance refer to: www.hse.gov.uk/workplacetransport/information/sheeting.htm

S7.5

Clause	Requirement	Guidance
S7.5	The Company must have a process which ensures the correct product and quantity is loaded and the packaging is not damaged or otherwise showing signs of potential failure.	

S7.6

Clause	Requirement	Guidance
S7.6	Bulk fertiliser shall only be loaded into compartments that have been checked to confirm the absence of contaminants or residues from previous loads. Compartments for solid fertiliser shall be fully sheeted.	

S7.7

Clause	Requirement	Guidance
S7.7	Bulk liquid fertiliser shall only be loaded into suitable bulk liquid containers or road tankers.	

S7.8

Clause	Requirement	Guidance
S7.8	In the case of sales of bulk fertilisers, the collecting vehicle must be weighed prior to and after loading to give an accurate weight of product delivered.	The use of assumed tare weights for vehicles is not acceptable. Alternative methods of demonstrating the actual quantity of product loaded may be used.