DEAS 1317: 2026

ICS 73.040

DRAFT EAST AFRICAN STANDARD

Coal — Handling, storage and transportation — Code of Practice

EAST AFRICAN COMMUNITY

First Edition 2026

Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in the East African Community. It is envisaged that through harmonized standardization, trade barriers that are encountered when goods and services are exchanged within the Community will be removed.

The Community has established an East African Standards Committee (EASC) mandated to develop and issue East African Standards (EAS). The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the public and private sector organizations in the community.

East African Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the principles and procedures for development of East African Standards.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

The committee responsible for this document is Technical Committee EASC/TC 029, *Mining*, quarrying and mineral beneficiation.

Attention is drawn to the possibility that some of the elements of this document may be subject of patent rights. EAC shall not be held responsible for identifying any or all such patent rights.

Coal — Handling, storage and transportation — Code of Practice

1 Scope

This Draft East African Standard provides guidelines for coal handling, transportation and storage throughout the entire value chain.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1213-2, Coal and coke — Vocabulary — Part 2: Terms relating to sampling, testing and analysis.

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1213 2:2024 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

3.1
coal self-ignition/coal self-heating
phenomenon of temperature rise in coal stockpiles without applying any external heat.

3.2
coal spontaneous combustion
occurs when the heat generated within a stockpile is greater than the heat dissipated to the external environment, a process in which oxidation reactions take place without the interference of an external heat source.

3.3
coal stockpile
pile or storage location for bulk coal materials, forming part of the bulk coal material handling process.

3.4
coal handling facility
place where coal is handled, including but not limited to coal mining, processing, coal transshipment terminals, electricity generating plants, boiler plants, or steam plants.

4 Coal handling

4.1 Coal Handling Facility

4.1.1 The coal handling facility at the mining site shall be a minimum of 1 000 m away including but not limited to residential areas, educational institutions, medical facilities, religious places, railway lines, major roads, game reserves and wetlands.

4.1.2 For other coal handling facilities, a reduced buffer distance may be considered if an Environmental and Social Impact Assessment has been conducted to demonstrate that mitigation measures, environmental and public health impacts are reduced to acceptable levels and approved by the relevant national authorities.

4.1.3 Coal handling facilities shall be enclosed or roofed and well ventilated.

4.1.4 Coal handling facilities shall be fitted with fire, smoke and dust suppression systems.

4.1.5 The coal handling facility should be secured or fenced to avoid easy access by unauthorized parties and animals.

4.1.6 The coal handling facility should consider all corrective steps for resolving the issue of air pollution, including conducting regular ambient air quality monitoring.

4.2 Transportation trucks/ships

4.2.1 The vehicles or vessels transporting coal shall have sealed bottoms, and be completely and effectively covered with water-proof materials.

4.2.2 Vessels shipping coal should at all times carry on board instruments for measuring temperature, methane, oxygen, and carbon monoxide gas concentrations so that the atmosphere within the cargo space can be monitored.

4.2.3 The instrument should be regularly serviced and calibrated so that it provides reliable data about the atmosphere within the cargo space.

4.2.4 Extra monitoring should be implemented when coal is loaded in holds adjacent to hot areas, such as heated fuel double bottom tanks and engine room bulkheads.

4.2.5 A no-smoking policy should be fully implemented on the ship, and hot work should not be allowed, particularly in the vicinity of cargo compartments.

4.2.6 If the shipper has declared that the cargo is liable to self-heat, then the following additional precautions should be taken:

a) surface ventilation should be kept to a minimum;

b) carbon monoxide concentrations should be regularly measured and recorded; and

c) if the hold temperature exceeds 55°C or the carbon monoxide concentration rises steadily, emergency assistance should be sought.

4.2.7 The vehicles or vessels transporting coal should be equipped with an appropriate and maintained fire extinguisher.

4.3 Storage and handling

4.3.1 Coal piles should not be higher than 5 m and the smallest distance between two adjacent heaps should be 5 m, so that in case of fire, an approach is available.

4.3.2 Coal stockpiles should be properly stacked to reduce the air circulation in the heap to minimize oxidation.

4.3.3 Wet and dry coals should not be stacked together.

4.3.4 Weathered and fresh coals should not be stacked together; similarly, washed coal should not be stacked together with run-of-mine coal.

4.3.5 Proper water drainage should be maintained by contouring the base of coal stockpiles.

4.3.6 Artificial wind barriers should be constructed to minimize the movement of air in the stockpile.

4.3.7 Segregation of coal particles within a stockpile should be avoided. The segregation facilitates the movement of air into and within the stockpile.

4.3.8 Coals of different ranks, particle sizes and propensities for spontaneous combustion should not be stacked together.

4.3.9 Coals that are more prone to self-heat should not be stockpiled in large quantities for an extended period of time.

4.3.10 Coal stockpile shall be kept away from combustible materials; attention should also be paid to any external sources of heat or ignition.

4.3.11 Steam lines and sewage lines should not run under the coal stockpiles.

5 General safety requirements

5.1 A coal handling facility shall have effective fire detection systems, conduct regular fire drills, adequate firefighting measures, and maintain trained fire marshals to respond to fires and related emergencies.

5.2 Coal handling facilities shall establish and implement emergency response plans.

5.3 Coal handling facilities shall maintain trained safety officers to oversee occupational safety and emergency preparedness.

5.4 Coal handling facilities shall provide appropriate PPE to all personnel in accordance with applicable occupational safety standards.

5.5 Facilities shall maintain equipped first aid stations and ensure the availability of trained first aid personnel.

5.6 Coal handling and storage areas shall be fitted with gas monitoring and detection systems for hazardous gases.

5.7 Coal handling facilities shall implement worker medical examinations and surveillance to monitor occupational health risks.

Bibliography

[1] TZS 2867: 2021, Coal — Handling, storage and transportation — Code of practice