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safety of any person, including a danger from fumigant that may be retained in bagged, baled, or other absorbent cargo. If the qualified person determines that there is a danger, the person in charge of the vessel shall take all measures that are, in his discretion, necessary to ensure the health and safety of all persons who are on board the vessel.

§ 147A.25 Entry.

(a) No person may enter the spaces that immediately adjoin the space that is fumigated during fumigation unless entry is for emergency purposes or the space is tested and declared safe for human occupancy by a marine chemist or other qualified person and is inspected under §147A.21(a)(2) or §147A.23(d).

(b) If entry is made for emergency purposes:

(1) No person may enter the space that is fumigated or any adjoining spaces during fumigation unless he wears the personal protection equipment for the fumigant that is in use;

(2) No person may enter the space that is fumigated unless the entry is made by a two person team; and

(3) No person may enter the space that is fumigated unless he wears a lifeline and safety harness and each life-line is tended by a person who is outside the space and who is wearing the personal protection equipment for the fumigant that is in use.

AFTER VENTILATION

§ 147A.31 Removal of fumigation material and warning signs.

After ventilation is completed and a marine chemist or other qualified person determines that there is no danger to the health and safety of any person under §147A.21(d) or §147A.23(g), the person in charge of fumigation, or, if the vessel has left port, the person in charge of the vessel, shall ensure that all warning signs are removed and fumigation containers and materials are removed and disposed of in accordance with the manufacturer's recommendations.

SPECIAL REQUIREMENTS FOR FLAMMABLE FUMIGANTS

§ 147A.41 Person in charge of fumigation; flammable fumigants.

(a) The person in charge of fumigation shall ensure that:

(1) Before the space that is to be fumigated is sealed, it is thoroughly cleaned, and all refuse, oily waste, and other combustible material is removed;

(2) Before fumigation, all fire fighting equipment, including sprinklers and fire pumps, is in operating condition; and

(3) Before and during fumigation, electrical circuits that are in the space that is fumigated are de-energized.

(b) [Reserved]

§ 147A.43 Other sources of ignition; flammable fumigants.

While the space that is fumigated is being sealed or during fumigation, no person may use matches, smoking materials, fires, open flames, or any other source of ignition in any spaces that are not determined to be safe for occupancy under §147A.11(b)(1)(i).

PART 148—CARRIAGE OF SOLID HAZARDOUS MATERIALS IN BULK

Subpart 148.01—General

Sec.

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148.04–15 Petroleum coke, uncalcined; petroleum coke, uncalcined and calcined (mixture).
148.04–17 Petroleum coke, calcined, at 130° F or above.
148.04–19 Tankage, garbage or rough ammoniate, solid.
148.04–20 Sulfur.
148.04–21 Coconut meal pellets (also known as copra pellets).
148.04–23 Unslaked lime in bulk.

AUTHORITY: 49 U.S.C. 5103; 49 CFR 1.46.

SOURCE: CGD 83–067a, 49 FR 16794, Apr. 20, 1984, unless otherwise noted.

Subpart 148.01—General

§ 148.01–1 Purpose and applicability.

(a) This part prescribes regulations under which bulk solid hazardous materials may be transported. Each master, person in charge of the vessel, owner, charterer and agent shall ensure compliance with this part and communicate the requirements of this part to every person performing any function covered by this part. Each person involved in the transportation of bulk solid hazardous materials shall comply with the requirements of this part within the scope of his job responsibilities.

(b) For the purposes of this part, the term *bulk* applies only to cargoes transported on board cargo vessels or barges without mark or count and which are to be directly loaded into the holds of such vessels or barges without containers or wrappers.

(c) For purposes of this part, the term *vessel* means a ''cargo vessel or barge'' which is not exempted under 49 U.S.C. 5107(d).

(d) For the purposes of this part, the term *transported* includes the various operations associated with the cargo transportation such as, loading, offloading, handling, storing, stowing, carrying, conveying, using, etc.

(e) The term *hazardous materials* includes a number of specific classes, the definitions of which are contained in 49 CFR parts 170–189.

[CGD 83–067a, 49 FR 16794, Apr. 20, 1984, as amended by CGD 95–028, 62 FR 51208, Sept. 30, 1997]

EFFECTIVE DATE NOTE: At 62 FR 51208, Sept. 30, 1997, § 148.01–1(c) was revised by CGD 95–028, effective Oct. 30, 1997. For the convenience of the user, the superseded text is set forth as follows:

§ 148.01–1 Purpose and applicability.

* * * * *

(c) For the purposes of this part, the term *vessel* means a ''cargo vessel or barge'' which is not exempted under 49 U.S.C. 1806(b).

* * * * *

§ 148.01–7 Permitted cargoes.

(a) The solid hazardous materials cargoes listed here may be transported in bulk on board vessels if they comply with the regulations in this part. Unlisted cargoes may be transported only if express authority is given by the Commandant in accordance with § 148.01–9 of this subpart.

Shipping name of the hazardous material	Hazard class of the hazardous materials	Characteristic properties of the material
Aluminum dross	Flammable solid	Contact with water may cause self heating and the evolution of flammable gas.
Aluminum nitrate	Oxidizing materials	If involved in a fire will greatly intensify the burning of combustible materials.
Ammonium nitrate containing not more than 80 pct ammonium nitrate and not less than 20 pct calcium carbonate with no more than 2 pct inorganic coating, in the form of uniform and nonsegregatable granular particles.	Oxidizing material	Do.
Ammonium nitrate fertilizer, formulation or mixture containing less than 60 pct ammonium with no organic filler.	.....do	Do.
Ammonium sulfate nitrate	ORM–C	If involved in a fire will intensify the burning of combustible materials.

Shipping name of the hazardous material	Hazard class of the hazardous materials	Characteristic properties of the material
Barium nitrate	Oxidizing material	If involved in a fire will greatly intensify the burning of combustible materials.
Calcium nitrate	.....do	Do.
Charcoal briquets	Flammable solid	Contact with water may cause self heating.
Coconut meal pellets (or copra pellets) containing at least 6 pct and not more than 13 pct moisture and not more than 10 pct residual fat content.	ORM–C	Subject to spontaneous heating by biological decay or by oxidation.
Copra, dry	.....do	Susceptible to spontaneous heating or fire from spark or open flame.
Ferrophosphorus	ORM–A	May evolve poisonous gas (phosphine) in contact with moisture.
Ferrosilicon, containing less than 45 pct or more than 70 pct silicon.	.....do	May evolve poisonous and flammable gases (arsine/phosphine) in contact with water, acids or alkalines.
Ferrous metal borings, shavings, turnings, or cuttings (excluding stainless steel).	ORM–C	Susceptible to spontaneous heating and ignition.
Fishmeal or scrap, ground and pelletized (mixture), containing 6 to 12 pct moisture and no more than 18 pct fat by weight.	.....do	Do.
Lead nitrate	Oxidizing material	If involved in a fire will greatly intensify the burning of combustible materials.
Lime, unslaked	ORM–B	Evolves heat on contact with water.
Magnesium nitrate	Oxidizing material	If involved in fire will greatly intensify the burning of combustible materials.
Petroleum coke, calcined, at 130° F or above	ORM–C	Susceptible to spontaneous heating and ignition.
Petroleum coke, uncalcined	.....do	Do.
Postassium nitrate	Oxidizing material	If involved in a fire will greatly intensify the burning of combustible materials.
Radioactive material, low specific activity (LSA)	Radioactive material	Radiation hazard from ingestion, inhalation and contact with mucous membranes.
Sawdust	ORM–C	Susceptible to fire from sparks or open flames.
Sodium nitrate	Oxidizing material	If involved in a fire will greatly intensify the burning of combustible materials.
Sodium nitrate, potassium nitrate mixture; 67 pct Sodium nitrate, 30 pct Postassium nitrate and not more than 3 percent miscellaneous inorganic compounds.	.....do	Do.
Strontium nitrate (not radioactive)	.....do	Do.
Sulfur	ORM–C	Dust forms explosive mixtures with air.
Tankage, garbage or rough ammoniate solid, containing 7 pct or more moisture.	.....do	Susceptible to spontaneous heating and ignition.

NOTE: Definitions of hazard classes of hazardous materials are found in 49 CFR 171.8 and 49 CFR 173.500.

(b) A mixture or blend of two or more cargoes, one or more of which is listed in paragraph (a) of this section, will be treated as an unlisted cargo and specific authorization by the Commandant, in accordance with §148.01–9, for shipment in bulk is required.

§148.01–9 Filing of special petition for special permit.

(a) A petition for authorization to transport an unlisted cargo or to use alternative procedures must be submitted to the U.S. Coast Guard (G–MSO), Washington, DC 20593, and must contain the following minimum information:

(1) The regulatory provisions involved.

(2) The justification for the proposed shipments or alternative procedure, including any reasons why the current regulations are not appropriate, why the public interest would be served by the proposal, and the basis upon which the proposal would provide an equivalent degree of safety to those shipments conducted in accordance with the current regulations.

(3) A detailed description of the proposal, including when appropriate, drawings, plans, calculations, procedures, test results, previous approvals or permits, and any other supporting information.

(4) The chemical name, common name, hazard classification for properties (chemical and physical), and characteristics of the materials covered by the proposal, including composition and ingredient percentages (specified by weight) if a mixture.

(5) Any relevant shipping or accident experience.

(6) A description of the vessel or vessels to be employed for the shipments and the U.S. ports to be involved.

(7) A statement or recommendation regarding any changes to the regulations which would be desirable to obviate the need for similar permission from the Commandant.

(b) Unless there is a good reason for priority treatment, each proposal is considered in the order in which it is received. To permit timely consideration, proposals should be submitted at least 45 days before the requested effective date.

[CGD 83–067a, 49 FR 16794, Apr. 20, 1984, as amended by CGD 95–072, 60 FR 50465, Sept. 29, 19955; CGD 96–041, 61 FR 50731, Sept. 27, 1996]

§148.01–11 Special permits; standard conditions.

(a) Each person to whom a special permit is issued under the terms of §148.01–9 shall comply with all requirements of this part except as specifically provided by the terms of the special permit.

(b) Unless otherwise specified in the special permit, each shipment made under special permit must comply with the following:

(1) Each shipping paper issued and the dangerous cargo manifest prepared in connection with such shipment must bear the notation ''CG Special Permit No. *'' with the * to be filled in with the assigned special permit number.

(2) Each person to whom a special permit is issued shall furnish a summary of experience to the U.S. Coast Guard (G–MSO), Washington, DC 20593, before the date of expiration of the permit and when any amendment to the special permit is requested. The information must include the number of shipments made, tonnage of each shipment, and what vessel's and U.S. Ports were involved. In addition, an immediate report must be submitted the U.S. Coast Guard (G–MSO) in the event of any casualty, accident, or damaging incident which occurs when transporting solid hazardous materials in bulk under the terms of a special permit.

(3) A copy of the special permit, kept current, and any amendments thereto, must be on board each vessel while transporting solid hazardous materials in bulk under the terms of a special permit. The special permit must be kept with the dangerous cargo manifest (§148.02–3).

(c) Each permit is subject to suspension or revocation for cause by the U.S. Coast Guard before its expiration date.

[CGD 83–067a, 49 FR 16794, Apr. 20, 1984, as amended by CGD 95–072, 60 FR 50465, Sept. 29, 19955; CGD 96–041, 61 FR 50731, Sept. 27, 1996]

§148.01–13 Assignment and certification.

(a) The National Cargo Bureau, Inc., is authorized to assist the U.S. Coast Guard in administering the provisions contained in this part that are applicable to the transportation of solid hazardous materials in bulk on vessels with respect to:

(1) Inspection of vessels for suitability for loading such materials in bulk;

(2) Examination of stowage of such materials loaded in bulk on board vessels;

(3) Making recommendations as to stowage requirements applicable to the transportation of such materials in bulk; and

(4) Issuing of certificates of loading, setting forth that the stowage of such materials in bulk is in accordance with applicable regulations contained in this part.

(b) Certificates of loading from the National Cargo Bureau, Inc., are accepted as evidence of compliance with the applicable provisions of this part with respect to the transportation of solid hazardous materials in bulk on board vessels.

§148.01–15 Right of appeal.

Any person directly affected by a decision or action taken under this part, by or on behalf of the Coast Guard, may appeal therefrom in accordance with subpart 1.03 of this chapter.

[CGD 88–033, 54 FR 50381, Dec. 6, 1989]

Subpart 148.02—Vessel Requirements

§ 148.02–1 Shipping papers.

(a) Carriers may not accept for transportation nor transport by vessel in bulk any solid hazardous materials listed in § 148.01–7(a) of this part, unless the hazardous materials offered for such shipment is accompanied by a shipping paper on which the following information is shown:

(1) The shipping name and hazard class of the hazardous material as listed in § 148.01–7(a) of this part.

(2) The quantity of the hazardous material to be transported.

(3) The name and address of the U.S. shipper or his authorized representative.

(4) A certification which bears the following statement, signed by the shipper or his authorized representative: ''This is to certify that the above-named hazardous material is properly named, prepared, and otherwise in proper condition for bulk shipment by vessel in accordance with the applicable regulations of the U.S. Coast Guard''.

(b) For import shipments, the consignee shall advise the carrier or foreign shipper (consignor) of the applicable U.S. Coast Guard regulations. The carrier or foreign shipper (consignor) shall then furnish the information required in paragraph (a) of this section, as advised by the consignee, either on the shipping papers or dangerous cargo manifest.

(c) The shipping paper required in paragraph (a) of this section must be kept on board the towing vessel along with the dangerous cargo manifest (§ 148.02–3 of this subpart) except when the shipment is by an unmanned barge in which case it may be kept on board the towing vessel. When an unmanned barge is moored, the shipping paper must remain on board the barge, in a readily retrievable location, such as a metal tube attached to the barge.

§ 148.02–3 Dangerous cargo manifest.

(a) Each vessel, except for unmanned barges, transporting solid hazardous materials in bulk under the terms of this part must have on board a dangerous cargo manifest, kept in a conspicuous place on or near the bridge house, on which the following information is entered:

(1) Name of vessel and official number. (If the vessel has no official number, the international radio call sign must be substituted.)

(2) Nationality of vessel.

(3) The name of the hazardous material as listed in § 148.01–7(a) of this part.

(4) The hold(s) in which the material is being transported.

(5) The quantity of the material loaded in each hold.

(6) Date and signature of Master of the vessel's owner or his authorized representative to acknowledge correctness of the dangerous cargo manifest.

(b) [Reserved]

§ 148.02–5 Report of hazardous materials incidents.

In the event of an incident involving hazardous materials, an immediate report must be sent in accordance with 49 CFR 171.15.

Subpart 148.03—Minimum Transportation Requirements

§ 148.03–1 General.

The regulations in this subpart apply to each bulk shipment of a solid hazardous material listed in § 148.01–7 of this part.

§ 148.03–3 Direction and observation.

Loading or off-loading of a solid hazardous material in bulk within the navigable waters of the U.S. must be conducted only under the direction and observation of a person assigned or employed for such duty by the vessel's master or owner or authorized representative.

§ 148.03–5 Prior to loading.

Prior to loading any solid hazardous material in bulk on board a vessel:

(a) Each hold must be thoroughly cleaned of all loose debris and dunnage; but permanent wooden battens or sheathing may remain in the hold; and

(b) Each hold and each bilge of that hold must be dry.

§ 148.03–7 During transport.

During the transport of a solid hazardous material in bulk, except for unmanned vessels, cargo shall be periodically inspected to ensure that there are no undetected increases in temperature in that cargo and that no other changes in the cargo are occurring that might affect the safety of his vessel and the results of these inspections shall be recorded in a log.

§ 148.03–11 Stowage conditions.

(a) Other hazardous materials cargo must not be stowed in the same hold or on deck above a hold in which a solid hazardous material in bulk is loaded.

(b) No explosive Class C, flammable liquid, flammable solid, flammable or nonflammable compressed gas, organic peroxide, or extremely dangerous poison may be stowed in any hold adjacent to a hold in which a solid hazardous material in bulk is loaded.

(c) All explosive Class A and B materials must be stowed longitudinally at least one hold (or an equivalent longitudinal distance if on deck) from any hold in which hazardous material in bulk is loaded.

(d) Combustible cargo must not be stowed in a hold in which a solid hazardous material in bulk is loaded.

§ 148.03–13 Completion of off-loading.

Upon the completion of off-loading of a solid hazardous material in bulk, each hold must be thoroughly cleaned of all residue of such material.

Subpart 148.04—Special Additional Requirements for Certain Material

§ 148.04–1 Radioactive material, Low Specific Activity (LSA).

(a) Authorized materials are limited to:

(1) Uranium or thorium ores and physical or chemical concentrates of such ores;

(2) Uranium metal, natural thorium metal and alloys of these metals; and

(3) Material of low radioactive concentration, if the estimated radioactivity concentration dose not exceed 0.001 millicurie per gram and the contribution from Group I material (See title 49 CFR parts 170 to 189, inclusive) does not exceed 1 percent of the total radioactivity.

(b) Each hold used for the transportation of any of these materials must be surveyed with appropriate radiation-detection instruments after the completion of off-loading. Such holds must not again be used for the transportation of any cargo until the radiation dose rate at any accessible surface is less than 0.5 millirem per hour and until there is no significant removable radioactive surface contamination according to 49 CFR 173.443.

(c) Each hold or barge used for transportation of any of these materials must be effectively closed or covered to prevent dispersal of the material during transportation.

§ 148.04–9 Fishmeal or scrap, ground or pelletized; fishmeal or scrap, ground and pelletized (mixture).

(a) The fishmeal or scrap, ground or pelletized and fishmeal or scrap, ground and pelletized mixture must contain at least 6 percent moisture by weight but not more than 12 percent moisture by weight.

(b) The material must not contain more than 18 percent fat by weight.

(c) At the time of production of the material, it must be treated with at least 400 ppm antioxidant (ethoxyquin); in the case where the material contains more than 12 percent fat by weight, it must be treated with at least 1000 ppm antioxidant (ethoxyquin) at the time of production.

(d) Shipment of the material in bulk must take place within twelve months of the date of production.

(e) The temperature of the material to be loaded must not, at the time of loading exceed 35° C (95° F), or 5° F above ambient temperature, whichever is greater.

(f) The material must contain at least 100 ppm antioxidant (ethoxyquin) at the time of shipment.

(g) Each shipment of the material in bulk must be accompanied by a statement in which the shipper certifies:

(1) The moisture content of the material;

(2) The fat content of the material;

(3) The concentration of antioxidant (ethoxyquin) in the material in ppm at

the time the material is loaded on a vessel in bulk;

(4) Date and place of production of the material; and

(5) The physical state of the material (ground, pelletized, or mixture).

(h) Temperature readings must be taken three times a day and recorded. If the temperature of the cargo exceeds 130° F and continues to increase, ventilation to the hold must be restricted.

§ 148.04–13 Ferrous metal borings, shavings, turnings, or cuttings (excluding stainless steel).

(a) This section applies to the stowage and transportation in bulk of hazardous materials described as ferrous metal borings, shavings, turnings, or cuttings on board vessels (excluding stainless steel). However, unmanned barges on which the article is stowed for or transported on a voyage entirely on the navigable waters of the United States are exempt from the requirements of this section. Ferrous metal borings, shavings, turnings, or cuttings (excluding stainless steel) must not be stowed and transported in bulk unless the following conditions are met:

(1) [Reserved]

(2) All wooden sweat battens, dunnage and debris must be removed from the hold before the article is loaded.

(3) During loading and transporting, the bilge of each hold in which the article is stowed or is to be stowed must be as dry as practicable.

(4) During loading, the article must be compacted in the hold as frequently as practicable with a bulldozer or means that provide equivalent surface compaction. Upon completion of loading, the article must be trimmed to eliminate peaks or mounds and compacted.

(5) Other cargo must not be loaded in a hold containing the article if:

(i) The cargo to be loaded in the same hold with the article is another hazardous material as defined in this part or a combustible material;

(ii) The loading of the article is not completed first; and

(iii) The temperature of the article in the hold is above 130° F or has increased within eight hours before loading of the other cargo.

(6) During loading, the temperature of the article in the pile being loaded must be less than 130° F.

(7) Upon completion of loading, the vessel may not leave the port unless:

(i) The temperature of each article in each hold is less than 150° F and, if the temperature of the article in a hold has been more than 150° F during loading, the temperature of each article has shown a downward trend below 150° F for at least eight hours after completion of loading of the hold; or

(ii) The vessel intends to sail directly to another port that is no further than twelve hours sailing time for the vessel concerned, for the purpose of loading more of the article in bulk or to completely off-load the article, and the temperature of the article is less than 190° F and has shown a downward trend for a least eight hours after completion of loading.

(b) For the purposes of each temperature requirement of this section, the temperature of the article is the highest temperature taken between eight and fourteen inches below the surface at ten-foot intervals over its length and width.

(c) The master or person in charge of a vessel that is loading or transporting the article must ensure that the temperature of the article is taken:

(1) Before loading;

(2) During loading, in each hold and in the pile being loaded at least every twenty-four hours and, if the temperature is rising, as often as necessary to ensure the conditions in this section are met; and

(3) After loading, in each hold at least every twenty-four hours.

(d) During loading, if the temperature of the article in a hold is 200° F or higher, the master or person in charge of the vessel must notify the Coast Guard Captain of the Port and suspend loading until the temperature of the article is less than 190° F.

(e) After loading:

(1) If the temperature of the article is 150° F or above, the master or person in charge must notify the Captain of the Port and ensure that the vessel remains in the port area until the conditions of paragraph (a)(7)(i) of this section are met; or

(2) In the case of a short-duration voyage to which paragraph (a)(7)(ii) of this section applies, if the temperature of the article in a hold is 190° F or above, the master or person in charge must notify the Captain of the Port and ensure that the vessel remains in the port area until the conditions of paragraph (a)(7)(ii) of this section are met.

(f) Except for shipments of the article in bulk which leave the port of loading under the conditions specified in paragraphs (a)(7)(ii) of this section, after the vessel leaves the port, if the temperature of the article in the hold rises above 149° F, the master must notify the nearest Coast Guard Captain of the Port as soon as possible of:

(1) The name, nationality, and position of the vessel;

(2) The most recent temperature taken;

(3) The length of time that the temperature has been above 149° F and the rate of rise, if any;

(4) The port where the article was loaded and the destination of the article;

(5) The last port of call of the vessel and its next port of call;

(6) What action has been taken; and

(7) Whether any other cargo is endangered.

(g) To meet the conditions of this section, the master of a vessel that is transporting the article must ensure that each temperature taken is recorded.

§148.04–15 Petroleum coke, uncalcined; petroleum coke, uncalcined and calcined (mixture).

The material at 130° F or above must not be loaded in bulk on any vessel.

§148.04–17 Petroleum coke, calcined, at 130° F or above.

(a) The requirements of this part do not apply to bulk shipments of petroleum coke, calcined, on any vessel when the material is less than 130° F.

(b) The material must not be loaded in cargo vessels when temperatures exceed 225° F.

(c) Other hazardous materials must not be stowed in any hold adjacent to any other containing this material except as provided in paragraph (d) of this section.

(d) In holds over tanks containing fuel or material having a flashpoint under 200° F, a two-to-three foot layer of the material at a temperature not greater than 110° F must be first loaded into that hold. Only then may the material at 130° F or above be loaded into that hold.

(e) The loading of the material must be as follows:

(1) For shipments in holds over fuel tanks, the loading of the two-to-three foot layer of the material at a temperature not greater than 110° F (as required by paragraph (d) of this section) in these holds must be completed prior to the loading of the material at 130° F or above in any hold of the vessel.

(2) Upon completion of the loading described in paragraph (e)(1) of this section, a two-to-three foot layer of the material at 130° F or above must first be loaded in each hold (including those holds, if any, already containing a layer of the material at a temperature not greater than 110° F) in which the material is to be loaded in accordance with this section.

(3) Upon the completion of the loading of the two-to-three-foot layer of the material at 130° F or above in each hold, as required in paragraph (e)(2) of this section, the normal loading of the material at 130° F or above may proceed to completion.

(f) Personnel must be warned by the Master of the vessel or his authorized representative that calcined petroleum coke loaded and transported under the terms of this section is hot and that injury due to burns is possible.

§148.04–19 Tankage, garbage or rough ammoniate, solid.

(a) The material must contain at least 7 percent moisture by weight.

(b) The material must not be loaded if the temperature in the material, before loading, exceeds 100° F.

§148.04–20 Sulfur.

(a) When sulfur is loaded in a deep hold with general cargo in the 'tween deck hold above the sulfur, a dust proof wooden bulkhead enclosure must be built in the hatchways from the over deck of the lower hold to the weather

deck forming a tight enclosure capable of preventing sulfur dust from entering the 'tween decks during loading.

(b) Ceiling must be made tight to prevent sulfur dust from entering the bilges; any chinking necessary in the way of tank tops or bilges must be made of noncombustible material.

(c) Cowl ventilators serving the hold into which sulfur is being loaded or discharged must be opened to provide circulation of air.

(d) No smoking is permitted on board the vessel and ''No Smoking'' signs must be conspicously posted.

(e) If a metal chute is used it must be grounded using a flexible cable.

(f) Upon completion of loading, the sulfur must be leveled off. Any decks, bulkheads, or overheads containing sulfur dust must be swept clean or washed down.

(g) Other cargo, which is oxygen bearing, must not be stowed in the same hold with sulfur.

(h) An oxygen breathing apparatus, or proper gas mask, must be made available.

(i) A fire hose, preferably supplied with fresh water from a shore supply source, must be available at each hatch through which sulfur is being loaded.

§ 148.04–21 Coconut meal pellets (also known as copra pellets).

(a) Coconut meal pellets;

(1) Must contain at least 6 percent and not more than 13 percent moisture and not more than 10 percent residual fat contents;

(2) Must not be loaded if the temperature exceeds 120° F;

(3) Must not be stowed within 4 feet of any bulkheads subject to artificial heat; and

(4) Must not be overstowed with any other cargo.

(b) A clear space of at least 1 foot must be provided between the top of the cargo and underside of deck beams.

§ 148.04–23 Unslaked lime in bulk.

(a) Unslaked lime in bulk must be transported in unmanned, all steel, double-hulled barges equipped with weathertight hatches or covers. The barge must not carry any other cargo while unslaked lime is on board.

(b) The originating shipping order and transfer shipping paper requirement in § 148.02–1 and the dangerous cargo manifest requirements in § 148.02–3 do not apply to the transportation of unslaked lime under paragraph (a) of this section.

PART 149 [RESERVED]