under a full program, before loading it on its aircraft.

(c) Control. Each aircraft operator operating under a full program or a full all-cargo program must use the procedures in its security program to control cargo that it accepts for transport on an aircraft in a manner that:

(1) Prevents the carriage of any unauthorized person, and any unauthorized explosive, incendiary, and other destructive substance or item in cargo onboard an aircraft.

(2) Prevents unescorted access by persons other than an authorized aircraft operator employee or agent, or persons authorized by the airport operator or host government.

(d) Refusal to transport. Except as otherwise provided in its program, each aircraft operator operating under a full program, a full all-cargo program, or a twelve-five program in an all-cargo operation, must refuse to transport any cargo if the shipper does not consent to a search or inspection of that cargo in accordance with the system prescribed by this part.

(e) Acceptance of cargo only from specified persons. Each aircraft operator operating under a full program or a full all-cargo program may accept cargo to be loaded in the United States for air transportation only from the shipper, an aircraft operator, foreign air carrier, or indirect air carrier operating under a security program under this chapter with a comparable cargo security program, or, in the case of an operator under a full program, from a certified cargo screening facility, as provided in its security program.

(f) Acceptance and screening of cargo outside the United States. For cargo to be loaded on its aircraft outside the United States, each aircraft operator must carry out the requirements of its security program.

(g) Screening of cargo loaded inside the United States by a full program operator. For cargo to be loaded in the United States, each operator under a full program in §1544.101(a) must ensure that all cargo is screened in the United States as follows:

(1) Amount screened. (i) Not later than February 3, 2009, each operator under a full program must ensure that at least 50 percent of its cargo is screened prior to transport on a passenger aircraft.

(ii) Not later than August 3, 2010, each operator under a full program must ensure that 100 percent of its cargo is screened prior to transport on a passenger aircraft.

(2) Methods of screening. For the purposes of this paragraph (g), the aircraft operator must ensure that cargo is screened using a physical examination or non-intrusive method of assessing whether cargo poses a threat to transportation security, as provided in its security program. Such methods may include TSA-approved x-ray systems, explosives detection systems, explosives trace detection, explosives detection canine teams certified by TSA, or a physical search together with manifest verification, or other method approved by TSA.

(3) Limitation on who may conduct screening. Screening must be conducted by the aircraft operator, by another aircraft operator or foreign air carrier operating under a security program under this chapter with a comparable cargo security program, by a certified cargo screening facility in accordance with 49 CFR part 1549, or by TSA.

(4) Verification. The aircraft operator must verify that the chain of custody measures for the screened cargo are intact prior to loading such cargo on aircraft, or must ensure that the cargo is re-screened in accordance with this chapter.

§ 1544.209 Use of metal detection devices.

(a) No aircraft operator may use a metal detection device within the United States or under the aircraft operator’s operational control outside the United States to inspect persons, unless specifically authorized under a security program under this part. No aircraft operator may use such a device contrary to its security program.

(b) Metal detection devices must meet the calibration standards established by TSA.

§ 1544.211 Use of X-ray systems.

(a) TSA authorization required. No aircraft operator may use any X-ray system within the United States or under the aircraft operator’s operational control outside the United States to inspect accessible property or checked baggage, unless specifically authorized under its security program. No aircraft operator may use such a system in a manner contrary to its security program. TSA authorizes aircraft operators to use X-ray systems for inspecting accessible property or checked baggage under a security program if the aircraft operator shows that—

1. The system meets the standards for cabinet X-ray systems primarily for the inspection of baggage issued by the Food and Drug Administration (FDA) and published in 21 CFR 1020.40;

2. A program for initial and recurrent training of operators of the system is established, which includes training in radiation safety, the efficient use of X-ray systems, and the identification of weapons, explosives, and incendiaries; and

3. The system meets the imaging requirements set forth in its security program using the step wedge specified in American Society for Testing Materials (ASTM) Standard F792–88 (Reapproved 1993). This standard is incorporated by reference in paragraph (g) of this section.

(b) Annual radiation survey. No aircraft operator may use any X-ray system unless, within the preceding 12 calendar months, a radiation survey is conducted that shows that the system meets the applicable performance standards in 21 CFR 1020.40.

(c) Radiation survey after installation or moving. No aircraft operator may use any X-ray system after the system has been installed at a screening point or after the system has been moved unless a radiation survey is conducted which shows that the system meets the applicable performance standards in 21 CFR 1020.40. A radiation survey is not required for an X-ray system that is designed and constructed as a mobile unit and the aircraft operator shows that it can be moved without altering its performance.

(d) Defect notice or modification order. No aircraft operator may use any X-ray system that is not in full compliance with any defect notice or modification order issued for that system by the FDA, unless the FDA has advised TSA that the defect or failure to comply does not create a significant risk of injury, including genetic injury, to any person.

(e) Signs and inspection of photographic equipment and film. No aircraft operator may use any X-ray system that is not in full compliance with any defect notice or modification order issued for that system by the FDA, unless the FDA has advised TSA that the defect or failure to comply does not create a significant risk of injury, including genetic injury, to any person.

1. At locations at which an aircraft operator uses an X-ray system to inspect accessible property the aircraft operator must ensure that a sign is posted in a conspicuous place at the screening checkpoint. At locations outside the United States at which a foreign government uses an X-ray system to inspect accessible property the aircraft operator must ensure that a sign is posted in a conspicuous place at the screening checkpoint.

2. At locations at which an aircraft operator or TSA uses an X-ray system to inspect checked baggage the aircraft