### Regulation of the Civil Aviation Board

Issue 92

Re: Transportation of Dangerous Goods by Air

By virtue of Section 15 (6) of the Air Navigation Act B.E. 2497 (1954) and Section 21 of the Air Navigation Act B.E. 2497 (1954) as amended by the Air Navigation Act (No. 11) B.E. 2551 (2008), the Civil Aviation Board, by approval of the Minister of Transport, hereby issues the following requirements in compliance with Annex 18 to the Convention on International Civil Aviation — The Safe Transport of Dangerous Goods by Air - for adherence by the aircraft registrant, air operator, personnel and public aerodrome operator in the interest of safety:

Clause 1 These Requirements shall be in full force and effect from the day following the date on which they are published in the Government Gazette, with the exception of the provision in Chapter 1 Dangerous Goods, Part 3 Public Aerodrome Operators, which shall be effective after the expiry of 90 days from the date on which these Requirements are published in the Government Gazette.

Clause 2 In these Requirements:

"Internal Audit" means the internal audit of the work operations in a unit conducted by an official of that unit, e.g. auditing of the training programs and various procedures in order to ensure the compliance with these Requirements;

"Regulated Postal Authority" means a Thai postal authority or an agency appointed by the Thai postal authority which was granted the Regulated Postal Authority Certificate in accordance with the Requirements of the Civil Aviation Board re: Security of Cargo and Postal by Air; "Technical Instructions" means a technical instruction for safe transport of dangerous goods by air (ICAO DOC 9284) issued periodically by virtue of Council of International Civil Aviation Organization ("ICAO") instructions and certification;

"Packaging" means a container and other components or any necessary materials forming the container in specific nature of use;

"Serious Injury" means an injury a person suffered from an accident such that that person:

(a) receives medical treatment in medical facility more than forty-eight hours within seven days from the date injured;

(b) suffered broken bones without viable wound, except hands phalanges, feet phalanges or broken noses;

(c) suffered abrasion or laceration wounds causing severe bleeding or damages to nerve, muscle or ligament;

(d) suffered injuries to internal organ;

(e) suffered second-degree burn (fat layer-level), third-degree burn (muscle-level) or suffered burn injury to more than five percent of the skin, or;

(f) the examination indicates that person is infected or exposed to dangerous radiation;

"Public Aerodrome Operator" means person operating public aerodrome operator who received certificate of public aerodrome operation under Section 60/1, licensed aerodrome operated by Department of Civil Aviation under Section 60/34, and licensed aerodrome operated by other governmental agencies under Section 60/35;

"Dangerous Goods" means goods or substance transported with an aircraft which may pose health, safety and property risks or environmental risks, as categorized in the technical instructions; "Dangerous Objects" means Dangerous Goods the passenger or the crew members taken aboard the aircraft, whether as carry-on baggage or checked baggage;

"Consignment" means Dangerous Goods at least one package or more transported from one place to another place in the same time by air operator;

"Dangerous Supplies" means Dangerous Goods transported with the aircraft with air waybill;

"UN Number" means a four-digit reference number provided by the United Nations Committee of Experts on the Transport of Dangerous Goods, or specific ID number used in interim upon issuing of UN Number;

"Package" means product which has been sealed and comprises of complete container and other components for transport;

"Overpack" means a covering of at least one or more packages to become a single unit by a single air operator, for the convenience of management and storage of such packages;

"Passenger Aircraft" means an aircraft transporting other people than the flight crew, the employee of air operator acting as officer or entourage to the goods ready to be delivered or other goods;

"Cargo Aircraft" means an aircraft not being Passenger Aircraft which transports supplies or properties;

"Dangerous Goods Incident" means any act not being air Dangerous Goods Accident, which does not require to occur on the aircraft, causing injuries to people, damages to property or environment, fire, dilapidated, damaging or leakage of liquid or radioactive substance, or any evidence showing the packaging of Dangerous Goods is not in conformity of Package Standards, and any event relating to the transportation of Dangerous Goods causing danger to aircraft or passenger; "Dangerous Goods Accident" means any event relating and relevant to transportation of Dangerous Goods by air, causing death, severe injuries and posing material damages to property or related environment;

"Unit Load Device" means any form of loading transportation container, container in aircraft, loading tray with net for aircraft, or loading tray with net above igloo for aircraft.

Chapter 1

Dangerous Goods

Section 1

Air Operator

Clause 3 No air operators may accept dangerous goods for air transport, except;

(1) The shipper is allowed to deliver, and the Air Operator is allowed to transport Dangerous Supplies with the aircraft in accordance with laws governing aerial navigation and other relevant laws, including laws of the point of origin country, country the aircraft transporting Dangerous Supplies is flying over or taking a stopover during course of flight, and of the point of destination;

(2) The shipper has certified that the dangerous goods is not a dangerous supplies forbidden for air transport, and the classification, packing, labeling and marking was declared and the documentation of Dangerous Supplies transport was signed, as specified in Technical Instructions;

(3) An internal audit on transporting of dangerous supplies by air has been conducted in accordance with the manual and form of inspection in conformity with this Regulations, by approval of the Director General; (4) The documentation accompanying transport of dangerous supplies by air was examined to be in conformity with the complete documentation of Dangerous Supplies transport, except explicitly exempted by Technical Instructions;

(5) The package, overpack and container of dangerous supplied was examined to be in compliance with the acceptance procedures specified in the Technical Instruction;

(6) An action concerning loading and stowage has been taken in accordance with Technical Specifications;

(7) The Dangerous Goods Acceptance Checklist has been utilized and developed to serve as a checklist for compliance of Clause (2) and Clause (4)

(8) The Dangerous Goods went through the examination under Plan for Security of Cargo and Postal by Air, as specified in the Requirements of the Civil Aviation Board re: Security of Cargo and Postal by Air;

(9) The Dangerous Goods is a postal of Regulated Postal Authority, and an operation and training procedure in accordance with Technical Instructions has been in place with certification by the Director General;

(10) The safety management mechanism in accordance with the relevant Requirements of Civil Aviation Board are in place.

Clause 4 The Dangerous Goods under Clause 3(2) shall be prepared and packed in accordance with the Technical Instructions. The package shall contain of at least the following nature:

(1) is in good quality and is safely sealed to prevent leakage in normal transport resulting from change in temperature, moisture, air pressure or vibration;

(2) may be properly contained and resistant to chemical or other reaction of that Dangerous Goods

- (3) utilize the material and have structural nature in accordance with the technical instructions;
- (4) satisfy the tests conducted in accordance with the technical instructions;

(5) for the liquid container, such container must be done without leakage under pressure as prescribed in technical instructions;

(6) the inner container shall be safely contained, not sensitive to vibration to prevent container break or leakage and to control movement of the inner container within the outer container during air transport in normal condition. The shock-proof material shall not pose hazardous reaction to such container;

(7) for the container intended to be reused, if the container suffered corrosion or damage, the container shall be examined to prevent contamination to goods contained;

(8) for the used container without cleaning which may cause hazard to such container, the container must be properly sealed and treated in the same dangerous manner the original goods made;

(9) no hazardous substance in hazardous quantity are leaked from the container.

Clause 5 The Package containing Dangerous Goods under Clause 3(2) shall contain necessary and relevant label in accordance with detailed condition in the technical instructions.

In order to comply with the technical instructions, the Package under Clause 1 shall contain names used in English to determine the label with specific details on the package. Each package shall contain manufacturing for specific purposes with relevant labels and in accordance with the specify condition. If there is no label, such information shall contain condition with respect to the details on the package as the minimum.

Clause 6 Subject to the Requirements of Civil Aviation Board concerning air operators' certificate, the air operators transporting dangerous goods shall compile the Dangerous Goods Manual and Operations Manual, Dangerous Good Segment (as part of the Operations Manual) as specified in the Technical Instructions for certification by the Director General.

Upon the Director General having received the manual as specified in the first paragraph, the Director General shall examine the manual, readiness of facility, tools, equipment and officers. Upon having satisfied of the compliance to the Technical Instruction and readiness of facility, tools, equipment and officers that the air operators can comply with the Manual, the Director General shall certify, affix the stamp and sign the name in that Manual to air operators.

The Air Operators shall review the training manual in the first paragraph to be up-to-date and comply with the Technical Instructions, and notify the Director General for approval of the revised Manual before using it.

Clause 7 Subject to the Requirements of Civil Aviation Board concerning air operators' certificate, the air operators shall compile the Training Manual specifying Dangerous Goods Training Programs as specified in the Technical Instructions for certification by the Director General.

Upon the Director General having received the manual as specified in the first paragraph, the Director General shall examine the manual, readiness of facility, tools, equipment, personnel and compliance with the program. Upon having satisfied of the compliance to the Technical Instruction and readiness of facility, tools, equipment and personnel that the air operators can comply with the Plan, the Director General shall certify, affix the stamp and sign the name in that Plan to air operators.

The Air Operators shall ensure its personnel received training of the approved program and review training, and maintain a list of personnel receiving training of the program for examination at all times.

The Air Operators shall review the program in the first paragraph to be up-to-date and comply with the Technical Instructions, and notify the Director General for approval of the revised program before using it.

Clause 8 The Air Operators transporting Dangerous Goods shall ensure and notify the following person as follows:

(1) Inform the pilot in command in writing as soon as practicable before the aircraft departs, as specified in technical instructions;

(2) Inform the flight crew member on action on their own duty and responsibility on transport of Dangerous Goods and procedures for emergency situation with the dangerous goods as specified in Operations Manual certified from the competent officials;

(3) People other than (1) and (2) working in relation to transport of Dangerous Goods shall be informed in order for them to act on their own duty and responsibility and procedures for emergency situation with the dangerous goods;

(4) The relevant public aerodrome operator shall be informed under the procedure defined by the Director General

Clause 9 No air operators may accept dangerous goods for transport in the passenger cabin or cockpit abroad the aircraft, except permitted by the technical instructions.

Clause 10 The Air Operators shall ensure loading and stowage of dangerous goods and freight containers containing radioactive substances on the aircraft to be in compliance with the technical instructions;

Clause 11 The Air Operators shall conduct inspection for damage or leakage before accepting dangerous goods for transport, as follows:

(1) The package and Overpack containing dangerous goods and freight containers of radioactive substances shall went through examination of leakage witnesses or damage before loading onto the aircraft, or before loading into the container. No package, overpack and freight containers containing leakage or damages shall be loaded onto the aircraft in any cases;

(2) The unit load device shall not be loaded onto the aircraft except if the device has been examined to free from any evidences of leakage or damages to any dangerous goods in that device;

(3) Upon any package containing dangerous goods aboard the aircraft suffered leakage or damage, the Air Operator shall unload the package from the aircraft or take steps to move such package under management of competent authority, and shall ensure that the remaining part are in suitable condition to continue air transport without danger to the aircraft or passenger, and the remaining package aboard the aircraft are not suffered from such dangerous goods;

(4) The package and Overpack containing dangerous goods and freight containers of radioactive substances shall went through examination of damage or leakage while unloading from the aircraft or from the unit load device. If there is evidence of damage or leakage, a damage or contamination on the aircraft at the area placing such dangerous goods or unit load device shall be examined;

Clause 12 The Air Operators shall conduct removal of dangerous goods contamination resulting from the leaked or damaged package to the safe place without delay, and shall ensure the remaining cargo on the aircraft is capable of continuing the transport without dangerous to the aircraft or passenger. In case of contamination of radioactive substance, the Air Operators shall not put the aircraft into service until the radioactive level dropped to the secured level as prescribed in technical instructions.

Clause 13 The Air Operators shall conduct separation and segregation of dangerous goods as follows:

(1) The package containing dangerous goods which may pose greatly dangerous chemical reaction to other package shall not be placed next to other package, or in the position the chemical reaction may occur upon leakage;

(2) The package contain poisonous or infectious substances shall be placed on the aircraft in accordance with the technical instructions;

(3) The package containing radioactive substance shall be place on the aircraft by segregating from people, living animal and undeveloped film in accordance with the technical instructions;

Clause 14 When the dangerous Goods are loaded onto the aircraft, the Air Operators shall prevent damages to such dangerous goods and shall place and secure the goods to ensure any movement inflight which may cause directional or positional changes to the package. For the package containing radioactive substances, a due care to particular radioactive substances must be exercised to ensure the separation and segregation is complied with Clause 13 (3) of this requirement at all times. Clause 15 The Air Operators shall affix the label "Cargo Aircraft Only" to the dangerous goods package as specified in the technical instructions.

Clause 16 Upon emergency situation occurring in-flight, the pilot in command shall notify the Air Traffic Control service and airports the aircraft is to make a landing of dangerous goods transported with the aircraft, as specified in the technical instructions, as soon as practicable.

Clause 17 Upon the aircraft suffer an accident or serious incident which may caused by the transported Dangerous Goods, the air operators shall notify the information on Dangerous Goods which match those declared to the pilot in command in writing to the emergency services responsible to accident or serious incident without delay; the same shall be report to Department of Civil Aviation and responsible agency of the state where the accident or serious incident occurred as soon as practicable.

If the aircraft suffered the incident, the air operators shall take action under the first paragraph upon report from the Department of Civil Aviation and responsible agency of the state where the serious incident occurred.

### Section 2

## **Private Aircraft**

Clause 18 If the private aircraft is allowed to take dangerous goods on board the aircraft under the law governing aerial navigation, the provision in Section 1: Air Operators of Chapter 1: Dangerous Goods in this requirements shall apply *mutatis mutandis*.

## Section 3

**Public Aerodrome Operator** 

Clause 19 The public aerodrome operators shall compile the Dangerous Goods Training Programs as specified in the Technical Instructions for certification by the Director General.

Upon the Director General having received the Program as specified in the first paragraph, the Director General shall examine the manual, readiness of facility, tools, equipment, personnel and compliance with the program. Upon having satisfied of the compliance to the Technical Instruction and readiness of facility, tools, equipment and personnel that the public aerodrome operator can comply with the Plan, the Director General shall certify, affix the stamp and sign the name in that Plan to public aerodrome operator.

The public aerodrome operator shall provide officers acting in relation to transport of dangerous goods to the training of the approved program and periodic review training, and maintain a list of personnel receiving training of the program for examination at all times.

The public aerodrome operator shall review the program in the first paragraph to be up-to-date and comply with the Technical Instructions and notify the Director General for approval of the revised program before using it.

Clause 20 Upon accident or incident occurring as a result of dangerous goods which pose or may pose security hazard at the public airport, the public airport operator shall notify the Department of Civil Aviation of details of the said accident or incident without delay.

Clause 21 The Public Aerodrome Operator shall ensure a mechanism to notify its emergency services of the position of the aircraft carrying dangerous goods in its management of aircraft apron.

Clause 22 The Public Aerodrome Operator shall conduct the internal audit on transporting of dangerous goods in accordance with the manual and audit form in line with this requirement, by approval of Director General.

Clause 23 The Public Aerodrome Operator shall ensure a specific location for storage of dangerous goods are in place in line with the airport operation procedure and safety management system, as specified by the relevant requirement of civil aviation board.

# Chapter 2

# **Dangerous Objects**

Clause 24 No passengers or crew members may took the dangerous objects aboard the aircraft except they complied with the technical instructions or other regulations prescribed by the Director General.

Clause 25 The air operator, private aircraft operator and public aerodrome operator shall treat the dangerous objects in a manner specified in the technical instructions

Clause 26 The air operators and public aerodrome operator shall put notification prohibiting passengers bringing or taking dangerous objects under this requirement with the aircraft at places relevant to them that can be clearly visible, such as any point of ticket sale, check-in counter, boarding gate and passenger inspection spot.

Given on 22 May 2015 Air Chief Marshal Prajin Juntong Minister of Transport Chairman of the Civil Aviation Board