

# Guidelines on Compliance Certification for Launch Site

Revised first edition dated March 30, 2018

National Space Policy Secretariat, Cabinet Office

History of revisions

Edition	Date of establishment	Detail of revisions
First Edition	November 15, 2017	New establishment
Revised first edition	March 30, 2018	Full revision

## Table of Content

1. Introduction.....	2
2. Governing documents.....	2
3. Definitions of terms.....	2
4. Scope of Application .....	4
5. Outline of process .....	4
5.1. Outline of process (from application to grant of certification).....	4
5.2. Standard period of time for process .....	5
6. Compliance certification for launch site.....	5
6.1. Ensuring of restricted areas and measures to prevent entry of third parties .....	6
6.2. Installation of launcher .....	7
6.3. Safety requirements of ignition device, etc. ....	9
6.3.1. Devices which fall under the category of ignition device .....	10
6.3.2. Two-failure tolerance .....	10
6.3.3. Measures to prevent inadvertent ignition of pyrotechnic devices .....	11
6.4. Radio equipment for flight safety operation.....	11
6.4.1 General.....	12
6.4.2. Consideration of delay time.....	13
6.5. Reliability and redundancy of safety-critical systems, etc. ....	13
6.5.1. Safety critical systems, etc. ....	14
6.5.2. Reliability and redundancy .....	14
7. Authorization, etc. to make change .....	16
7.1. Application for authorization of change.....	17
7.1.1. Scope of application for authorization related to change.....	17
7.1.2. Specific examples for application for authorization related to change.....	17
7.2. Notification of change.....	17
7.2.1. Scope of notification of change .....	17
7.2.2. Specific examples for notification of change .....	17
8. Review of Guidelines.....	18

## **1. Introduction**

These Guidelines are intended to provide guidance to the concept of compliance and specific examples related to the review standards on a compliance certification for launch site as provided in the Review Standards and Standard Period of Time for Process Relating to Procedures under the Act on Launching of Spacecraft, etc. and Control of Spacecraft.

For the development of these Guidelines, domestic and foreign standards (e.g. ISO, FAA standards) were consulted with.

## **2. Governing documents**

For these governing documents, consult with the latest versions as of the time of application.

- (1) Act on Launching of Spacecraft, etc. and Control of Spacecraft (Act No. 76 of 2016)
- (2) Regulation for Enforcement of the Act on Launching of Spacecraft, etc. and Control of Spacecraft (Cabinet Office Order No. 50 of 2017)
- (3) Review Standards and Standard Period of Time for Process Relating to Procedures under the Act on Launching of Spacecraft, etc. and Control of Spacecraft

## **3. Definitions of terms**

Unless otherwise provided, the terms used in these Guidelines have the meanings as defined in the Act and Regulation. The terms and abbreviations as used in these Guidelines have the following meanings:

- Act  
Act on Launching of Spacecraft, etc. and Control of Spacecraft (Act No. 76 of 2016)
- Regulation  
Regulation for Enforcement of the Act on Launching of Spacecraft, etc. and Control of Spacecraft (Cabinet Office Order No. 50 of 2017)
- Review Standards  
Review Standards and Standard Processing Relating to Procedures under the Act on Launching of Spacecraft, etc. and Control of Spacecraft

- **Spacecraft**  
An artificial object which is used by putting it into Earth orbit or beyond or placed on a celestial body other than the Earth. More concretely, a spacecraft means an earth orbiting spacecraft including an earth observatory satellite and positioning satellite, a geostationary satellite, an explorer navigating in outer space including the area beyond a geostationary orbit, an explorer engaged in activities in the vicinity or on the ground surface or other celestial body (e.g. rover), reentry vehicle and dummy mass.
  
- **Spacecraft, etc.**  
A spacecraft and a vehicle for launching a spacecraft
  
- **Launch of spacecraft, etc.**  
Loading a spacecraft onto a launch vehicle , lifting off and accelerating the launch vehicle until it reaches a certain speed and altitude, and separating the spacecraft at that point, using a launch site managed and operated by the person or another person.
  
- **Flight termination measures**  
Destruction of a launch vehicle or any other measures to terminate the flight in the case of the deviation of the launch vehicle from the planned trajectory or any other anomalies
  
- **Flight safety operation**  
Measures to be taken until the completion of launch of a spacecraft, etc. so as to minimize the possibility of damage caused to human life or body, or property on the ground water surface, an aircraft in flight or other flying objects caused by the fall, collision or explosion of a spacecraft, etc. in whole or part, that has not been successfully separated from the launch vehicle and to ensure public safety.
  
- **Radio equipment**  
Electrical equipment for transmitting or receiving codes using electromagnetic waves, and a computer connected to the equipment via telecommunication lines
  
- **Launcher**

A device equipped with a function of lifting off a launch vehicle.

- Launch site

A facility equipped with a function of lifting off a launch vehicle.

- Failure, etc.

Failure, unexpected activation or erroneous operation

- Failure tolerance

Capability of ensuring the safety of areas in the vicinity of the trajectory and launch site of the launch vehicle even in case of failure, etc.

Two-failure tolerance means the capability of ensuring the safety of areas in the vicinity of the trajectory and launch site in relation to any combination of two failures, etc.

- ISO

International Organization for Standardization

- FAA

Federal Aviation Administration

#### **4. Scope of Application**

A person who intends to obtain a compliance certification for a launch site may obtain a compliance certification if the launch site conforms to the type-specific site safety standard.

In this case, the relevant launch vehicle must have received a type certification.

The person who intends to obtain a compliance certification is not required to be the person who obtained the type certification or the person who intends to implement the launching of spacecraft, etc.

#### **5. Outline of process**

##### **5.1. Outline of process (from application to grant of certification)**

An applicant is recommended to hold a prior discussion with the National Space Policy Secretariat of the Cabinet Office of Japan (hereinafter referred to as the "NSPS") from the preparation phase of the application, so as to avoid any duplicated procedures. Officials of the NSPS may enter the offices, etc. of the applicant and

conduct a verification, etc. as deemed necessary for facilitating the review.

## 5.2. Standard period of time for process

1-3 months

The standard period of time for process is the length of time generally required for processing an application without any omission or other defect in the application documents.

An applicant may file an application or seek a prior consultation any time. An applicant is recommended to submit an application allowing for sufficient time before the slated time of using the launch site.

In the case of an application for a compliance certification for launch site that proved to be appropriate in the past, for example, a launch site which obtained permission relating to launching using the same launch site in the past, it is highly possible that the time required for the review will be accelerated. In order to prepare application documents in an effective way, the applicant is recommended to consult with the NSPS in advance.

## 6. Compliance certification for launch site

### Article 6 of the Act (Requirements for Permission)

- (ii) the launch site is equipped with radio equipment set forth in the following items
  - (a) and (b) or otherwise complies with the standard specified by Cabinet Office Order according to the type of launch vehicle as the safety standard concerning a launch site for ensuring the safety of the vicinity of the trajectory and launch site of the launch vehicle (hereinafter referred to as a "type-specific site safety standard"), or the launch site has obtained a compliance certification under Article 16, paragraph (1):
    - (a) radio equipment equipped with a function to detect signals indicating the position, attitude and condition of a launch vehicle transmitted by radio equipment onboard the launch vehicle either directly or by receiving it via other radio equipment using electromagnetic waves, or to detect the position of the launch vehicle by transmitting signals to the launch vehicle either directly or via other radio equipment and then receiving the reflected signals either directly or via other radio equipment;
    - (b) radio equipment equipped with a function of transmitting signals necessary

for the destruction of a launch vehicle or any other measures to terminate the flight in the case of the deviation of the launch vehicle from the scheduled trajectory or any other extraordinary circumstances (referred to as "flight termination measures" in the following item and Article 16, paragraph (2), item (iv)) to the radio equipment onboard the launch vehicle either directly or via other radio equipment using electromagnetic waves;

### 6.1. Ensuring of restricted areas and measures to prevent entry of third parties

#### Article 8 of the Regulation (Type-specific Site Safety Standard)

- (i) that the launch site is located at a place capable of ensuring the safety of the vicinity of the launch site, and that appropriate safety measures have been taken for important equipment, etc.;

#### Review Standards

1. Securing of restricted areas and measures to prevent entry of third parties
    - The area is located in a place capable of securing an appropriate restricted area depending on the phases of the launch operation period.
    - The applicant makes efforts to establish the security measures for facilities, devices, information, etc. which would be important for the security of launch.
- The area must be located at a place which enables the securing of the restricted area satisfying the condition under 6.3.6 of the Guidelines on Permission Related to Launching of Spacecraft, etc., considering the spacecraft to be loaded. In addition, for hazardous products, the functions related to equipment of facility related to the safety measures provided in 6.3.1.1 of the Guidelines must be satisfied.
- Security measures must be taken as appropriate to the facility, device and information which are important for the safety, in accordance with 6.3.1.2 of the Guidelines on Permission Related to Launching of Spacecraft, etc. These measures must be capable of being maintained for the necessary period.
- The specific measures include fences, entry and exit control system, surveillance by a security guard and the control of access to communication networks.
- The facility, device and information which are important for the safety relate to the following:
- (1) Places of storage of hazardous materials including explosives
  - (2) Buildings for assembling launch vehicles and spacecraft



(3) Vicinity of launch pad

(4) Buildings for flight safety operation

For example, the places for storage of hazardous product include the places of receipt, use and disposal.

Establish procedures to enable the confirmation, before the site is used for the launch, that there was no change in the status of compliance with the Standard even during the period for which the security measures were not taken.

Example: There has been no alteration of software for flight safety operation, or there are no unknown objects or unknown passageways.

## 6.2. Installation of launcher

### Article 8 of the Regulation (Type-specific Site Safety Standard)

(ii) that the launch site is capable of installing devices for ensuring the appropriate lift-off while ensuring the safety of the trajectory of the launch vehicle and the surrounding area;

### Review Standards

#### 2. Installation of launcher

- The launch site is capable of being equipped with a permanent or portable launcher appropriate for launch vehicles.
- The launcher is capable of implementing the appropriate lift-off of a launch vehicle in a way to ensure the safety of the vicinity of the trajectory and launch site.

A launcher means a device in the status that enables the lift off function of a launch vehicle. For example, a movable launcher itself that conveys an H-IIA launch vehicle from the vehicle assembly building to the launch pad is not a launcher; however, once it is placed at the launch pad and all the necessary piping and electric systems relating to the launch are connected, then the entire system is considered to be a launcher.

(1) A launcher compatible with a launch vehicle

A launcher must be equipped with mechanical, fluidic, and electric interface functions that are compatible with a launch vehicle which received a type certification and the functions relating to safety corresponding to the properties of the launch vehicle (type of propellant, control system of vehicle, etc.) must be

verified by appropriate methods before the launch of the vehicle. Examples of main items concerning functions for safety are as follows. However, this does not apply to cases where the following items are not necessarily required to be considered due to the means for termination of flight, etc.

- (i) A launcher must have sufficient strength and stiffness to safely hold the supporting system of the launcher standing up straight at the inspection and lift off of the launch vehicle under the natural condition of the launching site.
- (ii) The mechanism and structure of the launcher must be designed so that it does not give any hazardous impact on the launch vehicle in relation to its safety at the events of separation of lift off place or launcher.
- (iii) The equipment for supplying high pressure gas and liquid propellant must be able to supply the launch vehicle with high pressure gas and liquid propellant under appropriate pressure, temperature and flux that are in conformance with the supplying condition of the vehicle, and be able to exhaust liquid and gas that are emitted from tanks of propellant of the vehicle and containers of high pressure gas, etc. in a safe manner, and these equipment must not pose any risk of danger to the launch vehicle.
- (iv) The equipment for supplying high pressure gas and liquid propellant that are to be separated at the lift off must not give any hazardous impact on the launch vehicle in relation to its safety due to emission of residual fluid in the systems at the lift off.

(2) Ensuring the safety of the area in the vicinity of trajectory and the launch site

(i) Execution of safe launch

- The soundness of the launcher must be capable of being monitored after a launch vehicle is placed on the launcher, the launch sequence can be suspended if it is determined impossible to continue the lift off sequence during the lift off countdown sequence, and the safety measures such as turning off onboard pyrotechnic relating devices and exhaustion of liquid fuel etc. can be conducted (also consider 6.3.2).
- The launcher must be capable of executing a launch in an appropriate way while ensuring the safety of the area in the vicinity of the trajectory and the launch site, for example, not inducing anomalies in the trajectory caused by high temperature and wind pressure generated by blast upon the lift off.
- The launch must be capable of being set up and confirmed with sufficient accuracy, and must not cause any unacceptable errors induced by sudden

strong wind or shock by launch that are within expectations, so that any mistakes in setting parameters of azimuth and elevation of launch vehicle in aerodynamic stable flight phase would not induce any trouble related to safety.

(ii) Prevention of accidents at launch pad

- A launcher must be located in the area where hazardous products including propellant and pyrotechnic devices would not be exposed to high temperature and wind pressure induced by blast upon lift off. In addition, flammable materials must not be placed nearby the launcher; or remote or automatic firefighting must be executed immediately after the lift off.
- Take measures to prevent any damage to a launch vehicle (including supply piping of propellant if propellant is supplied at the launch pad) due to a direct lightning strike by installing lightning rods. In addition, minimize the impact of nearby lightning and prevent accidents caused by static electricity by appropriate earth grounding. In cases where the equivalent security is to be ensured by operation, describe the method.

**6.3. Safety requirements of ignition device, etc.**

Article 8 of the Regulation (Type-specific Site Safety Standard)

(iii) that measures have been taken to ensure the safety of the vicinity of the trajectory and launch site of the launch vehicle even in the event of a fault, etc. of important systems, etc. relating to an ignition device, etc. used for the launch vehicle;

Review Standards

3. Safety requirement for ignition device, etc.

- Measures are taken to ensure the safety of the vicinity of the trajectory and launch site of the launch vehicle in case of any combinations of two types of failure, etc. This measure may also include the measures to be taken in relation to the launch vehicle.
- Among the measures taken, two or more measures are always capable of being monitored.
- Necessary measures have been taken to prevent any accidental ignition of pyrotechnics caused by stray lightning, etc.
- Measures have been taken to prevent the easy occurrence of failures, etc. caused by the effect of ambient electromagnetic waves.

### **6.3.1. Devices which fall under the category of ignition device**

- Systems for igniting liquid propellant rocket and solid propellant rocket
- Flight termination system (a command destruct system, destruction mechanism for inadvertent separation)
- Separation systems (inter-stage separation system, fairing separation system, separation systems for auxiliary booster, etc.)

For the abovementioned systems, only the case where the launch site constitutes a part of the system is applicable, including the case where the events are executed by transmitting commands. However, the flight termination system and the separation system that are considered not to relate to ensuring the safety of the area in the vicinity of the trajectory and the launch site are excluded. In relation to the flight termination system of the launch vehicle after the lift off, the measures described in 6.5 can be taken into account.

### **6.3.2. Two-failure tolerance**

Three or more independent measures must be included to satisfy the two-failure tolerance requirement. The status of the two or more measures must be always capable of being monitored. The measures may include a measure taken at the launch vehicle. Specific examples of the measures are as follows.

- Physical inhibiting using connectors
- Blocking of input signals using software
- Measures to prevent valves of liquid propellant rocket from relieving. In cases where, for example, batteries for driving valves and for electric circuit of driving signals are independent, these may be considered as two measures.
- Restriction of third party entry to restricted areas (only before the lift-off of the launch vehicle)
- Emergency stop in case of detection of anomalies

In the case of implementing measures using software, describe the plan and results of verification in addition to the explanation of the operation of the software.

If it is inevitable to invalidate such measures for the launch, it is permitted to invalidate the measures immediately before the lift off. However, it is necessary to ensure that the measures can be invalidated only when the soundness thereof is confirmed and it is confirmed that an accident due to the invalidation can be avoided by evacuating people in the surrounding areas. Devise a clear plan for invalidating

the measures for the launch vehicle, and if the means of confirmation are implemented in the launch site, necessary measures are to be included in the design. In addition, pay consideration such that the measure may be validated and reverted to a safe condition if any problem is found at any time.

As for the measures that are not required to be invalidated before the lift off, including the ignition of the upper stage engine, such measures must be designed so that they will be invalidated immediately before the execution of the relevant event to the possible extent.

### **6.3.3. Measures to prevent inadvertent ignition of pyrotechnic devices**

The following is the example of shielding of pyrotechnic devices:

- (1) Electrical firing circuits must be completely shielded or shielded from the initiating ordnance back to a point in the firing circuit at which filters or absorptive devices eliminate RF entry into the shielded portion of the system.
- (2) Shielding must provide a minimum of 85 percent of coverage ratio.
- (3) There must be no gaps or discontinuities in the termination at the back faces of the connectors.
- (4) Shields terminated at a connection must be joined around the full 360 degree circumference of the shield.
- (5) All metallic parts of the initiating ordnance subsystem that are physically connected must be bonded with a DC resistance of less than 2.5mΩ.
- (6) Firing, control, and monitor circuits must all be shielded from each other.
- (7) Each circuit must be designed so that the induced power of the firing circuit of the pyrotechnic device by electromagnetic environment is no greater than 20dB below the initiator's firing level.

### **6.4. Radio equipment for flight safety operation**

#### Article 8 of the Regulation (Type-specific Site Safety Standard)

- (iv) that the launch site is capable of installing the following radio equipment which are necessary for the implementation of flight safety operation (meaning the measures to be taken until the completion of launching of spacecraft, etc. so as to ensure public safety, so as to minimize the possibility of damage to human life or person, or properties on the ground surface or water surface, or aircraft in flight or other flying objects caused by the fall, collision or explosion of the spacecraft, etc. in whole or part, that has not been successfully separated; the same applies hereinafter) and flight termination measures; provided, however, that this does

not apply to the case where any other place equipped with the following radio equipment for the implementation of the flight safety operation or flight termination measures is to be used:

- (a) radio equipment equipped with a function to detect signals indicating the position, attitude and condition of the launch vehicle by the use of electromagnetic waves or other means; or
- (b) if the launch vehicle implements flight termination measures by receiving signals, radio equipment equipped with a function for transmitting signals necessary for the implementation of flight termination measures; and

#### Review Standards

##### 4. Radio equipment for flight safety operation

- The launch site is capable of being equipped with permanent or portable radio equipment having a function to detect a signal indicating the position, attitude and condition of the launch vehicle by the use of electromagnetic waves or other means; provided, however, that this does not apply if another place is used which is equipped with radio equipment having the same functions.
- When the flight termination measures of a launch vehicle are to be implemented by way of receiving signals, the launch site is capable of being equipped with permanent or portable radio equipment having a function to transmit a signal necessary for the implementation of the flight termination measures to the radio equipment of the launch vehicle directly or via other radio equipment; provided, however, that this does not apply if another place is used which is equipped with radio equipment having the same functions.

#### **6.4.1 General**

- The launch site must be capable of being equipped with radio equipment to receive a signal indicating the position, etc. of the launch vehicle, whether the main functions for flight safety operation and flight termination measures are installed on the vehicle. However, this does not apply to the case where the applicant uses other places equipped with radio equipment having these functions. Signals transmitted from a launch vehicle may be transmitted via a spacecraft, an aircraft, a balloon, etc. In this case, describe the communication route such as the spacecraft, the aircraft, or the balloon, etc. that relays the information.

- In a case of executing a flight termination by receiving a signal transmitted from the launch site, the launch site must be capable of being equipped with radio equipment for transmitting the signal necessary for the flight termination measure. However, this does not apply to the case where the applicant uses other places equipped with radio equipment having the same function. Signals transmitted from a launch vehicle may be transmitted via a spacecraft, an aircraft, a balloon, etc. In this case, describe the communication route such as the spacecraft, the aircraft, or the balloon, etc. that relays the information.
  
- If radio equipment in other places is to be used for receiving a signal indicating the position, etc. of the launch vehicle and for transmitting a signal necessary for the flight termination measure, state information on the radio equipment.

#### **6.4.2. Consideration of delay time**

- In cases where a flight termination is to be executed by receiving a signal transmitted from the ground:  
Describe the safety, including delay in time for receiving a signal indicating the position, etc. of the launch vehicle necessary for the decision to execute flight termination, time for transmitting a signal for flight termination, time required for computer processing and time required for decision-making by ground staff members.
  
- In case where a flight termination is executed based on the decision made by the airborne system:  
No particularly applicable subjects in relation to a launch site.

#### **6.5. Reliability and redundancy of safety-critical systems, etc.**

Article 8 of the Regulation (Type-specific Site Safety Standard)

- (v) that, for the important systems, etc. which constitute the function to ensure the safety of the vicinity of the trajectory and launch site of the launch vehicle, measures have been taken to ensure the reliability and multiplexing sufficient for the system to function even in the event of a fault, etc.

Review Standards

- 5. Reliability and redundancy of safety-critical systems, etc.
  - For safety-critical systems, etc. which constitute the functions to ensure the safety

of the vicinity of the trajectory and launch site by flight termination measures of a launch vehicle, the reliability is 0.999 or more at a 95% confidence or an equivalent level, and the systems, etc. are fully redundant so that they will function even in cases of failure, etc.

#### **6.5.1. Safety critical systems, etc.**

Safety critical systems, etc. constituting the functions to ensure the safety of the vicinity of the trajectory and launch site of the launch vehicle relate to the following. However, systems, etc. to be used only for phases in which flight termination is considered unnecessary (e.g. antenna) are excluded.

- In case where a flight termination is executed by way of receiving a signal transmitted from the ground:
  - System, etc. for receiving, processing and displaying information including position of launch vehicle which are necessary for the determination of execution of flight termination.
  - System, etc. for transmitting a command for flight termination to the launch vehicle.
  
- In case where a flight termination is executed based on the decision made by the airborne system:

No particularly applicable subjects in relation to a launch site.

The term "etc." contained in "system, etc." used in this section means that the means of achievement of the relevant function is a component or parts, not a different system.

#### **6.5.2. Reliability and redundancy**

The systems identified in 6.5.1 must be designed so as not to lose safety-related important functions caused by a single failure by ensuring the redundancy for the secure operation of the system, etc.

Also the reliability of the entire system including the redundancy must be assessed if it satisfies the criteria of 0.999 or more in relation to one of the following levels and the evidence of the assessment must be submitted.

- (1) Confidence level of 95%: Specific examples of statistically accurate reliability



(empirical reliability) are as follows:

- Empirical reliability derived from a number of experiments.
  - For purchased materials, reliability with confidence level of 95% as indicated by the supplier or reliability converted to the value of confidence level of 95% in the case where the supplier indicates the confidence level of other value than 95%.
- (2) Equivalent level: Specific examples of reliability (design reliability) that are considered to be equivalent in terms of engineering are as follows:
- Reliability converted to the value of confidence level of 95% from those derived from MIL Handbook (MIL-HDBK-217F Notice 2, DEPARTMENT OF DEFENSE HANDBOOK, Reliability Prediction of Electronic Equipment, 28 February 1995), etc. Each coefficient used for calculation of reliability can be optimized based on the assessment of the validity of the values.
  - For purchased materials that are widely distributed in the market, a reliability derived from the number of fault, operational experience, etc. (appropriate margin must be considered if necessary)
  - For structure materials, a reliability derived from the distribution of strength of the material with confidence level of 95% and conditions of use, etc.

As an example, the following is the concept of the criteria of reliability and redundancy in cases where a launch vehicle has two or more flight termination means including a command destruct and thrust termination.

- If flight termination measure A can be enabled for the entire phase requiring flight termination, the flight termination measure A satisfies the requirements for the criteria of reliability and redundancy.
- If the launch vehicle has flight termination measures A and B for the phases requiring flight termination, and they can be enabled in the different phases, respectively, both flight termination measures A and B satisfy the requirements for the criteria of reliability and redundancy.

As for transmission of signals related to safety-critical systems, etc., take measures including appropriate encryption so as to prevent interference and takeover.

In addition, electric devices may not exceed the definite period of storage and the counts of use (e.g. counts of discharging and charging of a battery).

## 7. Authorization, etc. to make change

### Article 16 of the Act (Compliance Certification)

(2) A person who intends to obtain a compliance certification under the preceding paragraph must submit a written application to the Prime Minister, pursuant to the provisions of Cabinet Office Order, specifying the following information, attaching a document certifying that the launch site complies with the type-specific site safety standard and other documents specified by Cabinet Office Order.

- (i) the person's name and address;
- (ii) the location of launch site (in the case of a launch site onboard the ship or aircraft, the name or registration code of the ship or aircraft), as well as its design and equipment;
- (iii) the type certification number pertaining to the type certification under Article 13, paragraph (1) or the fact that a foreign certification has been obtained for the type of launch vehicle;
- (iv) the flight termination measures or other means of ensuring the safety of the vicinity of the trajectory and launch site of the launch vehicle; and
- (v) other matters specified by Cabinet Office Order.

### Article 17 of the Act (Change of Location, etc. of Launch Site)

(1) When a person who obtained a compliance certification under paragraph (1) of the preceding Article intends to change any matter set forth in item (ii) or (iv) of paragraph (2) of that Article (including the case when a change has been made to the type-specific site safety standard and the launch site for which the compliance certification was granted no longer satisfies the type-specific site safety standard), the person must obtain authorization from the Prime Minister pursuant to the provisions of Cabinet Office Order; provided, however, that this does not apply to minor changes specified by Cabinet Office Order.

(2) When there has been a change to any of the matters set forth in Article 16, paragraph (2), item (i) or (v), or any minor changes specified by Cabinet Office Order as referred to in the proviso to the preceding paragraph, the person who obtained a compliance certification under Article 16, paragraph (1) must make a notification to that effect to the Prime Minister without delay.

If any information stated in the application documents is changed, it is necessary to submit the following application for authorization or notification of change, depending on the items to be changed and the degree of change. Those who cannot

determine which of the authorization or notification would be necessary are recommended to consult the NSPS in advance.

## **7.1. Application for authorization of change**

### **7.1.1. Scope of application for authorization related to change**

An operator that intends to make any change relating to Article 16, paragraph (2), items (ii) or (iv) is required to submit an application for authorization related to change, except for a change that would not result in any substantial change as indicated in 7.2.

### **7.1.2. Specific examples for application for authorization related to change**

- New establishment or relocation of a place of storage of hazardous materials

## **7.2. Notification of change**

Article 17 of the Regulation (Application, etc. for Change of Location of Launch Site and Other Matters)

(3) The minor changes specified by Cabinet Office Order, as referred to in the proviso to Article 17, paragraph (1) of the Act, are changes that would not result in a substantial change in the matters set forth in Article 16, paragraph (2), items (ii) or (iv) of the Act.

### **7.2.1. Scope of notification of change**

It is necessary to submit a notification of change if any of the following applies:

- if the operator intends to make a change related to Article 16, paragraph (2), item (i) or (v) of the Act.
- if the change would not result in any substantial change in relation to item (ii) or (iv) of that paragraph.

### **7.2.2. Specific examples for notification of change**

- Change of address of launch site due to merger of municipalities and other reasons
- Expansion or downsizing of the launch site in relation to the area not directly related to launch
- Change requiring permission, etc. under other laws and regulations, such as change of capacity of an air container for high-pressure gases.
- Correction of an error in the application documents.

## **8. Review of Guidelines**

The contents of these Guidelines relating to launch sites are subject to change depending on the progress of technology, international development, etc. These Guidelines are to be reviewed as necessary, considering the future change in circumstances.