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Part III

Department of Transportation

Office of Commercial Space Transportation

14 CFR Chapter III

Commercial Space Transportation; Licensing Regulations, Final Rule

**DEPARTMENT OF TRANSPORTATION**

**Office of Commercial Space Transportation**

**14 CFR Chapter III**

**[Docket No. 43810]**

**Commercial Space Transportation; Licensing Regulations**

**AGENCY:** Office of Commercial Space Transportation, DOT.

**ACTION:** Final rule.

**SUMMARY:** The Office of Commercial Space Transportation is publishing final licensing regulations for commercial launch activities. These regulations constitute the procedural framework for reviewing and authorizing all proposals to conduct non-Federal launch activities, including the launching of vehicles, operation of launch sites, and payload activities that are not licensed by other federal agencies. The Office also is publishing its general administrative procedures and a revised compilation of its information requirements. This final rule replaces all previous guidance, specifically, the interim final rule, published February 26, 1986, and the Licensing Policy Statement, published February 25, 1985.

**DATE:** This rule becomes effective **April 4, 1988.**

**FOR FURTHER INFORMATION CONTACT:**

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**SUPPLEMENTARY INFORMATION:**

## **Background**

The Commercial Space Launch Act of 1984, Pub. L. 98-575, authorizes the Secretary of Transportation to oversee and coordinate United States commercial launch activities. The Secretary's mandate embraces the authority to license and otherwise regulate such activity, as well as the responsibility to encourage, facilitate and promote establishment of a competitive United States commercial space transportation industry.

The Department of Transportation is currently implementing its authority in this area through interim regulations published by the Office of Commercial Space Transportation on February 26, 1986. The interim regulations built upon the Office's Licensing Policy Statement, published February 25, 1985, which was the Office's initial exposition of the licensing process it had devised as the means for guiding both the planning and conduct of the private launch activities subject to its authority. In particular, the Office's approach to licensing was intended to ensure that certain national interests received appropriate attention when applications are reviewed. These interests are stated explicitly in the Act: public health and safety, the safety of property, national security interests and foreign policy interests of the United States. The licensing process described in the policy statement involved two reviews designed specifically to address these interests. One focused on the safety operations that would be used to support launch activities, while the other focused on the proposed mission itself. In addition, the policy statement emphasized the need to streamline procedures for consulting with other Federal agencies on specific commercial launch proposals.

The Office received numerous comments on its licensing policy. These comments, as well as its own greater practical experience with the launch industry, were fully considered in the course of drafting proposed licensing regulations. Because the Office concluded that the launch industry required guidance upon which it could immediately rely, these regulations were published on an interim final basis. Although they went into effect immediately upon publication, the Office requested further comment on its licensing regulations in order to identify revisions or clarifications that might be needed to achieve maximum responsiveness to the wide range of launch activities American firms can be expected to propose.

In addition, much progress has been made since the interim regulations were published in developing the contractual arrangements covering access of commercial launch firms to government-developed launch technology and government-provided safety services. The greater definition that now exists in this area has, in turn, made it both necessary and possible to ensure that government range safety functions and launch firm licensing procedures are efficiently integrated.

The regulations published today constitute the administrative framework for according each proposal to conduct a commercial launch activity a prompt, well-defined, and thorough review. They also reflect the Office's on-going effort to design a licensing program that will provide unqualified assurance to the public that private firms will operate safely and responsibly. This assurance is indispensable to the success of the American commercial launch industry.

The Office will continue to evaluate and, when necessary, re-shape its program in response to growth, innovation, and diversity in this critically important industry.

## **National Space Policy**

The interim regulations were published within a month of the Space Shuttle Challenger accident, an event which

resulted in the temporary grounding of the nation's primary means to space. This situation, combined with the rapidly growing backlog of government and commercial payloads, caused the government to reevaluate its reliance on a single space transportation system as well as its own role as provider of launch services for all the nation's space needs. Instead, the United States private sector would have to assume a new and significant role alongside the government in assuring the nation's access to space.

In August 1986, President Reagan announced a new launch policy, set forth in his United States Space Launch Strategy, which limits the Shuttle's role to certain missions and directs the Department of Defense to develop payloads compatible with both expendable vehicles and the Shuttle. Further, the President directed that virtually all routine commercial payloads be launched by commercial launch firms.

On February 11, 1988, the President issued a directive on National Space Policy, which consolidated and updated previous Presidential guidance on space activities. The National Space Policy identifies, for the first time, a separate and distinct commercial space sector. The policy is especially significant because of its emphasis on commercial launch services as an integral element of the robust transportation capability essential for maintaining United States space leadership. Further, the policy reaffirms the role of the Department of Transportation as lead agency for Federal policy and regulatory guidance pertaining to United States commercial launch activities.

### **National Space Launch Infrastructure**

The National Space Policy is the culmination of a series of Presidential policies aimed at a fundamental redefinition of the traditional role of the Federal Government in space activities. In the past, the nation's space programs were conducted entirely by the Federal Government. Launch firms participated in these programs only as government contractors, operating in complete conformance to government program requirements and launch practices.

Now, however, launch firms will be operating on a commercial basis, in direct response to the needs of their customers. In doing so, they will rely on the nation's existing launch infrastructure for the support they need to undertake missions vital to the technological and economic well-being of the United States.

The facilities that comprise this infrastructure are resources in which the nation has invested over the course of three decades to ensure United States preeminence in all activities. At present, demand for program support at these facilities is great and the supply, as with all resources, limited. This potential capacity problem highlights the need for management strategies that will maximize access to the national ranges for all sectors of the U.S. space program: Military, civil government, and private commercial. The Department of Defense, the National Aeronautics and Space Administration, and the Department of Transportation are working in concert to develop the means whereby Federal launch property and services can be made available to the commercial launch industry in a manner that enables it to compete effectively in the world market for launch services.

Pursuant to its authority under section 15 of the Commercial Space Launch Act and consistent with the President's directives in the National Space Policy, the Department of Transportation is working to ensure that government launch property and services requested by launch firms are priced in a manner that provides maximum encouragement to the United States commercial launch industry. The Department is also working, in consultation with other Federal agencies, to establish allocation of risk principles and insurance requirements that are appropriate for commercial launch activities conducted at national ranges.

## **Safety Roles and Responsibilities**

The Federal Government plays two distinct roles related to safety in the context of commercial launch activities. The Department of Transportation bears responsibility for ensuring, through its licensing process, that proposed launch activities are not hazardous to public health and safety or the safety of property. The Department's exclusive and continuing safety authority extends to such activities regardless of whether they are staged at private or government launch facilities.

Before the Department's Office of Commercial Space Transportation can issue a launch license, it must review an applicant's proposed operations. In order to secure approval for its safety operations, an applicant must demonstrate that it can marshal the resources needed to prepare and launch a launch vehicle safely. These resources can be assembled in a number of ways: A company can choose to conduct all safety operations itself; it may rely on government-provided property and services to support its safety operations; or it may choose to perform safety operations through some arrangement whereby private and government resources are combined. In any case, the company must demonstrate that all aspects of its proposed launch activities will be conducted safely.

In addition, the Federal Government also operates, through the Air Force and NASA, a number of launch ranges and related launch facilities. Numerous safety-related operations are conducted at these ranges. Some of these operations, such as those pertaining to flight safety, can be provided under contract as a service to commercial launch firms. Range operators also conduct safety-related operations that derive from their responsibility to protect government property and personnel. These include safety inspections and monitoring, as well as certain other safety functions performed on a mandatory basis for all range users. Most commercial firms have indicated that they plan to contract with national range operators for flight safety support as the means for obtaining safety approval from the Department of Transportation.

## **Comments on the Interim Regulation**

The Office received 13 comments on its interim licensing regulations. Of this total, two were submitted by private individuals, seven from launch firms and other aerospace companies, one from a coalition of media associations, one from a law firm that represents telecommunications clients, and one from a Federal agency. In addition, the Office also received comments from the House Committee on Science and Technology.

Most of the comments received by the Office expressed general support for the licensing policies and procedures articulated in the interim rule. Several commenters, however, raised questions concerning the standard for granting "mission approval", that is, the standard for determining that a proposed launch activity is not objectionable from the standpoint of safety, United States national security or foreign policy interests, or United States international obligations. Specifically, commenters expressed concern that the terms "national security" and "foreign policy" are not defined in the regulations and could be interpreted too broadly.

The Office wishes to emphasize again the guiding principle established by the Commercial Space Launch Act in this area: the "provision of launch services by the private sector is consistent with the national security interests and foreign policy interests of the United States and would be facilitated by stable, minimal and appropriate guidelines that are fairly and expeditiously applied." As the agency charged with implementing the Act, the Department of Transportation views this passage as forming the basis for a presumption that proposed commercial launch activities are consistent with national interests. Thus, the purpose of the licensing process, in so far as national security and foreign policy issues are concerned, is to identify and, whenever possible, ameliorate specific

problems with a proposal, not to determine that each and every proposal is generally consistent with those interests.

However, the Office also wishes to emphasize again the consideration of national security and foreign policy factors is required in the first instance by the Commercial Space Launch Act, not commercial launch regulations: the Act requires the Office to consult with the Departments of Defense and State on all matters affecting United States national security or foreign policy interests.

The Office also received comments that focused on the treatment accorded payloads in the course of Mission Review. These comments were filed by a coalition of organizations representing entities engaged in news gathering and dissemination ("the Media Parties"), as well as by a law firm specializing in telecommunications matters. Specifically, the commenters expressed some concern that, as drafted, the regulations seemed to suggest the possibility of redundant regulation for payloads that are already subject to payload regulation by other Federal agencies, notably the Federal Communications Commission (FCC) and the National Oceanic and Atmospheric Administration of the Department of Commerce (NOAA). The Office recognizes that some clarification of its policies and procedures concerning approval of proposed missions may be helpful in order to eliminate any confusion concerning the Office's role relative to Federal agencies with exclusive responsibility for regulating satellites or satellite services. This matter is discussed in greater detail in the Section-by-Section Analysis.

The Media Parties also proposed modifications to Mission Review that are intended to provide procedural safeguards to applicants whose commercial space proposals may involve activities protected by the First Amendment to the Constitution. In the view of the Media Parties, without these modifications, the regulations may impinge on the First Amendment rights of news organizations.

The Office has not adopted these proposed modifications because they would have the effect of distorting the licensing process. To the extent that a proposal to launch a communications or remote sensing satellite raises First Amendment issues, those issues will be addressed by the agencies with exclusive authority for regulating these satellites or the services provided by them: the FCC or NOAA. Such issues do not fall within the scope of the Office's authority for commercial launch activities and, thus, are not addressed in the course of its licensing process. The Office's sole non-safety concern regarding FCC or NOAA regulated payloads is that such satellites not be launched until they are licensed by those agencies.

Another commenter suggested that Mission Review should examine the impact of proposed new payloads on future, as well as current, uses of space. The Office does expect that its review of such a payload would focus on safety, national security or foreign policy implications associated with the payload. In addition, reviews would also focus on those impacts associated with a new payload that may occur in the reasonably foreseeable future. However the Office does not consider open-ended speculation regarding possible future uses of space by public and private entities, both domestic and foreign, to be consistent with the well-defined and expeditious processing of applications required by the Act.

The Office received comments from the House Committee on Science and Technology that touched on a number of subjects in the regulations. First, the Committee directed the Office's attention to the fact that since "payloads" are defined as "objects", not people, by the Act, there could be a problem with the Office seeking to offer guidance to private entities who may be planning manned launch activities. Indeed, several such entities have consulted with the Office on a number of occasions and a representative of one start-up firm sits on the Department's Commercial Space Transportation Advisory Committee.

With regard to "payload" as defined by the Act, the Office does not see this term, however defined, as an impediment to exercising its role as the point of contact within the Federal Government for private entities planning manned launch activities. Neither the Act nor the Report that accompanied the Act at passage indicates that "launch of a launch vehicle" should be read exclusively as launch of an unmanned launch vehicle. While it is clear that the Act was drafted primarily for the launch activities most likely to occur in the near term, commercial launches of unmanned rockets, the Report clearly states that "[t]he Act currently provides adequate supervision for all non-Governmental (commercial or noncommercial) space launches \* \* \*." Regardless of the type of launch activity contemplated by a private entity, manned or unmanned, the Federal Government must be prepared to provide effective guidance. Only in this manner can the Government avoid the unsatisfactory administrative response that firms proposing commercial ELV launches experienced prior to issuance of Executive Order 12465 and passage of the Act.

The Committee also asked several questions concerning the Office's research and analysis program, which is intended to enhance the technical resources the Office needs for effective implementation of the Act. This program consists of studies to be conducted over the course of two years. The Committee asked how the Office can handle private launch site proposals on a case-by-case base, as provided in the regulations, within the statutorily prescribed 180 days or how a meaningful rulemaking proceeding on private launch sites can begin if the Office's safety research and analysis will not be completed for two years.

The Office will review proposed private launch site operations on an ad hoc basis relying, as an interim measure, on existing government launch expertise, experience, and safety practices as references. In this way reviews will be conducted thoroughly and within the statutory time limits even though there are not now published standards to guide firms planning to conduct private launch site operations. Indeed, such standards cannot be promulgated until adequate data and analysis has been assembled to support a rulemaking.

Any rulemaking initiated in the near-term on private launch site operations will focus on regulatory policy issues: that is, the appropriate approach the Office should take in developing policies and procedures for licensing commercial launch site operations. Thus, both review of private launch site operation proposals and pre-rulemaking notice and comment activity focused on licensing issues can be conducted concurrently with ongoing safety research. Further, although the entire safety research effort may take two years to complete, individual studies will be completed throughout that period, some within the next six months to a year. The results of these studies will form the basis for the Office's basic technical capability, including safety evaluation criteria and a data base for future safety standards. It should be noted that safety research is a continuing and critical component of every safety regulatory program, as demonstrated by the extensive on-going research and analysis conducted by other constituent agencies of the Department of Transportation, such as the Federal Aviation Administration or the National Highway Traffic Safety Administration.

In the area of worker safety, the Committee suggested that there is no need to duplicate the requirements of the Department of Labor's Occupational Safety and Health Administration (OSHA) which would apply to worker safety in the context of licensed launch activities. The Office has no intention of doing so. The Act gives the Office comprehensive safety authority for commercial launch operations, thus raising an issue concerning concurrent authority in this area. As in other areas where there is concurrent safety authority, such as aviation, there is a question concerning the more appropriate approach to safety, OSHA's or that of the agency with primary authority for the activity involved. At this time, the Office will not develop safety requirements for the specific purpose of protecting workers involved in commercial launch operations. OSHA requirements will apply to these activities until the Office and OSHA determine that it is appropriate to do otherwise.

The Committee also suggested that the Office prescribe a format for required information and use forms where appropriate. Although the Office has not ruled out adoption of a required format at some future time, it continues to believe that, for the time being, applicants should organize required information in a manner that reflects the organization of their safety operations. In order to encourage innovation, the Office has tried to accord applicants maximum flexibility and to emphasize content, rather than form. The information requested was identified and organized in close cooperation with NASA and the approach was discussed informally with launch companies before rulemaking was initiated. They all supported our approach then and, in their formal comments on the rule, have continued to do so.

With regard to license fees, the Committee favors incorporating such fees in the regulations to cover the costs associated with processing applications. The Department strongly supports user fees in all transportation modes. The Office intends to consider establishing reasonable fees for licensing processing, balancing the desirability of reasonable fees with its responsibility to encourage and promote a private launch industry.

The committee also alerted the Office to the need for further clarification of some of the definitions contained in the regulations. The Office has made appropriate revisions to its definitions and these, along with other revisions, are discussed in the section-by-section analysis that follows.

## **Section by Section Analysis**

### **Part 400--Basis and Scope**

*Section 400.1* indicates that the commercial space transportation regulations derive from both the Federal Government's domestic responsibilities for commercial launch activities as well as the obligations it has assumed under international agreements, particularly the obligation under Article VI of the 1967 Outer Space Treaty to provide authorization and continuing supervision for such activities.

*Section 400.2* specifies the launch activities for which the regulations provide guidance: all United States launch activities except amateur rocket activities and the launch activities of the United States government. As the Office stated in its initial policy statement on licensing, its licensing policies and procedures have been developed primarily for the private commercial launch activities that are currently being proposed: commercial expendable launch vehicle (ELV) launches. However, consistent with the legislative history of the Act, the Office's regulatory guidance also provides adequate supervision for any other non-federal launch activity. Thus, launch activities falling within the scope of the Office's authority may include activities conducted for experimental, developmental, or research purposes as well as those conducted without any apparent profit motive.

At the same time, neither the Act nor its legislative history evinces an intention to require licenses for small scale rocket launches conducted for recreational or educational purposes at private sites. These launches, which number annually in the millions, are currently subject to state and local regulation, self-regulation by the organizations sponsoring these activities, and Federal airspace requirements. These existing guidelines and requirements have been effective for purposes of protecting public safety and any other national interest that may be associated with these activities.

### **Part 401--Organization and Definitions**

*Section 401.1* identifies the operating unit within the Department of Transportation with primary responsibility for

implementing the Department's authority under the Act, the Office of Commercial Space Transportation. *Section 401.3* identifies the Director of Commercial Space Transportation as the official within the Department to whom the Secretary's authority for commercial space transportation has been delegated.

*Section 401.5* contains definitions of the major terms used in the regulations. The definitions of "launch" and "operation of a launch site" are intended to convey the complementary, but nevertheless distinct, nature of these two activities. A launch centers on the placement, or attempted placement, of a specified launch vehicle and/or its payload in a suborbital trajectory or in space. A launch license authorizes a launch to be conducted in order to achieve certain mission objectives. The license holder is legally responsible for the proper conduct of such a launch. Although a launch license would seem to be oriented toward singular events, one license could cover a specified series of launches where the same safety resources will support several identical or similar missions. In contrast, the operation of a launch site involves continuing operations at a permanent location. A license covering such operations authorizes a person to operate a launch range facility and to offer approved services to launch companies.

The Office has determined that the inclusion of a definition for "commercial launch activities" in the interim Final Rule was unnecessary and has deleted it.

## **Part 404--Regulations and Licensing Requirements**

The Commercial Space Launch Act establishes the licensing standards for commercial launch activities. Section 9 (b) of the Act directs the Office to issue a license once it has determined that an applicant meets the requirements for a license identified in section 9(a)(1) of the Act. These include current requirements of Federal agencies which apply specifically to the launch of a launch vehicle or operation of a launch site. If, however, the Office determines, in consultation with the appropriate agencies, that any such federal requirement is not needed to protect public safety, the safety of property or the national security and foreign policy interests of the United States, then section 8(a)(2) permits the Office to eliminate that particular requirement as a requirement for a license. Moreover, section 8(b) authorizes the Office to prescribe new requirements for commercial launch activities. Together these provisions confer broad authority upon the Office to craft efficient regulatory guidance with specific applicability to private launch activities.

If the Office wishes either to eliminate an existing federal requirement or to prescribe new ones in order to implement the provisions of the Act, a proceeding must be conducted that would involve notice to and comment by the public. *Part 404* of the regulations sets out the procedures the Office will follow when conducting rulemaking proceedings and explains how interested parties may participate.

Section 8(c) of the Act gives the Office discretionary authority to waive a licensing requirement for a license applicant if that waiver would be in the public interest and would not jeopardize public health and safety, safety of property, or any national security or foreign policy interest of the United States. *Part 404* also establishes procedures for waiver requests by individual applicants.

With regard to existing federal requirements, the Office has determined that the only provisions with direct applicability to private launches are those of *Part 101, Subpart C, of the Federal Aviation Regulations, 14 CFR 101.21-25*, regulating all unmanned rocket activities. The Office of Commercial Space Transportation and the Federal Aviation Administration have agreed that, henceforth, requirements pertaining to the use of domestic United States airspace for commercial launch purposes will be handled by the Office as an intradepartmental



matter on behalf of licensees.

It should be noted that the Office's safety authority extends to protecting workers at commercial launch sites. For the present, however, the Office will not prescribe any standards or requirements for worker safety in the context of licensed launch activities. Instead, the appropriate requirements of the Department of Labor's Occupational Safety and Health Administration will apply to privately conducted launch activities.

### **Part 405--Investigations and Enforcement**

The Office will rely on the provisions of Part 405 to ensure compliance with the terms and conditions of licenses. Section 405.1 requires licensees to cooperate with anyone acting on behalf of the Office to monitor licensed activities, including payload-related activities covered by section 6(b)(2) of the Act. Monitoring will be conducted in the least intrusive manner possible and only for the purpose of determining whether such activities conform to applicable requirements.

*Section 405.3* deals with modification, suspension or revocation of licenses. The Office may modify a license either on its own initiative or pursuant to a request by the licensee. All modifications must conform to the same standards, identified in the Act, that apply to initial licenses.

Paragraph (b) of *405.3* indicates that noncompliance with any requirement applicable to a licensed activity is grounds for suspension or revocation of a license. Moreover, *405.5* provides for emergency orders to halt any launch activity detrimental to national interests, while *405.7* provides that acts of noncompliance may be punishable by civil penalties.

With regard to the Director's emergency order authority, which is explicitly mandated by section 11 of the Act, the Office is aware of the concern, expressed through the Commercial Space Transportation Advisory Committee, associated with the exercise of this authority. One of the Office's major goals has been to encourage and promote the industry through carefully considered policies and procedures designed to eliminate, wherever possible, regulatory uncertainties. Thus, the Office wishes to emphasize that it views the exercise of this authority as an extraordinary measure to be relied upon in truly emergency circumstances.

### **Part 406--Administrative Review**

*Part 406* describes the Office's procedures for implementing the Act's administrative review provisions. Section 12 of the Act requires that an opportunity for a hearing be accorded persons seeking reconsideration of certain decisions made by the Office. Specifically, persons who have applied for a license may challenge a decision not to issue a license or challenge the conditions attached to a license that has been granted. In addition, a person holding a license may dispute a decision to modify, suspend or revoke that license or to issue an emergency order. Similarly, a payload operator or owner may request a review of the facts or issues pertaining to a payload whose launch the Office has decided to prevent, as may a person against whom the Office has assessed a civil penalty. In these circumstances the Office will, if so requested, provide an opportunity for an impartial hearing on the matter at issue. *Part 406* sets out the procedures governing initiation and conduct of such proceedings.

### **Part 411--Policy**

*Part 411* establishes the policies of the Office of Commercial Space Transportation for licensing commercial

launch activities, including launches, launch site operations, or some combination of the two activities. These policies augment the general application procedures set out in *Part 413* of the regulations and the launch license review procedures contained in *Part 415* of the regulations.

*Section 411.3* identifies the two reviews, Safety Review and Mission Review, through which the Office will evaluate proposed ELV launches. Although the Office will be responsive to proposals involving manned launches, such proposals may involve issues that require reviews different from or in addition to these two reviews.

In order to accord the industry both flexibility and certainty in the course of developing commercial launch proposals, the Office may conduct Safety Review and Mission Review independent of each other and in the order, sequential or concurrent, appropriate to the applicant's needs. For example, an applicant may secure approval for a proposed mission early in the planning stage of a launch activity and apply later for approval of the safety operations proposed to support an actual launch. The record upon which to base licensing decisions thereby can be developed in a manner that responds to the planning needs of applicant.

*Section 411.3* also discusses requests for licenses authorizing the operation of commercial launch sites. Editorial revisions have been made to this section to make it clear that this activity is comparable to the operation of a commercial airport. Although a separate license covering the operation of a launch site is contemplated by the Act, the regulations were not developed specifically for implementing the Office's authority in that area. Devising an appropriate regulatory framework for commercial launch site operations involving careful consideration of a wide range of complex issues, particularly those relating to requirements or standards for implementing the Office's safety authority. The Office has begun investigating these issues as part of its comprehensive research and analysis program.

At the same time, the Office has received a number of inquiries expressing interest in establishing permanent commercial launch sites and wishes to be responsive to any proposal that may be submitted in the near future. In order to do so, the Office will rely on its Safety Review process, discussed below, as an appropriate general framework for initiating an assessment of commercial launch site proposals.

*Section 411.5* addresses safety approval, one of two approvals an applicant must secure in order to be granted a license. At present, there are no safety standards or requirements that have been developed specifically for commercial launch activities. Therefore, pending completion of efforts to develop these standards and requirements, the Office will make case-by-case determinations regarding safety operations that commercial firms propose to conduct themselves. The Office will supplement the resources available to it, when necessary or appropriate, by relying on the experience and expertise of other Federal agencies. Minor editorial changes have been made to this section in the final rule.

*Section 411.7* discusses mission approval. This is the other approval which must be secured in order for an applicant to be granted a launch license. The Office must assess proposed missions from the standpoint of both the national interests and international obligations of the United States. The review will encompass such factors as the nature and purpose of the proposed payload, the impact of the payload on existing uses of space, and the proposed flight plan.

With specific regard to national security and foreign policy interests, the Office is required to consult with the Departments of Defense and State, the Executive Branch agencies with primary responsibility for safeguarding U. S. national security and foreign policy interests, respectively. The Office must ensure that these agencies are

apprised of potential commercial launch activities in order for their views to be taken into account. The Office wishes to emphasize again that, as a general matter, Congress has declared privately conducted commercial launches to be consistent with the national security and foreign policy interests of the United States. The Office fully recognizes that the commercial viability of providing such services on a routine basis requires that review of proposed missions not be encumbered by unnecessary process. Therefore, the Office will seek to identify specific problems associated with a proposed mission, not seek to determine de novo that each launch proposal is consistent with United States interests.

However, the Office has revised 411.7 of the regulations to correct any impression created in the Interim Rule that the Office was establishing an evidentiary standard for adverse licensing decisions that is higher than or different from that set forth in the Act.

The mission of most proposed orbital launches will be to place a payload in space. Thus, the most significant part of the Office's review of proposed missions will pertain to the payload to be launched. The Office wishes to clarify the nature and scope of its authority with regard to payloads launched by commercial launch firms. A launch license issued by the Office authorizes the licensee to launch a launch vehicle and any payload to be carried by the launch vehicle. In order to authorize a launch involving a payload, the Office must first identify the nature of the payload to be launched. This identification is necessary in order for the Office to determine how to proceed, in practical terms, with a review of a proposed mission. There are two general options:

1. The payload the applicant proposes to launch is identified as one which is subject to existing payload regulation. At present, this category includes only telecommunications satellites licensed by the Federal Communications Commission (FCC) and remote-sensing satellites licensed by the National Oceanic and Atmospheric Administration of the Department of Commerce (NOAA).
2. The payload the applicant proposes to launch is identified as one which is not subject to existing payload regulation.

Only for this latter category will the Office initiate a review, pursuant to its authority under section 6(b)(2) of the Act, in order to determine that the proposed launch of the payload will not jeopardize public health and safety, safety of property or any national security or foreign policy interest of the United States. The Office does not conduct such a review for any payload that requires either an FCC or NOAA license to launch or operate. Rather, pursuant to section 6(b)(1) of the Act, the Office simply requires that the appropriate license be secured before the payload can be launched. The Office will not examine any issues pertaining to payloads licensed by the FCC or NOAA before license application is made to either of those agencies or during the pendency of any review of a license application at either agency. Nor will the Office re-examine any matter associated with a payload that was or could have been subject to FCC or NOAA review during their respective licensing processes. In order to eliminate any lingering ambiguities in this area, the policies and procedures in the regulations pertaining to proposed missions have been revised or clarified, as appropriate. It should be noted, however, that in the course of Safety Review the Office will seek to ascertain whether all applicants possess the requisite resources and expertise to conduct safely any planned payload-related operations as part of the process whereby a launch vehicle is prepared and launched.

Payloads that are subject to review by the Office under section 6(b)(2) of the Act include all domestic payloads not presently regulated by the FCC or NOAA and all foreign payloads. The Office is authorized to determine whether the launch of any such payload would jeopardize public safety, safety of property, or any national security or foreign policy interest of the United States. If necessary, the Office may act to prevent the launch of the payload in

question. As it has done in other areas, the Office has molded its policies and procedures carefully in this area so that legitimate Federal interests associated with proposed launches of these payloads are not served at the unnecessary expense of commercial space enterprise. Thus, the Office will exercise its authority under section 6(b)(2) in a manner that minimizes regulatory uncertainties for those planning or sponsoring new space applications and missions involving foreign payloads.

*Section 411.9* discusses the information the Office will require applicants to submit in order to initiate review of applications. The Office's approach to this information corresponds to its goal of fostering reliable, low-cost commercial space transportation services. The Office's information requirements have been organized intentionally into general categories that identify the basic information needed to initiate an appropriate review. However, although all the required data must be provided for an application to be considered complete, the Office has not prescribed any particular format for submitting it. Because commercial firms may develop new approaches to the design of launch vehicles, the delivery of launch services, or the location and organization of launch operations, information submissions may reflect the unique structure or organization of their launch operations.

The Office has made a number of changes to the information requirements identified in the Interim Rule. The Office expects to continue refining these requirements based on the products of its research program and consultations with other agencies, as well as formal and informal interaction with the commercial space industry. Therefore, the Office has concluded that this information should not be included in its published regulations. So that prospective applicants are assured of having ready access to the most current and accurate version of the Office's information requirements, they will be set out in a separate document that will be available upon request. The first such version of the Office's information requirements is published as an appendix to this preamble.

## **Part 413--Applications**

*Part 413* sets out general license application procedures. These procedures apply to all commercial launch activities, regardless of whether an applicant seeks a license to launch a vehicle, operate a launch site, or for a combination of the two. The application procedures in *Part 413* are supplemented by the provisions of *Part 415*, which contains a detailed description of the review procedures for launch license applications. A separate part has been reserved for future regulations addressing applications for licenses authorizing launch site operations.

Since the nature of a proposed launch activity affects the timing and scope of the Office's review, as well as the degree to which other Federal agencies will be involved, *413.3* encourages prospective applicants to initiate pre-application consultations with the Office of Commercial Space Transportation.

*Section 413.7* contains revised procedures for handling confidential information. These revisions have been made to bring this section into conformity with section 9(c) of the Act, which directs that certain information provided to the Office by applicants not be disclosed unless the Secretary determines that withholding such information is contrary to the public or national interest.

*Section 413.9* outlines the process for reviewing all applications. *Section 413.9(a)* has been amended to indicate that information required to initiate a review of an application is available upon request.

*Section 413.9(b)* states that an application is accepted for review by the Director if it is substantially complete: that is, if it contains sufficient information for a meaningful review. Once an application is accepted for review, *section 413.9(d)* indicates that the Director will initiate an appropriate interagency review. The Office, not the applicant,

will assume the burden of shepherding the application through the review process. Additionally, the reference in *413.9(d)* to an appropriate review is intended to make clear that the administrative response to an application may not be standard or uniform in all circumstances; the Office has taken great care to insure that each review is tailored to the application's particular characteristics. In this fashion, the Office intends to avoid any unnecessary regulatory stumbling blocks to proposed launch activities.

*Section 413.9(e)* indicates that a determination on a license application will be made within 180 days of receipt. As a matter of policy, however, the Office intends to conduct all application reviews on an expedited basis and anticipates that most determinations will be made well before this statutory deadline.

All licenses issued will contain terms defining the activity authorized by the license and the person responsible for conducting that activity. In addition, conditions will be incorporated into all licenses to ensure compliance with statutory and regulatory requirements. *Section 413.15* addresses certain standard conditions, including the need for an on-site mechanism to verify that the licensed activity conforms to information that was submitted to and reviewed by the Office during the application review process.

*Section 413.17* indicates that a license authorizing a launch activity is separate from the license required for any satellite to be launched. The Act preserves the existing authority of Federal agencies with primary responsibility for payload regulation. At present, this includes only the FCC and NOAA, which are responsible for licensing telecommunications and remote sensing satellites, respectively. Thus, issuance of a launch license has no effect on the exclusive authority of the FCC or NOAA to license such satellites or the services provided by them.

*Section 413.19* establishes the applicant's responsibility for the continuing accuracy of information submitted as part of an application review.

## **Part 415--Launch Licenses**

*Part 415* establishes procedures for reviewing launch license applications and the general standards for approving such applications. The provisions of this part apply only to prospective launch license applications and should be read together with the general application procedures in *Part 413*. A future regulatory proposal addressing commercial launch site operations will establish procedures and standards specifically for license applicants seeking authorization for that activity in a separate part.

*Section 415.3* identifies the proposed launch activities that will require a launch license. Any person proposing to launch from U.S. territory must obtain a license authorizing the launch. A U.S. citizen proposing to launch from U.S. territory or from international territory must also obtain such a license, unless (in the case of launches from international territory) another nation has agreed to exercise jurisdiction over the launch. Foreign corporations, partnerships, joint ventures, associations or other entities controlled by U.S. citizens do not need licenses to conduct a launch from foreign territory, unless the foreign nation involved has agreed that the U.S. shall exercise jurisdiction over the launch.

*Section 415.5* identifies the two approvals that must be secured in order for a launch license to be issued: safety approval and mission approval. Safety Review and Mission Review are conducted to determine whether these approvals can, in fact, be given. Once secured, no other approval is required from the Office in order for an applicant to be granted a license for an ELV launch.

The Office will accept applications for Safety Review, Mission Review, or for a determination that the launch of a payload covered by section 6(b)(2) of the Act will not be prevented, independent of one another and before submission of an application for a license. *Section 415.7* makes clear that any approval or determination made on such applications will be made part of a licensing record. Thus, when an applicant does apply for a launch license, any approval or determination previously made that relates to the activity for which a license is sought remains valid. The Office will not duplicate a relevant review as long as no material changes have been made in matters previously reviewed and approved.

*Section 415.9* identifies standard conditions for launch licenses. One of these is securing third- party liability insurance coverage. In exercising its authority in this area, the Office will be looking to set required insurance amounts that accurately reflect the potential losses associated with launch failures. The Office has begun several studies to determine what these amounts should be. For the time being, the Office will prescribe insurance requirements for each licensed activity on a case-by-case basis.

The final regulations include a new provision, *415.10*, which sets out requirements pertaining to the registration of objects launched into space.

*Subpart B of Part 415* focuses on Safety Review. *Section 415.13* identifies the major elements of Safety Review: the proposed launch site, procedures, personnel and equipment. *Section 415.15* notifies applicants that Safety Review can be requested either as part of the license request or before a license request is submitted. This provision responds to the need some prospective licensees may have for explicit approval of their safety operations at an early planning stage.

*Section 415.17* of the interim regulations sets out the information requirements for Safety Review applicants. This section has been deleted. The information currently required for a Safety Review is contained in the appendix to this preamble. It should be noted that launches from sites with pre-approved safety operations will be treated differently from those occurring at other sites. At present, the only sites with pre-approved safety operations are Federal launch ranges. In the future, this category would also include commercial launch sites operated under the authority of a license issued by the Office.

*Subpart C of Part 415* focuses on Mission Review. *Section 415.23* states that for Mission Review, as for Safety Review, applicants may request approval either as part of a license request or before such a request is made. *Sections 415.25* and *415.27* of the interim regulations set out the information requirements for applicants seeking mission review or a determinations on a payload not regulated by FCC or NOAA. These sections have been deleted. Information required for Mission Review, including information pertaining to payloads that are not regulated by the FCC or NOAA, is set forth in the appendix of this preamble. The nature of the proposed mission will affect both the nature and the quantity of information needed by the Office to conduct its review. For proposals which involve licensed payloads, the payload requirements of Mission Review will be satisfied by the issuance of a license by the responsible Federal agency. Proposals involving other kinds of domestic payloads or foreign payloads must be accompanied by more extensive information, reflecting the more extensive review such proposals must receive from the Office.

*Subpart D of Part 415* identifies circumstances wherein applicants may be required to submit information to the Office as part of Safety Review, Mission Review, or both, in order to satisfy the requirements of the National Environmental Policy Act. This information will be needed when some element of a proposal is not covered or addressed by existing environmental documentation on the effects of launch activities.

## **Executive Order 12291, Regulatory Flexibility Act, and Paperwork Reduction Act**

The interim regulations were evaluated under Executive Order 12291, "Federal Regulation," dated February 17, 1981, and the Department of Transportation's Regulatory Policies and Procedures, dated February 26, 1979. The regulations were not considered to be "major," as defined by E.O. 12291, because they will not have an annual cost impact exceeding \$100 million; they will not cause a major increase in costs or prices for consumers, individual industries, government agencies, or regions; and they will not have a significant adverse impact on competition, employment, investment, productivity, innovation or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets. The regulations were considered to be "significant" as defined by the Department's Regulatory Policies and Procedures because of the novelty of space transportation as a private sector activity, the interest of the public and other Federal agencies, and the effect of the regulations on the competitive position of United States launch firms. The Office prepared a Regulatory Evaluation to accompany the interim regulations, which was made available for public review and comment in the rulemaking docket. Since the final regulations are not materially different from the interim ones, the Office considers all regulatory analyses prepared for the interim regulations to be applicable to the final ones. The regulations are largely procedural in nature and are intended to eliminate regulatory obstacles to private launch firms, large or small. Small entities are likely to be involved in launch activities and, as a consequence, affected by the regulations.

The regulations do not impose significant economic costs on them. Therefore, it is certified that the regulations will not have a significant economic impact on a substantial number of small entities.

## **National Environmental Policy Act**

The Office completed an environmental assessment of the commercial space transportation program and made the assessment available for public inspection and comment. The programmatic assessment did not identify any significant impacts that the conduct of commercial launch activities would have on the human environment. However, certain factors associated with individual launch proposals were not addressed in the assessment and may require further review during the licensing process. These include use of new propellants, new site development, or environmental effects associated with some payloads in the event of a launch accident. Copies of the assessment may be requested from: Office of Commercial Space Transportation, S-50, Washington, DC 20590. Based on the assessment and comments received on it, the Office published a Finding of No Significant Impact in the Federal Register on November 19, 1986.

List of Subjects in 14 CFR Parts 400, 401, 404, 405, 406, 411, 413, 415

Administrative practice and procedure, Space transportation and exploration.

(Commercial Space Launch Act of 1984, Pub. L 98-575, October 30 1984)

Issued in Washington. DC. on March 24, 1988

Courtney A. Stadd,  
Director, Office of Commercial Space Transportation.

Appendix--Commercial Space Launches: Information Required for Applications

(References: 14 U.S.C. Parts 411-415)

## I. General Requirements

- A. Applications must be in writing and filed in duplicate with the Office of Commercial Space Transportation, S 50, 400 Seventh Street, SW., Washington, DC 20590. Attention: Applications Review Staff.
- B. The original of the application must be signed in accordance with 413.5 of the regulations, 14 CFR 413.5.
- C. Applications should identify the name and address of the applicant, and the name, address, and telephone number of person(s), including counsel, to whom inquiries and correspondence should be directed.

## II. Safety Review

### A. Launches from Federal or Licensed Launch Sites

Applicants proposing to launch from Federal launch ranges or commercial sites operated under the authority of a license issued by the Office must provide:

1. Documentation verifying that the applicant has been accepted by the operator of a launch range or site appropriate for the proposed mission; and
2. A statement identifying the party (operator or applicant) responsible for conducting or providing, whether in whole or in part, any element of safety operations discussed in *415.11* and *415.13* of the regulations, *14 CFR 415.11* and *415.13*. In instances where the applicant will assume primary responsibility for one of these elements, detailed information must be provided describing how responsibility and accountability for safety will be assigned between the operator and applicant; and
3. An analysis of any hazardous activity that will be solely under the control of the commercial applicant, such as orbital transfer stage operations. The analysis must describe the specific hazards associated with the activity and procedures planned to minimize public exposure to such hazards.

### B. Other Launches

All applicants not covered by paragraph (A) of this section must provide a Safety Analysis of their proposed operations in sufficient detail for the Office to conduct an in-depth review of safety operations, as discussed in *411.3*, *411.5* and *415.11-415.17* of the regulations, *14 CFR 411.3*, *411.5*, *415.11-415.17*. The applicant's Safety Analysis must identify and evaluate all hazards to public health and safety or to off-site property that may occur during prelaunch, launch or on-orbit operations; procedures to be employed to control the hazards identified; qualifications of range safety personnel and other critical personnel responsible for assuring hazard controls; design characteristics of range safety systems (flight and ground) and their effectiveness in assuring a safe launch operation; and any residual risks to public health and safety or to off-site property that may be associated with the applicant's proposed launch operations. The following information typifies the data that should be addressed and included in the application:



1. An identification and description of the launch site from which the proposed launch will take place, specifically describing:
  - i. The location, size, shape and geographic characteristics of the site;
  - ii. The proximity to populated areas;
  - iii. Any local activities that may be affected by the launch such as air traffic, shipping, and offshore fishing; and
  - iv. Proposed launch corridors from the site and predicted impact areas.
  
2. A description of the role and responsibilities of personnel performing safety or safety related functions for the proposed launch operation. Details should include:
  - i. A description of the planned organization, key personnel, and lines of authority and responsibility for accomplishing pre-launch and launch safety functions.
  - ii. The methodology proposed for selection, training and testing of the Launch Safety Office and other key personnel critical to assuring Launch Safety System readiness for launch, as well as prior experience, training, etc. of such personnel.
  - iii. Description and explanation of how the methodology proposed relates to assuring the successful control of the proposed launch.
  
3. A description of tracking and/or data acquisition equipment to be used for safety purposes. This description should include:
  - i. An identification of the types of tracking equipment to be used and their performance capabilities;
  - ii. The location and placement of equipment; and
  - iii. The types, performance capabilities and specifications of other aids to be used including computational equipment, display systems, and recording systems.
  
4. A description of proposed flight safety systems including:
  - i. The type, design and performance specifications of the flight termination system, including transmitters, receivers ordinance, etc.:
  - ii. Schematics and wiring diagrams; and
  - iii. Certification and verification procedures for the proposed flight safety system.
  
5. Documents outlining the proposed processes and procedures to be followed for prelaunch ground safety, flight safety analysis, and flight safety operations, including copies of safety analyses performed to determine potential impacts, establish destruct criteria, unique hazards identified, etc. Examples of documents to be included are set forth below:
  - i. Description of ground safety measures taken to protect public safety
  - ii. Flight safety analyses performed, analytical models used, etc. In order to demonstrate efficacy of the proposed process, the applicant is requested to provide examples of safety analyses it has performed to determine potential impacts, establish flight termination

- criteria, identify/control unique hazards, etc.;
  - iii. Flight safety operation to be conducted, criteria proposed for flight termination, practice and testing exercises to be performed, emergency procedures, etc.;
  - iv. Quality control and testing procedures for critical safety equipment components including tracking and flight termination: and
  - v. Recovery procedures if applicable.
6. Flight plan data as a function of time for launch vehicle and spacecraft including trajectory, azimuth, flight profile, and orbital elements. Examples of data to be included are set forth below:
- i. Profile plot of the planned flight trajectory, showing altitude versus range and trajectory for each expended stage;
  - ii. A plan view of the flight trajectory, showing launch and trajectory azimuth, impact points for each stage, jettisoned component, or other impacting body;
  - iii. Launch vehicle ground and IIP ground track with respect to all significant land masses shown in true geographical location; and
  - iv. Description and definition of orbit.
7. Description of the launch vehicle and its performance characteristics, as well as a description of any payload with a particular emphasis on hazardous systems. Examples of descriptions to be included are set forth below:
- i. Description of the launch vehicle configuration; major sections and components; weights and dimensions of each; rocket motors and propulsion systems, guidance system for each stage; and destruct system(s);
  - ii. Description of payload design sufficient to determine unique flight safety hazards, hazardous material involved, etc.; and
  - iii. Thrust time history of each stage, maximum turn rates, plot of estimated vehicle weight versus time, analysis of vehicle integrity to meet flight environment.
8. Other categories of data as determined by the applicant to demonstrate unique capabilities.

### C. Accidents and Mission Failures

All applicants must submit a plan which identifies;

1. The procedures and criteria proposed for reporting accidents, incidents and mission failures to the Office.
2. The applicant's investigation process and criteria for impounding data, establishing investigation boards, committees or officials.
3. Individuals responsible for establishing an investigative process and for reporting accidents, incidents, and mission failures to the Office.

### **III. Mission Review**

- A. The applicant must describe the launch vehicle and the location of the launch site.
- B. The applicant must submit a flight plan and staging data sufficient for evaluating such factors as the potential for land overflight, impacts of spent stages, and debris issues.
- C. The applicant must identify any unique hazards that may be posed by the launch derived from the nature of materials to be launched or potential abort or re-entry hazards.
- D. The applicant must identify the nature and ownership of any payload to be launched.
- E. The applicant must--
  - 1. Provide proof of application for or issuance of any license, authorization or other permit required by either the Federal Communications Commission (FCC) or the National Oceanic and Atmospheric Administration (NOAA) for the payload which is to be launched; or
  - 2. If no FCC or NOAA license, authorization or permit is required for the payload which is to be launched, indicate whether the Office has made a determination on the payload, as provided in 411.7, 415.21, and 415.23 of the regulation 14 CFR 411.7, 415.21 and 415.23.

### **IV. Payload Determinations**

- A. An applicant proposing to launch a payload not subject to FCC or NOAA regulation must provide:
  - 1. An assessment of safety issues anticipated by the applicant;
  - 2. A statement of the number of missions planned for payloads of the same or similar design;
  - 3. A description of the design and construction plans of the payload, and
  - 4. A description and definition of the proposed orbit, including altitude and inclination.
- B. The Office may require an applicant to submit other information, as appropriate.

Accordingly, Title 14, Code of Federal Regulations is amended by revising Chapter III to read as follows:

#### **CHAPTER III--OFFICE OF COMMERCIAL SPACE TRANSPORTATION DEPARTMENT OF TRANSPORTATION (Parts 400-499)**

#### **SUBCHAPTER A--GENERAL**

#### **Part 400--Basis and scope.**

**Part 401**--Organization and definitions.

## **SUBCHAPTER B--PROCEDURE**

**Part 404**--Regulations and licensing requirements.

**Part 405**--Investigations and enforcement.

**Part 406**--Administrative review.

## **SUBCHAPTER C--LICENSING**

**Part 411**--Policy.

**Part 413**--Applications.

**Part 415**--Launch licenses.

## **SUBCHAPTER A--GENERAL**

### **PART 400--BASIS AND SCOPE**

Sec.

**400.1** Basis.

**400.2** Scope.

*Authority: Secs. 3, 6, 13, and 21, Pub L. 98-575 (49 U.S.C. App. 2601 note).*

#### **400.1 Basis**

The basis for the regulations in this chapter is the Commercial Space Launch Act of 1984, and applicable treaties and international agreements to which the United States is party.

#### **400.2 Scope**

These regulations set forth the procedures and requirements applicable to the authorization and supervision of all space launch activities conducted from United States territory or by United States citizens. The regulations in this chapter do not apply to amateur rocket activities or to space activities carried out by the United States Government on behalf of the United States Government.

### **PART 401--ORGANIZATION AND DEFINITIONS**

Sec

**401.1** The Office of Commercial Space Transportation.

**401.3** The Director of Commercial Space Transportation.

**401.5** Definitions.

#### **401.1 The Office of Commercial Space Transportation.**

The Office of Commercial Space Transportation, referred to in these regulations as the "Office," is a unit within the Office of the Secretary of Transportation and is located in the Department of Transportation Headquarters, 400 Seventh Street. SW., Washington, DC 20590.

#### **401.3 The Director of Commercial Space Transportation.**

The Office is headed by a Director appointed by the Secretary of Transportation to exercise the Secretary's authority to license and otherwise regulate commercial space launch activities and to discharge the Secretary's responsibility to encourage, facilitate and promote commercial space launches by the United States private sector.

#### **401.5 Definitions**

As used in this chapter--

- a. **Act** means the Commercial Space Launch Act of 1984, Pub. L. 98-575.
- b. **Amateur rocket activities** means launch activities conducted at private sites involving rockets powered by a motor or motors having a total impulse of 200,000 pound-seconds or less and a total burning or operating time of less than 15 seconds, and a rocket having a ballistic coefficient--i.e., gross weight in pounds divided by frontal area of rocket vehicle--less than 12 pounds per square inch.
- c. **Director** means the Director of the Office of Commercial Space Transportation, or any person designated by the Director to exercise the authority or discharge the responsibilities of the Director.
- d. **Launch** means to place, or attempt to place, a launch vehicle and/or payload in a suborbital trajectory, in Earth orbit in outer space, or otherwise in outer space.
- e. **Launch activity** means the launch of a launch vehicle and any payload, the operation of a launch site, or both.
- f. **Launch vehicle** means any vehicle constructed for the purpose of operating in, or placing a payload in, outer space, and any suborbital rocket.
- g. **Licensee** means the person authorized by a license to conduct specified commercial launch activities and responsible for conducting such activities in conformance with applicable requirements.
- h. **Mission** means the objective to be accomplished by a proposed launch and includes the general plan for achieving that objective.
- i. **Operation of a launch site** means the conduct of approved safety operations at a permanent site to support the launching of vehicles and payloads.
- j. **Payload** means an object which a person undertakes to place in outer space by means of a launch vehicle, and includes subcomponents of a launch vehicle specifically designed or adapted for that object.

- k. **Person** means any individual and any corporation, partnership, joint venture, association, or other entity organized or existing under the laws of any State or Nation.
- l. **Safety operations** means the personnel, equipment, facilities, documented plans and procedures, and any other resource needed for safe preparation and launch of a launch vehicle and its payload.
- m. **State** and **United States** when used in a geographical sense, mean the several States, the District of Columbia, the Commonwealth of Puerto Rico, American Samoa, The United States Virgin Islands, Guam, and any other commonwealth, territory, or possessions of the United States: and
- n. **United States citizen** means:
1. Any individual who is a citizen of the United States;
  2. Any corporation, partnership, joint venture, association, or other entity organized or existing under the laws of the United States or any State; and
  3. Any corporation, partnership, joint venture, association or other entity which is organized or exists under the laws of a foreign nation, if the controlling interest in such entity is held by an individual or entity described in paragraph (a) or (b) of this definition. "Controlling interest" means ownership of an amount of equity in such entity sufficient to direct management of the entity or to void transactions entered into by management. Ownership of at least fifty-one percent of the equity in an entity by persons described in paragraph (a) or (b) of this definition creates a rebuttable presumption that such interest is controlling.

## **SUBCHAPTER B--PROCEDURE**

### **PART 404--REGULATIONS AND LICENSING REQUIREMENTS**

#### **Subpart A--General**

Sec.

**404.1** Scope.

**404.3** Filing of petitions to the Director.

**404.5** Action of petitions.

#### **Subpart B--Rulemaking**

**404.11** General.

**404.13** Petitions for extension of time to comment.

**404.15** Consideration of comments received.

[404.17](#) Additional rulemaking proceedings.

[404.19](#) Hearings.

*Authority: Secs. 8 and 13, Pub L. 98-575 (46 U.S.C. App. 2601 note).*

### **Subpart A--General**

#### **404.1 Scope**

Pursuant to sections 8 and 13 of the Act, this part sets forth the procedures for issuing regulations to implement the Act and for eliminating or waiving requirements of Federal law otherwise applicable to the licensing of commercial space launch activities.

#### **404.3 Filing of petitions to the director**

- a. Any interested person may petition the Director to issue, amend or repeal a regulation, to eliminate as a requirement for a license any requirement of Federal law applicable to commercial launch activities, or to waive any such requirement in the context of a specific application for a license.
- b. Each petition filed under this section shall:
  1. Be submitted in duplicate to the Documentary Services Division., Attention Docket Section, Room 4107, U.S. Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590;
  2. Set forth the text or substance of the regulation or amendment proposed, the regulation to be repealed, or the licensing requirement to be eliminated or waived;
  3. In the case of a petition for a waiver, explain the nature and extent of the relief sought;
  4. Contain any facts, views, and data available to the petitioner to support the action requested; and
  5. In the case of a petition for a waiver, be submitted at least 60 days before the proposed effective date of the waiver unless good cause for later submission is shown in the petition.
- c. A petition for rulemaking filed under this section shall contain a summary, which the Director may cause to be published in the Federal Register, which includes:
  1. A brief description of the general nature of the action requested; and
  2. A brief description of the pertinent reasons presented in the petition for instituting the rulemaking.

#### **404.5 Action on petitions**

- a. General. No public hearing, argument or other proceeding is held on a petition before its

disposition under this section.

- b. Grants. In the case of a petition for a waiver, the Director may grant the waiver if the Director determines that the waiver is in the public interest and will not jeopardize public health and safety, the safety of property, or any national security or foreign policy interest of the United States. In all other cases, if the Director determines that the petition contains adequate justification, the Director initiates a rulemaking action under Subpart B of this part.
- c. Denials. If the Director determines that the petition does not justify initiating rulemaking action or granting the waiver, the petition is denied.
- d. Notification. Whenever the Director determines that a petition should be granted or denied, the petitioner is notified of the Director's action and the reasons supporting it.

### **Subpart B--Rulemaking**

#### **404.11 General.**

- a. Unless the Director finds, for good cause, that notice is impractical, unnecessary, or contrary to the public interest, a notice of proposed rulemaking is issued and interested persons are invited to participate in proceedings related to each substantive rule proposed.
- b. Unless the Director determines that notice and comment is necessary or desirable, interpretive rules, general statements of policy, and rules relating to organization, procedure, or practice are issued as final rules without notice or other proceedings.
- c. In the Director's discretion, interested persons may be invited to participate in the rulemaking proceedings described in *404.19* of this Subpart.

#### **404.13 Petitions for extension of time to comment.**

- a. Any person may petition the Director for an extension of time to submit comments in response to a notice of proposed rulemaking. The petition shall be submitted in duplicate not less than three days before expiration of the time stated in the notice. The filing of the petition does not automatically extend the time for petitioner's comments.
- b. The Director grants the petition only if the petitioner shows a substantive interest in the proposed rule and good cause for the extension, and if the extension is in the public interest. If an extension is granted, it is granted as to all persons and is published in the Federal Register.

#### **404.15 Consideration of comments received**

All timely comments are considered before final action is taken on a rulemaking proposal. Late filed comments may be considered to the extent possible, provided they do not cause undue additional expense or delay.

#### **404.17 Additional rulemaking proceedings**

The Director may initiate any additional rulemaking proceedings, if necessary or desirable. For example, the Director may invite interested persons to present oral arguments, participate in conferences, appear at informal hearings, or participate in any other proceedings.



## **404.19 Hearings.**

- a. Sections 556 and 557 of Title 5, United States Code, do not apply to hearings held under this part. As a fact-finding forum, each hearing held under this part is nonadversarial and there are no formal pleadings or adverse parties. Any rule issued in a proceeding in which a hearing is held is not based exclusively on the record of the hearing, but on the entire record of the rulemaking proceeding.
- b. The Director designates a representative to conduct any hearing held under this part. The General Counsel designates a legal officer for the hearing.

## **PART 405-INVESTIGATIONS AND ENFORCEMENT**

Sec.

[405.1](#) Monitoring of licensed and other activities.

[405.3](#) Authority to modify, suspend or revoke.

[405.5](#) Emergency orders.

[405.7](#) Civil penalties.

*Authority: Secs. 14, 17 end 19, Pub. L 98-575 (49 U.S.C App. 2601 note).*

### **405.1 Monitoring of licensed and other activities**

Each licensee shall allow and cooperate with Federal officers or employees or other individuals authorized by the Director to observe licensed activities, including launch sites, production facilities or assembly sites used by any contractor or a licensee in the production or assembly of a launch vehicle and in the integration of a payload with its launch vehicle. Such observations are conducted in order to monitor the activities of the licensee or contractor at such time and to such extent as the Director considers reasonable and necessary to determine compliance with the license or to carry out the Director's responsibilities pertaining to payloads for which no Federal license, authorization, or permit is required.

### **405.3 Authority to modify, suspend or revoke.**

- a. Upon application by the licensee or upon the Office's own initiative, the Office may modify a license issued under this chapter if the Office finds that the modification is consistent with the requirements of the Act.
- b. If the Office finds that a licensee has substantially failed to comply with any requirement of the Act, any regulation issued under the Act, the terms and conditions of a license, or any other applicable requirement, or that public health and safety, the safety of property or any national security or foreign policy interest of the United States so require, the Office may suspend or revoke any license issued to such licensee under this chapter.
- c. Unless otherwise specified by the Office, any modification, suspension or revocation made by the Office under this section:

1. Takes effect immediately; and
  2. Continues in effect during any review of such action under Part 406 of this chapter.
- d. Whenever the Office takes any action under this section, the Office immediately notifies the licensee in writing of the Office's finding and the action which the Office has taken or proposes to take regarding such finding.

#### **405.5 Emergency orders.**

The Office may immediately terminate, prohibit or suspend a licensed launch or launch site operation if the Office determines that--

- a. Such launch or operation is detrimental to public health and safety, safety of property, or any national security or foreign policy interest of the United States; and
- b. The detriment cannot be eliminated effectively through the exercise of other authority of the Office.

#### **405.7 Civil penalties**

- a. Pursuant to section 19 of the Act, any person found by the Office, after notice and opportunity to be heard on the record in accordance with section 554 of Title 5, United States Code, to have violated a requirement of the Act, a regulation issued under the Act, or any term, condition or restriction of any license issued or transferred by the Office, shall be liable to the United States for a civil penalty. Each day of a continuing violation shall constitute a separate violation. The amount of such civil penalty shall be assessed by the Office by written notice. The Office may compromise, modify, or remit, with or without conditions, any civil penalty which is subject to imposition or which has been imposed under this section.
- b. If any person fails to pay a civil penalty assessed against such person after the penalty has become final or if such person appeals an order of the Office, and the appropriate court has entered final judgment in favor of the Office, the Office shall recover the civil penalty assessed in any appropriate district court of the United States.
- c. For purposes of conducting any hearing under this section, the Office may:
  1. Issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, documents, and other records:
  2. Seek enforcement of such subpoenas in the appropriate district court of the United States; and
  3. Administer oaths and affirmations.

### **PART 406--ADMINISTRATIVE REVIEW**

Sec.

[406.1](#) Hearings.

[406.3](#) Submissions; oral presentation.

[406.5](#) Administrative law judge's recommended decision.

*Authority: Sec. 12, Pub. L 98-575 (49 U.S.C. App. 2601 note).*

#### **406.1 Hearings**

- a. Pursuant to section 12 of the Commercial Space Launch Act, the following are entitled to a determination on the record after an opportunity for a hearing in accordance with section 554 of Title 5, United States Code:
  1. An applicant for a license and a proposed transferee of a license regarding any decision to issue or transfer a license with conditions or to deny the issuance or transfer of such license;
  2. An owner or operator of a payload regarding any decision to prevent the launch of such payload;
  3. A licensee regarding any decision to suspend, modify, or revoke a license, or to terminate, prohibit, or suspend any licensed launch activity, and
  4. A person found by the Office to have violated a requirement of the Act, a regulation issued under the Act, or any term, condition or restriction of any license issued or transferred by the Office if the Office seeks civil penalties.
- b. An administrative law judge will be designated to preside over any hearing held under this part.

#### **406.3 Submissions; oral presentation.**

- a. Determinations under this part will be made on the basis of written submissions unless the administrative law judge, on petition or on his or her own initiative, determines that an oral presentation is required.
- b. Submissions shall include a detailed exposition of the evidence or arguments supporting the petition.
- c. Petitions shall be filed as soon as practicable, but in no event more than 30 days after issuance of the Office's decision or finding under *406.1*.

#### **406.5 Administrative law judge's recommended decision.**

- a. The recommended decision of the administrative law judge shall be reviewed by the Director, who shall make the final decision on the matter at issue. The Director shall make such final decision within thirty days of issuance of the recommended decision.
- b. The authority and responsibility to review and decide rests solely with the Director and may not be

delegated.

## **SUBCHAPTER C--LICENSING**

### **PART 411--POLICY**

Sec.

[411.1](#) General.

[411.3](#) Review procedures.

[411.5](#) Safety approval.

[411.7](#) Mission approval.

[411.9](#) Information requirements.

*Authority: Secs 3, 5 and 6, Pub. L 98-575 (49 U.S.C. App. 2601 note).*

#### **411.1 General**

The Office of Commercial Space Transportation may issue and transfer licenses authorizing launches, the operation of launch sites, or both.

#### **411.3 Review procedures**

- a. The evaluation of license requests for unmanned launches involves two reviews, Safety Review and Mission Review, designed to address in the most effective and least burdensome manner the two general areas of Federal concern:
  1. the efficacy of the proposed safety operations to support safe preparation and launch of a launch vehicle and any payload; and
  2. significant issues affecting United States national security interests, foreign policy interests, or international obligations which might be associated with the proposed launch. These reviews may be conducted independently of each other and in whichever order, sequential or concurrent, is more appropriate to the needs of the applicant.
- b. Requests for licenses authorizing the operation of a launch site are reviewed on the basis of the applicant's capability to operate a facility where safety operations are conducted on a continuing basis as support for the launching of a specified class of launch vehicles.

#### **411.5 Safety approval**

- a. Applicants proposing to conduct all of their own safety operations at a private launch site must demonstrate that they possess the resources needed for safe preparation and launch of a launch vehicle and any payload to be carried by such vehicle. In these circumstances, a comprehensive review of the applicant's proposed safety operations must be performed in order to determine whether safety approval can be granted.

- b. If an applicant proposes to launch from a Federal range, as the Act encourages, it is the Office's view that reliance on safety-related launch property and services found at these ranges is an appropriate means of assuring that the applicant's launch activities can be conducted safely. As a general matter, a commercial launch site operated under the authority of a license issued by the Office should also be capable of providing such an assurance of safety. If an applicant proposes to contract for the services of a Federal range or a private launch site operated under the authority of a license issued by the Office, safety approval will ordinarily be given once the applicant has been accepted by a range or site capable of handling the launch activity proposed. All launch licenses issued under these circumstances shall be conditioned by the requirements that the applicant:
  1. Comply with all specified safety requirements and procedures of the range or launch site in question and
  2. Inform the Office of and obtain approval for any planned or proposed deviations from or alternatives to such requirements or procedures.

#### **411.7 Mission approval**

- a. General. Mission approval is granted unless some element of the proposed launch poses a threat to U.S. national security or foreign policy interests, constitutes a hazard to public health and safety or safety of property, or is inconsistent with international obligations of the United States. The Office shall work with applicants to correct or eliminate any defect in a proposal which impedes granting mission approval.
- b. Payloads. A proposal to launch any foreign payload or a payload not covered by existing FCC or NOAA regulation must be reviewed in consultation with other appropriate Federal agencies in order to determine that the launch of such payload will not jeopardize public health and safety, safety of property, or any national security or foreign policy interest of the United States. The Office, when requested to do so, shall provide payload operators or owners with the determination in advance of a launch license request or request for mission approval. Subsequent reviews of payloads within the same category shall be considered on a routine basis and shall focus on new or distinctive elements of the specific payload to be launched.

#### **411.9 Information requirements.**

The Office shall make available current compilations of the basic information an applicant is required to submit in order to initiate an appropriate review of any proposed commercial launch activity subject to the Office's authority. These information requirements are not intended to be all inclusive and the submission of the required information does not, in itself, demonstrate the qualifications of an applicant. The nature of individual proposals may require the submission of additional information.

## **PART 413--APPLICATIONS**

Sec.

[413.1](#) Scope.

[413.3](#) Pre-application consultation.

[413.5](#) Application.

[413.7](#) Confidentiality.

[413.9](#) Review of applications.

[413.11](#) Modifications.

[413.13](#) Issuance of license.

[413.15](#) Terms and conditions of license.

[413.17](#) Certain Rights Not Conferred by license.

[413.19](#) Substantial and significant changes in information furnished to the office.

*Authority: Secs. 9, 10, 11, and 20 Pub. L 98-575 (49 U.S.C. App. 2061 note).*

### **413.1 Scope.**

The regulations in this part prescribe the application procedures common to licensing all commercial space launch activities. The regulations applying exclusively to launch licenses are contained in Part 415 of this subchapter.

### **413.3 Pre-application consultation.**

Applicants are encouraged to consult with the Office of Commercial Space Transportation at the earliest possible planning stages. Such consultation may reveal potential problems with a proposal and allow changes to be made when they are less likely to result in significant delay or costs to the applicant.

### **413.5 Application.**

- a. Form. Applications shall be in writing and filed in duplicate with the Office of Commercial Space Transportation, S-50, 400 Seventh Street, SW., Washington, DC 20590. Attention: Applications Review Branch.
- b. Types. Applications to the Office may request issuance or transfer of a license authorizing a launch or the operation of a launch site. Applications may also be made, separately and in advance of a license application, requesting an approval or determination that must be secured before a license can be issued or transferred.
- c. Signature. Applications shall be signed as follows:
  1. For a corporation: By an officer authorized to act for the corporation in licensing matters.
  2. For a partnership or a sole proprietorship: By a general partner or proprietor, respectively;  
or
  3. For an association or other entity: By a principal executive officer.

### **413.7 Confidentiality.**

- a. Information or data submitted to the Office may be designated as confidential by the person or agency furnishing such data or information.

- b. A request that information or data be treated confidentially should be made in writing at the time the information is submitted and should state the period of time for which confidential treatment is desired.
- c. A request for confidential treatment will be associated with previously submitted information to the extent that it is practicable in light of prior distribution of such information.
- d. Information requested to be treated confidentially must be clearly marked with an identifying legend such as "Proprietary Information" or "Confidential Treatment Requested." Where this marking proves impracticable, a cover sheet containing the identifying legend must be securely attached to the compilation of information for which confidential treatment is requested.
- e. Pursuant to section 9(c) of the Act, information for which confidential treatment has been requested, as provided above, or information that qualifies for exemption under section 552(b)(4) of Title 5, United States Code, will not be disclosed unless the Director determines that the withholding of such data or information is contrary to the public or national interest.

#### **413.9 Review of applications**

- a. Each application shall contain the information prescribed by the Office in order to initiate an appropriate review of the proposed launch activity. This information can be obtained by writing to the Office of Commercial Space Transportation, S-50, 400 Seventh Street SW., Washington, DC 20590, or by calling (202) 366-5770.
- b. The Office determines whether an application is substantially complete and, if so, accepts the application for review.
- c. Applications found by the Office to be incomplete or so speculative as to make review inappropriate will be returned to the applicant with a statement of the reasons therefor.
- d. Once an application is accepted, the Office initiates an appropriate review in light of the specific action requested in the application. Pursuant to section 20 of the Act, the Office shall consult with the Department of Defense on all matters affecting national security and with the Department of State on all matters affecting foreign policy, including the issuance or transfer of each license.
- e. The Office makes a determination on an application as expeditiously as possible but, in the case of a license application, not later than 180 days after receipt of such application. If the Office has not made a determination within 120 days after receipt of such application, the Office informs the applicant of any pending issues and of actions required to resolve such issues.

#### **413.11 Modifications**

Applications may be modified, supplemented, or corrected by the applicant at any time prior to issuance of the Office's decision.

#### **413.13 Issuance of license**

The Office issues or transfers a license authorizing the conduct of commercial space launch activities by

the applicant if the Office determines, after review, that the applicant has, and will continue to have, the ability to comply with all requirements for a license, including the ability to conduct safe launch or launch site operations.

#### **413.15 Terms and conditions of license**

- a. Each license issued or transferred under this section shall specify the activities authorized by the license, the name of each person responsible under the license for the conduct of such activities, the period of time for which the license is valid, and such other terms and conditions as may be required to protect public safety, the safety of property, and national security and foreign policy interests of the United States.
- b. All licenses shall specify, as a condition of such license, that the licensee maintain an effective on-site means for verifying that the licensed launch activity conforms to representations made in the license application.

#### **413.17 Certain rights not conferred by licensee.**

No license shall confer any proprietary, property, or exclusive right in the use of any airspace, Federal launch facility, or Federal launch support facility. Issuance of a license does not affect the authority of the Federal Communications Commission under the Communications Act of 1934 (47 U.S.C. 151 et seq.) or the authority of the Secretary of Commerce under the Land Remote-Sensing Commercialization Act of 1984 (15 U.S.C. 4201 et seq).

#### **413.19 Substantial and significant changes in information furnished to the Office.**

- a. Each applicant is responsible for the continuing accuracy and completeness of information furnished to the Office to support a pending application or which formed the basis for any approval, determination or licensing action by the Office. Whenever such information is no longer substantially accurate and complete in all significant respects, or whenever there has been a substantial change as to any matter of decisional significance to the Office, the applicant shall, as promptly as possible, submit a statement furnishing such additional or corrected information as may be appropriate.
- b. Willful false statements made in applications and documents relating to applications or licenses are punishable by fine and imprisonment, U.S. Code, Title 18, Section 1001, and by appropriate administrative sanctions, including license revocation and civil penalties.

### **PART 415--LAUNCH LICENSES**

#### **Subpart A--General**

**415.1** Scope.

**415.3** When a launch license is required.

**415.5** Approvals required for a license.

**415.7** Incorporation of approvals



[415.9](#) Standard conditions.

[415.10](#) Registration of space objects

### **Subpart B--Safety Review**

[415.11](#) Scope.

[415.13](#) General standards for reviewing safety operations.

[415.15](#) When to request safety approval.

[415.17](#) Incorporation of safety approval.

### **Subpart C--Mission Review**

[415.21](#) Scope.

[415.23](#) When to request mission approval.

[415.25](#) Incorporation of mission approval.

### **Subpart D--Environmental Impacts of Launch Activities**

[415.31](#) General.

[415.33](#) Environmental information.

*Authority: Secs. 6, 7, 8, 9, Pub L. 98-575 (49 U.S.C. App. 2601 note).*

### **Subpart A--General**

#### **415.1 Scope**

This part contains the procedures and information requirements which apply exclusively to launch license applications and supplements the general application procedures in *Part 413*.

#### **415.3 When a launch license is required.**

- a. The launch of a launch vehicle from U.S. territory by any person, or from outside U.S. territory by any individual or any corporation, partnership, joint venture, association of other entity organized or existing under the laws of the United States or any state, must be authorized by a license issued under this part.
- b. The launch of a launch vehicle by a foreign corporation or other entity controlled by a United States citizen, as defined in section 401.5 of this Chapter, at any place which is both outside the United States and outside of the territory of any foreign nation when there is no agreement in force between the United States and a foreign nation which provides that such foreign nation shall exercise jurisdiction over such launch, must be authorized by a license issued under this part.
- c. The launch of a launch vehicle by any foreign corporation or other entity described in paragraph (b)

of this section from the territory of a foreign nation, when there is in force an agreement between the United States and such foreign nation concerning the exercise of jurisdiction by the United States over such launch must be authorized by a license issued under this part.

#### **415.5 Approvals required for a license.**

A license authorizing an unmanned launch is issued or transferred after the Office grants an applicant both mission and safety approvals. These approvals may be requested separately and in advance of a license request, as provided in *415.15* and *415.23* of this subpart.

#### **415.7 Incorporation of approvals.**

- a. Any approval or determination made by the Office before a license has been requested, as provided in 413.5 of this subpart, is made part of the record upon which the Office makes a decision to issue a launch license with conditions or to deny a launch license.
- b. An approval or determination remains valid, and the Office does not reopen any part of a review which formed the basis for an approval or determination, as long as the information submitted as part of the review and other matters of decisional significance to the Office remain accurate and valid.

#### **415.9 Standard conditions.**

All launch licenses shall contain those conditions which the Office determines to be necessary and appropriate to protect public health and safety, the safety of property, and national security and foreign policy interests of the United States. Failure to comply with any license condition may be cause for revocation of the license or the initiation of other enforcement actions by the Office. Standard conditions in licenses include requirements for the licensee to do the following:

- a. Secure at least the minimum amount of third-party liability insurance specified by the Department;
- b. Adhere strictly to specified range safety regulations and procedures;
- c. Comply with requirements concerning pre-launch record keeping and notifications, including those pertaining to Federal airspace restrictions and military tracking operations: and
- d. Comply with Federal inspection, verification and enforcement requirements.

#### **415.10 Registration of space objects**

- a. In accordance with Article IV of the 1975 Convention on Registration of Objects Launched Into Outer Space, each licensee is responsible for registering all objects placed in space in the course of conducting activities authorized by its license, except for objects owned by a foreign entity. Registration of objects owned by a foreign entity is the responsibility of that foreign entity.
- b. Each licensee shall, within 30 days after launch, submit to the Office the following information concerning any vehicle or other object it has launched into outer space:
  1. The international designator of the space object(s);

2. Date and location of launch;
3. Basic programmed orbital parameters. including:
  - i. Nodal period,
  - ii. Inclination,
  - iii. Apogee;
4. General function of the space object.

## **Subpart B--Safety Review**

### **415.11 Scope**

Safety Review is the procedure for determining whether an applicant can safely conduct the preparation and launch of the proposed launch vehicle and any payload. This review focuses on the elements of an applicant's safety operations, including the proposed launch site, procedure, personnel, and equipment. A safety approval granted by the Office does not confer any approval or authorization an applicant or licensee must obtain from the operator of a Federal or licensed range, or create any presumption or inference that such approval or authorization will be granted.

### **415.13 General standards for reviewing safety operations.**

- a. ***Launch Site.*** The location, size and design configuration of the proposed site shall ensure that off-site persons and property are not exposed to an unreasonable risk of harm.
- b. ***Procedures.*** User and range operator procedures must be appropriate for assuring pre-launch check-out and validation of all launch safety systems (ground or flight); control of pre-launch and launch hazards to the public; trajectory flight safety analysis; and safe flight operations from ignition through impact for suborbital launches and through orbital injection or escape velocity for orbital launches.
- c. ***Personnel.*** Range safety personnel shall be qualified and possess appropriate training and experience.
- d. ***Equipment.*** Range safety equipment and instrumentation and vehicle safety systems shall be adequate and appropriate to support safe operations.

### **415.15 When to request safety approval**

An application for safety approval may be made as a part of a launch license request or, in the alternative, in advance of a launch license request.

### **415.17 Incorporation of safety approval**

A safety approval made by the Office under this part may be made part of a licensing record pursuant to 415.7 of this Subpart.

## **Subpart C--Mission Review**

### **415.21 Scope.**

Mission Review is the procedure for identifying significant issues affecting United States national interests and international obligations that may be associated with a proposed launch. Except for safety operations covered by 415.11-415.17 of this part, Mission Review covers all aspects of a proposed launch including any payload to be launched. For a payload not subject to FCC or NOAA regulation, the Office must determine whether to prevent launch of the payload because to launch it would jeopardize public health and safety, the safety of property, or any national security or foreign policy interest of the United States.

### **415.23 When to request mission approval.**

An application for mission approval may be made as part of a launch license request or, in the alternative, in advance of a launch license request. Application for a determination on a payload not regulated by the FCC or NOAA may be made as part of or in advance of any other request.

### **415.25 Incorporation of mission approval.**

A mission approval or payload determination made by the Office under this part is made part of a licensing record pursuant to 415.7 of this subpart.

## **Subpart D--Environmental Impacts of Launch Activities.**

### **415.31 General**

In accordance with the requirements of the National Environmental Policy Act, 42 U.S.C. 4321 et seq., (NEPA), the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA, 40 CFR Parts 1500-1508, and the Department of Transportation's Procedures for Considering Environmental Impacts, DOT Order 5610.1C1, the environmental impact of licensing commercial launch activities are required to be considered by the Office. The effects of most projected commercial launch activities are already addressed in the Office's programmatic environmental assessment or in environmental impact statements for existing launch sites. The Office will determine whether a proposed launch activity is adequately addressed in these documents. Applicants may be required to provide additional information concerning the environmental effects of a proposed launch activity.

### **415.33 Environmental information**

Applicants will be required to submit environmental information concerning:

- a. Proposed new launch sites not covered by existing environmental documentation;
- b. A proposed new launch vehicle with characteristics falling measurably outside the parameters of existing environmental documentation;
- c. Proposed launches from established sites involving vehicles with characteristics falling measurably outside the parameters of the existing environmental impact statements covering those sites;
- d. A proposed payload that may have significant environmental impacts in the event of a launch accident; and

e. Other factors as determined by the Office.

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*1 This order is available from the Office of Commercial Space Transportation, Department of Transportation, S-50, 400 7th Street S.W., Washington, DC 20590.*

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