Proposed Categorical Exclusions for Revision of FAA Order 1050.1E

Overview

The Federal Aviation Administration (FAA) is revising Order 1050.1E, Change 1. As part of this revision process, the FAA is developing several new categorical exclusions (CATEXs) and revising existing CATEXs. Development of this package for CEQ review and comment is based on CEQ's *Final Guidance for Federal Departments and Agencies on Establishing, Applying, and Revising Categorical Exclusions under the National Environmental Policy Act* (75 *Federal Register* 75628 [December 6, 2010]). The clarified format and procedures in the new CEQ guidance were utilized as a basis for developing new CATEXs that would be applicable to FAA's actions and activities.

The CEQ guidance (available at http://www.nepa.gov) identifies at least two situations where it may be warranted for an agency to develop and propose new/revised/modified CATEXs:

1. When an agency has "determine[d] that a class of actions—such as payroll processing, data collection, conducting surveys, or installing an electronic security system in a facility—can be categorically excluded because it is not expected to have significant individual or cumulative environmental effects."[1]
2. When an agency has "performed NEPA reviews of a class of proposed actions and found that, when implemented, the actions resulted in no significant environmental effects."[2]

Further, the CEQ guidance recommends the following process to substantiate new/revised/modified CATEXs and to support the determination that the actions do not individually or cumulatively have a significant effect on the environment: [3]

1. Gather information to support the proposed CATEX;
2. Evaluate the information; and
3. Make findings to explain the basis for the new proposed CATEX.

The first step was to gather information. The CEQ guidance indicates that the amount and detail of information required to substantiate a new CATEX "depends on the type of activities" proposed to be excluded.[4] Accordingly, the CEQ guidance states that "actions that are reasonably expected to have little impact (for example, conducting surveys…) should not require extensive supporting information."[5] Actions that "do not obviously lack significant environmental effects"[6] require more information. The CEQ guidance indicates that any of the following information sources, or any combination of such sources, can be used to justify new proposed CATEXs: (1) previous National Environmental Policy Act (NEPA) analysis for

1 75 *Federal Register* 75632.
2 Id.
3 75 *Federal Register* 75633-34.
4 75 *Federal Register* 75633.
5 Id.
6 Id.

implemented actions; (2) impact demonstration projects; (3) professional staff, expert opinion, or scientific analyses; and (4) other agencies' experiences, otherwise known as benchmarking.

The CATEX Justification Package has been broken up by each division within FAA that is proposing new CATEXs or revising previous CATEXs. The CATEX justification package includes the following:

- Section I includes *FAA Air Traffic Environmental Cleanup Program ATO-ECU* new CATEXs on environmental investigation and remediation of hazardous waste
- Section II includes FAA Office of Airports (ARP)'s four new CATEXs on approval of solar and wind projects, fee-simple purchase of land, changing the use of a runway to a taxiway, and the construction or relocation of a level one airport traffic control tower. In addition, ARP has modified four existing CATEXs including demolition of buildings, facilities, or structures, establishing a displaced threshold, installing engineered material arresting systems (EMAS), and allowing the funding of installation of On-airport aboveground storage tanks or protected underground storage tanks.
- Section III includes FAA Air Traffic Mission Support Services' new CATEX for increases in the altitude of special use airspace
- Section IV includes slight modifications to current CATEXs to provide clarity in the use of each of these CATEXs.
- Section V lists the proposed changes to the CATEXs in FAA Order 1050.1E.

Sections II through V contain formatting conventions to highlight revisions made to the CATEXs. **Bolded blue** formatting indicates new text, green formatting indicates text that has been moved within a CATEX, and ~~strikethrough red~~ formatting indicates text has been deleted from the existing CATEX.

Section I: FAA Air Traffic Environmental Cleanup Program (ATO-ECU)

The Air Traffic Environmental Cleanup (ECU) Program's approach has been to gather documentation from professional staff and expert opinions, evaluate activities included in Environmental Assessments (EAs) conducted by the FAA that resulted in Findings of No Significant Impact (FONSIs), and conduct benchmarking analysis of other agencies' similar CATEXs to support the determination that ECU Program's proposed CATEXs are categories of actions that, under normal circumstances, do not individually or cumulatively have a significant impact on the environment. The FAA evaluated information gathered and made findings based on the collected information to substantiate the proposals. See Attachments 1 and 2 for documentation supporting proposed CATEXs that do not individually or cumulatively significantly affect the environment.

ATO-ECU PROPOSED NEW CATEGORICAL EXCLUSIONS

Proposed New Categorical Exclusion ATO-ECU #1: Environmental Investigation of Hazardous Waste or Substance Contamination

Proposed Text:

> *5-6.4ee. Environmental investigation of hazardous waste or hazardous substance contamination on previously developed airport or FAA-owned, leased, or operated sites including temporary activities such as minor excavation, soil test borings, and installation of groundwater testing and monitoring wells, piezometers and other groundwater well monitoring devices impacting approximately one acre in aggregate surface area. The work plan or Sampling and Analysis Plan (SAP) for the project must integrate current industry best practices and address, as applicable, surface restoration, well and soil boring decommissioning and the collection, storage, handling, transportation, minimization, and disposal of investigation derived wastes and other Federal or state regulated wastes generated by the investigation. The work plan or SAP must be coordinated with and, if required, approved by the appropriate or relevant governmental agency or agencies prior to commencement of work. (ATO, ARP)*

This CATEX is expected to fall under the CATEXs for Facility Siting, Construction and Maintenance category heading of FAA Order 1050.1F. Under that Order, this proposed CATEX would require a review of extraordinary circumstances.

Environmental Review of the Proposed CATEX

The language included in the proposed CATEX was developed based on activities whose environmental effects are typically not significant. The activities included in the CATEXs are required for conducting environmental investigations or site characterizations necessary to determine the need for and support decisions regarding the type of remedial action to be performed. The review of the environmental effects takes into account that these activities are conducted in accordance with pertinent governmental requirements and industry best management practices. In considering whether the activities covered by the proposed CATEX could be categorically excluded under the criterion in 40 CFR § 1508.4, the FAA used the following sources of information: (1) NEPA analyses contained in EAs prepared for previously-conducted FAA actions that contained similar activities and received FONSIs; (2) professional

judgment and expert opinion regarding the environmental effects of activities normally conducted during environmental investigations for FAA and other organizations; and (3) comparison with CATEXs established by other agencies.

All reviewed EAs with FONSIs involved FAA led actions where the project and associated activities were conducted by either FAA personnel, FAA-funded contractors, or a mixture of both. Elements evaluated in each EA include: the activities of the project, the discussion of extraordinary circumstances encountered, mitigation activities require, and the process utilized by FAA as part of each EA to confirm the lack of environmental impact. Activities included within the proposed CATEX were reflected, in whole or in part, within the scope of the EAs reviewed and were all conducted on previously developed or semi-developed properties owned, leased, or operated by the FAA, thus minimizing potential impacts to natural resources.

The EAs differed in a number of significant areas from the proposed CATEX. Primarily, the ECU Program does not conduct demolition or disposal of facilities or infrastructure excess to the FAA's requirements and will not impact facilities eligible for or listed on the National Registry of Historic Places (NRHP). The proposed CATEX requires disposal of investigation-generated waste in accordance with industry best practices and applicable governmental requirements; this includes removal, containerization, transportation and disposal of Federal- or state-regulated wastes generated from investigation of contaminated media. Also, only one of the EAs specified the size of the impacted area, 56 acres; the area impacted in the other EAs was undefined. Finally, while the previously-implemented actions involved coordination with appropriate Federal or state agencies to ensure and confirm lack of environmental impact from the proposed activities, approval by the appropriate Federal or state agency for soil sampling and analytical testing was not clearly identified.

Administrative records for CATEXs issued by other Federal agencies covering activities similar to those included in the proposed CATEX were not available for review. Therefore, activities specifically outlined in the agencies' CATEXs were evaluated for similarities to and differences from this proposed CATEX. Most of the CATEXs reviewed are broadly written and could be construed to contain activities not explicitly stated. For example, an environmental professional would assume sampling and intrusive testing "*to determine if hazardous wastes, contaminants, pollutants, or special hazards (for example, asbestos, PCBs, lead-based paint, or unexploded ordnance) are present (REC required). (32 CFR § 651 Appendix B)"* includes soil borings. A more strict comparison was used, and is included in Exhibit I-1, below. This comparison indicates the proposed CATEX differs from CATEXs issued for similar activities in four areas: (1) landscaping or site restoration; (2) minor excavation; (3) storage and disposal of IDW; and (4) conformance to or use of industry best practices. Landscaping or site restoration minimizes potential impacts associated with loss of habitat through revegetation with native species. Minor excavation may be included with "intrusive sampling," but was not specifically identified. Without administrative records, its inclusion or exclusion in other agency CATEXs cannot be confirmed. Similarly, agency practices regarding collection, storage and disposal of IDW cannot be confirmed. As indicated above, such practices are typically included for appropriate Federal or state regulator review and, if required, approval in a project's SAP. Therefore, these activities are anticipated to have minimal overall impact. Finally, the use of industry best practices ensures that investigative activities obtain information required to make remedial decisions, minimizes risks of rework and additional sampling, and minimizes overall environmental impacts.

In conjunction with professional judgment and expert opinion, and based on the EAs analyzed and the comparison to other agency CATEXs outlined in Exhibit I-1, the activities covered by the proposed CATEX appear to be the same or even less impactful than those performed previously by FAA or activities currently being CATEXed by other Federal agencies.

Based on the foregoing information and analysis, the FAA finds that under normal circumstances the activities covered by the proposed CATEX do not individually or cumulatively have a significant effect on the human environment. The analysis of extraordinary circumstances required by the FAA's NEPA-implementation procedures would ensure that the CATEX would not be applied to actions that could have such effects.

Previously Implemented Actions

Attachment 2 provides a summary and analysis of seven EAs developed for FAA actions which received FONSIs for projects including, in whole or in part, the activities in the proposed CATEX. The activities included in the EAs that are relevant to the proposed CATEX are as follows:

- Landscaping and Grading
- Soil sampling and analytical testing
- Installation of groundwater wells
- Trenching and excavation

The EAs reviewed included soil (surface and sub-surface) sampling for lead-based paint and fuel or petroleum products released to the environment. Soil sampling activities included in the EAs conformed to United States Environmental Protection Agency (EPA), Resource Conservation and Recovery Act (RCRA) requirements for characterization of potentially hazardous waste and characterization of releases from fuel underground storage tanks (USTs), as well as pertinent State of Alaska regulations for investigation and remediation of hazardous substances. As reflected in the EAs (and consistent with industry best practices) soil sampling methods, quantities, and analyses are generally documented in a project work-plan or SAP submitted for review and, if required, approval by the appropriate or relevant governmental agency or agencies. SAPs also address any required sub-surface sampling, groundwater well installation, and associated analysis. Work-plans or SAPs typically include the scope of the environmental investigation being conducted, the type of samples being collected, sampling methodology, criteria for selecting sampling locations, the analytical methods to be used, and identification of the laboratory conducting the analysis. Additionally, the work-plan or SAP will address waste minimization strategies and waste handling, and if necessary, disposal of sample preservatives (i.e., methanol or other compounds), handling and disposal of IDW and solid waste generated as part of the project, and sample chain-of-custody procedures. Work-plans address project specific permit compliance requirements, site restoration requirements, and mitigation actions; work-plans also integrate industry best management practices into all work procedures occurring during the project. The proposed CATEX by its terms would apply only if all applicable Federal, state, and local requirements are followed.

Landscaping as included in the cited EAs involved filling excavations and other areas, and if necessary, grading of the ground surface and laying sod or seeding the area with either native species or plants approved by the appropriate governmental agencies. As areas encompassed by

these EAs were either previously developed or semi-developed, natural resource impacts were not anticipated or deemed not significant. The United States Fish and Wildlife Service (USFWS), the United States Army Corps of Engineers (USACE), and appropriate and relevant state agencies were consulted during the project planning process to confirm: endangered and threatened species, critical habitat, wetlands, coastal zone management plans, coastal barriers, scenic and wild rivers, local energy requirements, prime farmlands, and properties protected under Section 4(f) of the DOT Act (49 U.S.C. § 303(c)). Such resources were not impacted by any of these projects.

As a precautionary mitigation, buffer zones were defined to ensure that Bald Eagles potentially nesting in the vicinity of projects sites were not adversely impacted. As described in the single EA encompassing activities that would impact a wetland area, USACE was consulted, and appropriate permits and mitigation were conducted to minimize impacts. A sediment and erosion control and storm water pollution prevention plan, including a National Pollution Discharge Elimination System (NPDES) permit, was developed to maintain water quality for one of the seven projects evaluated.

The proposed CATEX is limited to environmental investigations conducted on property previously developed by the FAA or other parties, minimizing the potential for the presence of un-cataloged endangered or threatened flora or fauna, critical habitat, or wetland areas. As part of the analysis of extraordinary circumstances required under the FAA's NEPA-implementing procedures before the CATEX could be applied, the appropriate governmental agencies would be consulted to confirm whether these natural resources are present and, if so, whether they could be significantly affected.

Site restoration activities conducted as part of an environmental investigation are similar in nature to the landscaping included in the cited EAs, though typically focused on restoring the areas directly around testing boreholes, groundwater wells or test excavation, and the route used to access the sampling locations. In accordance with industry best practices, if reseeding or re-vegetation is necessary, the appropriate state or local natural resource office would be consulted regarding the strategy for landscaping and plant species to be used.

The environmental investigations outlined in the reviewed EAs are associated with releases to the environment by fuel storage tanks (FSTs) or storage tanks used for other hazardous materials or hazardous wastes. These occur on developed, previously developed or leased "pads," gravel-filled areas on which FAA facilities are placed or constructed. Pads range in size from ½ acre to multiple acres depending on the type and number of FAA facilities deployed at the site. Environmental soil borings and groundwater wells are installed utilizing drilling equipment, which includes all-terrain-vehicles (ATV), tracked or truck mounted direct push or auger equipment. Mobilizing equipment for installation of borings and wells to previously developed pads has the same impact as accessing facilities for on-going maintenance activities which utilize trucks, step vans or other maintenance vehicles, an already categorically excluded[7] activity. For un-developed areas, best practices for boring and well installation include accessing the areas via travelling perpendicular to developed roads or access routes; this minimizes off-road or off-pad impacts. Further travel from boring to boring or well to well is also minimized. Soil borings and

7 FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*, Section 310, *Categorical Exclusions for Facility Site, Construction and Maintenance*

ground water wells generally range from two to eight inches in diameter, and include the area impacted by drill cuttings as well as the broken bits of solid material removed from a borehole.

Most environment investigations are conducted to define the extent of contamination resulting from a single release to the environment and range from two to ten soil borings or groundwater wells, The total overall area impacted by environmental investigations typically is less than 1 acre, even at FAA facilities located on larger developed properties. This includes the area directly impacted by soil boring and well installation and impacts from accessing the area in which the boring or well is being installed. This aligns with historic environmental investigations, documented in site-specific environmental contamination characterization reports, which indicate that the surface impacts of individual releases at existing pads are generally less than one acre in surface area. Additionally, many remote FAA facilities may have sensitive habitats, endangered plant or animal species, or potential wetlands surrounding the already developed pad. Therefore, the ECU Program is limiting the proposed CATEX for environmental investigation to "previously developed" property (i.e., on the pad) and to areas less than one acre in size to avoid potential impacts to environmental resources outside the already-developed area.

Approximately half the EAs with FONSIs cited (4 of 7) included demolition, disposal or removal of existing facilities and infrastructure. They also cited cultural resource concerns associated with demolition of structures eligible for listing on the NRHP and the potential for finding previously unidentified archeological resources during excavation, drilling, or other soil disturbance activities. In all cases, the State Historic Preservation Officer (SHPO) was consulted during the project planning process, and mitigation activities were included as part of the project activities to avoid significant impacts to cultural resources. The ECU program does not demolish or dispose of facilities and associated infrastructure and does not anticipate such actions being covered by the proposed CATEX. Activities proposed for inclusion in this CATEX will occur on previously-developed property, thus minimizing the potential for discovery of cultural resources. Soil disturbance activities such as soil boring, groundwater well installation and excavation pose the highest probability for discovery of archeological artifacts, human or native remains or other cultural resources. As reflected in the referenced EAs and FONSIs, FAA contracts for environmental investigation include requirements for soil disturbance to cease and desist on discovery of human or native remains or other cultural resources archeological artifacts. As part of the analysis of extraordinary circumstances required under the FAA's NEPA-implementing procedures before the CATEX could be applied, SHPO and other appropriate Federal and state agencies would be consulted to identify known or potential cultural resources at the site and determine whether there may be a significant impact on those resources.

Groundwater well installation, for use as a potable water source, was conducted as part of many of FAA's previous actions. By contrast, the proposed CATEX will not allow for installation of potable drinking water wells. It will only allow for groundwater testing and monitoring wells installed as part of an environmental investigation utilizing the same or similar well construction methods. The groundwater testing or monitoring wells are anticipated to be removed upon completion of the environmental investigation, and are therefore more temporary in nature than the potable water wells referenced in the EAs. SAPs developed for environmental investigation address proposed groundwater test well installation methods, locations, sampling regime and well decommissioning methods, and are submitted for review and, if required, approval by the appropriate or relevant governmental agency or agencies.

Trenching and excavation were included in the activities addressed by the EAs and covered activities ranging from the removal of soils contaminated with hazardous substance or hazardous wastes, to excavation of foundations for housing and installation of water lines, sewer and other utilities. Excavation, as included in the proposed CATEX, generally involves development of test pits (typically a 4 to 8 foot deep by 2-3 foot wide excavation) for obtaining soil and sub-surface soil samples for analysis. For the excavations included in the EAs, test pits were filled and the excavated area immediately restored on completion of the environmental investigation. Such surface restoration would be required for an action to be covered by the proposed CATEX. Consistent with industry best practices, test pits would be limited to previously developed areas to minimize potential for impact to natural resources, endangered species or critical habitat, as well as cultural resources. While limiting test pits to previously developed areas also minimizes the potential for archeological impacts, work will cease immediately on discovery of any artifacts and notifications will be made to the local FAA District Office Safety and Environmental Compliance Manager (SECM) and the Service Area Environmental Cleanup Program Implementation Manager (PIM), who will make appropriate notifications to the SHPO.

The EAs referenced for previously implemented actions were chosen because they contain activities similar in nature to those included in the proposed CATEX. Though the EAs listed were all developed for FAA actions conducted in the State of Alaska, this fact should not affect the soundness of the analysis. Each EA was developed in accordance with a mixed regulatory framework of applicable Federal and state environmental regulations, and a similar mixed framework will apply regardless of in which state an action requiring NEPA evaluation is conducted. Additionally, each EA referenced was conducted at an FAA-leased, -owned or -operated property currently undergoing environmental investigation or remediation under the FAA's ECU Program. Because 83 percent of the ECU Program's current areas of concern (AOCs) are located in Alaska, and only 17% are in the contiguous United States (7.91% in Eastern, 4.1% in Central and 5.1% in Western) these EA are considered representative of potential environmental issues and associated permitting and mitigation requirements which are encountered during FAA environmental investigations. Finally, Alaska, with its extensive national and state parks, vast wetlands, extensive coastline and reliance on a natural resource-centered tourist industry, has a more conservative and rigid regulatory framework than most states. Using the CATEX developed for FST release investigations under paragraph 310u of FAA Order 1050.1E, fuel releases at the Cleveland, Ohio and the Miami, Florida Air Route Traffic Control Centers (ARTCC) were evaluated for potential extraordinary circumstances. Extraordinary circumstances were not applicable to either project, indicating the CATEX could be utilized for environmental investigation activities at both sites.

Impact Demonstration Projects

Due to the ongoing nature of the FAA's ECU Program, demonstration projects will not be conducted. Information regarding environmental impacts will be collected during conduct of normal environmental investigation and remediation projects to validate the proposed CATEX or identify necessary modifications.

Professional Judgment and Expert Opinion

It is the professional opinion and judgment of the following FAA and non-FAA environmental experts that the actions covered by the proposed CATEX do not individually or cumulatively have significant environmental impacts under normal circumstances. Their opinion is based on

expert knowledge and experience in the field of environmental cleanup, remediation, and restoration.

Consensus Professional Opinion

Environmental investigation of previously developed properties that involves minor excavation and surface restoration, including backfilling, are temporary in nature, and the ground integrity is restored upon completion of the activities. Many of the environmental investigation activities are conducted as part of a Phase II Environmental Due Diligence Audit (EDDA), site investigation (SI), or remedial investigation (RI) process and typically involve a range of surface intrusions as well as other surface disturbances that are temporary in nature. These activities may also include soil or groundwater sample collection, surveying, well drilling and installation, analytical testing, and site preparation. The activities are typically conducted to determine the presence or nature and extent of hazardous wastes, contaminants, pollutants, or special hazards (e.g., asbestos, polychlorinated biphenyls [PCBs], lead-based paint [LBP], unexploded ordnance). Activities that an environmental professional would typically associate with an environmental investigation may include:

- Surface and shallow sub surface (i.e., less than 4 feet below ground surface (bgs)) soil sampling techniques utilizing spoons, shovels, hand augers or shallow test pits or excavations.
- Sub-surface soil sampling, utilizing hand augers, direct push technology, or hollow stem auger drilling rigs (similar to and including equipment used for groundwater well installation). Proposed soil boring methods, proposed analytical regime and disposal of sampling related equipment or preservatives are generally included in a SAP that is submitted for review and, if required, approval by the appropriate or relevant governmental agency or agencies.
- Groundwater well installation, testing or sampling, and monitoring. Monitoring wells may be installed using direct push technology or using a hollow stem auger drill rig. A hollow stem auger drill rig is typically mounted on a flat-bed truck and includes an engine for driving the auger or drill housed in a drilling mast. Direct push technology includes drilling equipment which advances the small diameter sampling equipment by pushing or hammering without rotating the drill string. The size and type of drill equipment used is based on the depth of the groundwater well and subsurface conditions. Groundwater wells are installed and constructed (well casing, pump and other components) in compliance with a mixture of state and local regulatory standards and industry best practices, and are registered with either the state or local regulatory authority when required. Proposed well construction and decommissioning or disposal methods are generally included in a SAP that is submitted for review and, if required, approval by the appropriate or relevant governmental agency or agencies.
- Test pits are excavations typically four to eight feet in depth and the width of the backhoe bucket. This technique is used for quickly collecting sub-surface soil samples for analysis when site conditions and activities are conducive (e.g., excavators are already on site). The excavated materials are usually returned to the excavation, though regulators may require that the material excavated from test pits will be disposed of in accordance

with Federal or state regulations, depending on the suspected contaminant of concern and fresh or "clean fill" used to fill the test pit.

- Collection, characterization and disposal of IDW, which may include water purged during groundwater sample collection and monitoring well development, drill cuttings from soil test borings, personal protective equipment used during groundwater or soil sample collection, broken laboratory sample containers or jars and re-agent or sample preservative containers. IDW is managed in accordance with published EPA guidance and an IDW management plan is included in the SAP for the environmental investigation for review and, if required, approval by the appropriate or relevant governmental agency or agencies.

The consensus professional opinion of the below-named individuals, based on their experience with FAA and other public and private organizations conducting EDDAs, SIs, and RIs as part of managing the environmental liabilities of the organization, is that the activities covered by the proposed CATEX do not under normal circumstances result in significant environmental impacts. Industry best practices related to the installation and closure of soil borings and monitoring wells include: construction techniques to ensure aquifer cross contamination will not occur, collecting and disposing of IDW, and closing and sealing groundwater wells to ensure integrity of the aquifer. It is recognized that some of the activities considered by this CATEX could result in a proposal for further action. These further actions would be subject to appropriate environmental review in accordance with the FAA's NEPA-implementing procedures.

Professional Credentials

Name	Affiliation	Education	Training/Certificates	Years of Related Experience
Michael G. Waltermire	FAA	BS, Civil Engineering	PE	30
Daisy Mather	FAA	BS, Environmental Science MS, Earth Sciences		17
Alison Hulbert	FAA	BS, Natural Resources and Environmental Sciences MS, Environmental Policy	REP, USACE Wetland Delineator, PMP	18
Sam Swearingen	Booz Allen Hamilton	BS, Environmental Health Science; MBA	QEP, CHMM LEED-AP, PMP	21
Kurt Janisch	Booz Allen Hamilton	BS CE; MS Water Resource Engineering	Professional Engineer (Civil) - State of Colorado (#29104)	21
Jeff Furr	Booz Allen Hamilton	BA Earth Sciences; MS Environmental Science & Engineering	PMP	14

Benchmarking Other Agency's Experience

FAA's ECU Program reviewed and evaluated other agencies' existing CEs for actions similar to those that anticipated to be covered by the proposed CATEX discussed above. Many Federal

agencies have highly developed environmental cleanup programs to address environmental liabilities at government sites and facilities. Only the Department of Homeland Security's (DHS) Administrative Record regarding the United States Coast Guard (USCG) CATEX that supports our proposed CATEX was available. However, the administrative record only covered the adoption of the USCG CATEX by DHS. Therefore the full context of activities anticipated by each agency to be covered under the CE listed below can be characterized solely based on the language of the CATEX itself. Exhibit I-1 provides a summary comparison of activities included in other agencies' CATEXs for environmental investigation versus those incorporated in the proposed FAA ECU Program CATEX.

Exhibit I-1. Comparison of Proposed CATEX Activities to Other Agency CATEXs

Proposed FAA CATEX	U.S. Army	U.S. Air Force	GSA	DOE	USCG	BLM
Landscaping or Site Restoration						
Hazardous waste or hazardous substance contamination	X	X				X
Environmental investigation, including characterization and site characterization		X	X	X	X	X
Installation of environmental monitoring equipment, including piezometers and other groundwater monitoring devices			X	X	X	X
Minor Excavation						
Soil test borings		X	X	X	X	
Storage and disposal of investigation derived contaminated and non-contaminated wastes						
Industry best practices						
Applicable Federal, state or local requirements		X		X		
Sampling and analytical testing	X	X	X	X	X	X
Groundwater Well drilling, installation	X	X	X	X	X	
Trenching and Excavation and intrusive testing	X			X		
Boring and well decommissioning or closure			X	X	X	

The other agencies' CATEXs are described below:

- **U.S. Army** – Hazardous materials/hazardous waste management and operations: (3) Sampling, surveying, well drilling and installation, analytical testing, site preparation, and intrusive testing to determine if hazardous wastes, contaminants, pollutants, or special hazards (for example, asbestos, PCBs, lead-based paint, or unexploded ordnance) are present (REC required). *(32 CFR part 651 Appendix B)*

- **U.S. Air Force** – Undertaking specific investigatory activities to support remedial action activities for purposes of cleanup of hazardous spillage or waste sites or contaminated groundwater or soil. These activities include soil borings and sampling, installation, and operation of test or monitoring wells. This CE applies to studies that assist in determining final cleanup actions when they are conducted in accordance with interagency agreements, administrative orders, or work plans previously agreed to by EPA or state regulators. NOTE: This CE does not apply to the selection of the remedial action. *(32 CFR part 989, Appendix B, A2.3.26)*

- **General Services Administration –** Site characterization studies and environmental monitoring, including siting, construction, operation, and dismantling or closing of characterization and monitoring device.

  a) Drilling of wells for sampling or monitoring of groundwater, well logging, and installation of water-level recording devices in wells.
  b) Installation and operation of field instruments, such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tool.
  c) Sampling and characterization of water effluents, air emissions, or solid waste streams.
  d) Sampling and characterization of water, soil rock, or contaminants. (*GSA NEPA Desk Guide, 5.3(h)*)

- **Department of Energy** – Site characterization and environmental monitoring, (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to:

  a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, including and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing;
  b) Installation and operation of field instruments, such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools;
  c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells;
  d) Aquifer and underground reservoir response testing;
  e) Installation and operation of ambient air monitoring equipment;

f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes);
g) Sampling and characterization of water effluents, air emissions, or solid waste streams;
h) Installation and operation of meteorological towers and associated activities, (such as assessment of potential wind energy resources);
i) Sampling of flora or fauna; and
j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

- **U.S. Coast Guard** – Special Studies a. Environmental site characterization studies and environmental monitoring including: siting, constructing, operating, and dismantling or closing of characterization and monitoring devices.

  a) Conducting geological, geophysical, geochemical, and engineering surveys and mapping, including the establishment of survey marks.
  b) Installing and operating field instruments, such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools.
  c) Drilling wells for sampling or monitoring of groundwater, well logging, and installation of water-level recording devices in wells.
  (*COMDTINST M16475.1D, Figure 2-1).*

- **Bureau of Land Management** – Conducting preliminary hazardous materials assessments and site investigations, site characterization studies and environmental monitoring. Included are siting, construction, installation and/or operation of small monitoring devices such as wells, particulate dust counters and automatic air or water samples. *(BLM NEPA Handbook, H1790-1, Appendix 4)*

Comparability of CATEX

The FAA's proposed CATEX is anticipated to apply to all aspects of performance of a release investigation, site characterization, or RI from mobilization of equipment to obtain the samples through any necessary site restoration. A cursory analysis of the activities included in other Federal agencies' CATEXs is included in Exhibit I-1. Additionally, to the extent possible, the FAA has evaluated the CATEX above against the following five criteria:

1. Characteristics of the actions
2. Methods of implementing the actions
3. Frequency of actions
4. Applicable standard operating procedures or implementing guidance
5. Timing and context, including the environmental setting in which the actions take place

Characteristics of the Actions

Exhibit I-1 identifies activities covered by the CATEXs issued by the U.S. Army, U.S. Air Force, General Services Administration (GSA), Department of Energy (DOE), the USCG and the Bureau of Land Management (BLM). Each of these CATEXs include all necessary activities

for the collection of environmental samples and performance of analytical testing to verify the presence or absence of hazardous materials, hazardous substances or hazardous wastes utilizing a variety of intrusive sample collection techniques. Based on professional experience and judgment, while each CATEX varies regarding the actions explicitly included, each could reasonably be anticipated to cover all studies, sampling and analysis necessary to support decisions regarding the need for remedial action and to identify remedial actions appropriate for the specific location. The proposed FAA CATEX differs slightly in that it explicitly includes minor excavation as an intrusive sampling method. The proposed FAA CATEX also differs from CATEXs issued by the other agencies through inclusion of requirements for landscaping or site restoration.

Methods of Implementing the Actions

As indicated above the administrative records covering establishment of the various Federal agencies CATEXs were absent or otherwise not available with the exception of the USCG. However, based on professional knowledge and experience, these actions are typically conducted via contracts for Architectural/Engineering (A/E) services. Within DoD, the Air Force Center for Environmental Excellence (AFCEE), USACE, and other entities issue and manage contracts for the performance of environmental investigation and remediation, and are responsible for coordination and negotiation with Federal, state, tribal or local regulatory agencies. Contractors may support coordination and negotiation efforts preparing work-plans, SAP, permit applications or proposing mitigation strategies. FAA similarly utilizes various contractors to perform necessary environmental investigation or remediation activities, and similarly FAA staff potentially using contractor support, will coordinate and negotiate permits and required approvals with federal, state, tribal or local governments.

Frequency of Actions

Each of the Federal agencies identified in Exhibit I-1 has its own schedule for performing environmental investigations or studies based on its respective inventory of locations or areas of concern requiring investigation or study, and timeframes included in applicable Federal, state, tribal or local regulations governing those specific locations or areas or concern. Each agency, including the FAA, has an active environmental program and will generally perform one or more environmental investigations annually, based on the availability of funding. Additionally, some investigations may span or are on-going over multiple years to collect information necessary to determine an acceptable remedial alternative.

Applicable Standard Operating Procedures or Implementing Guidance

Environmental studies or investigations included in the various Federal agencies' CATEXs, and within the FAA's proposed CATEX, are governed by regulations and guidance issued by the EPA, individual state regulations and guidance, and industry accepted practices such as those issued by the American Society for Testing and Materials (ASTM), and the American National Standards Institute. Many of the professional standards are adopted by reference within Federal, state and local regulations. Additionally, the USACE and AFCEE have published guidance for use conducting environmental investigations within their particular service. Professional experience working for the DoD supporting environmental investigations indicates that work-plans and SAP will be developed to meet service specific guidance, applicable Federal and state regulations, and will be submitted for review and, if required, approval by the appropriate and relevant agencies prior to initiation of work.

The majority of FAA's areas of concern requiring environmental investigation are governed by and will conform to their respective state environmental regulations. As applicable, Federal, tribal, and local regulations will be addressed by work-plans and SAP, which will be submitted for review and, if required, approval by the appropriate and relevant regulatory agencies prior to commencement of work.

Timing and Context, Including the Environmental Setting in Which the Actions Take Place

Activities included in FAA's proposed CATEX will occur with similar timing and in a similar environmental context to those actions being performed by the Federal agencies listed in Exhibit I-1 and covered by those agencies' CATEXs. The FAA currently has 123 locations geographically dispersed across the nation at which these activities will occur, as funding and appropriations allow, over the next 30 years. The environmental settings for FAA's activities range from urbanized major airports to remote mountain peaks. The various Federal agencies identified in Exhibit I-1 have in excess of 5,000 known geographically dispersed locations or areas of concern at which they may conduct some level of environmental investigation. Based on publically available published schedules, such as the annual Defense Environmental Restoration Program (DERP) Report, these activities will continue through approximately 2075, based on availability of funding. Further, like FAA, these locations range from urbanized areas, like the main cantonment for a military base, to remote abandoned mining locations. Overall, the timing, context and setting of activities included within FAA's proposed CATEX are very similar in nature to those addressed by the other Federal agencies.

Proposed New Categorical Exclusion ATO-ECU #2: Remediation of Hazardous Wastes or Hazardous Substances

Proposed Text:

> *5-6.4ff. Remediation of hazardous wastes or hazardous substances impacting approximately one acre or less in aggregate surface area, including siting, site preparation, construction, equipment repair or replacement, operation and maintenance, monitoring, and removal of remediation-related equipment and facilities, on previously developed FAA-owned, leased, or operated sites. Remedial or corrective actions must be performed in accordance with an approved work plan (i.e., remedial action plan, corrective action plan, or similar document) that documents applicable current industry best practices and addresses, as applicable, permitting requirements, surface restoration, well and soil boring decommissioning, and the minimization, collection, storage, handling, transportation, and disposal of Federal or state regulated wastes. The work plan must be coordinated with, and if required, approved by, the appropriate governmental agency or agencies prior to the commencement of work. Examples of covered activities include:*
>
> - *Minor excavation for removal of contaminated soil or containers (drums, boxes, or other articles); and*
> - *Installation, operation and maintenance, and removal of in-situ remediation systems and appurtenances, including groundwater wells for treatment and monitoring of soil and water contamination. (ATO)*

This CATEX is expected to fall under the CATEXs for Facility Siting, Construction and Maintenance category heading of FAA Order 1050.1F. Under that Order, this proposed CATEX would require a review of extraordinary circumstances.

Environmental Review of the Proposed CATEX

The language and activities included in the proposed CATEX were developed based on activities whose environmental effects are typically not significant. The activities included in the CATEXs are required for conducting in-situ environmental remediation, with limited removal actions, of hazardous substances, hazardous wastes, or other regulated substances in accordance with industry best management practices and a Remedial Action Plan (RAP) or Remedial Design (RD) document approved by the appropriate or relevant governmental agencies. In considering whether the activities covered by the proposed CATEX could be categorically excluded under the criterion in 40 CFR § 1508.4, the FAA used the following sources of information: NEPA analyses contained in EAs prepared for previously-conducted FAA actions that included similar activities and which received FONSIs; (2) professional judgment and expert opinion regarding the environmental effects of activities normally conducted during environmental remediation for FAA and other organizations; and (3) comparison with CATEXs established by other agencies.

The EAs with FONSIs reviewed were all for FAA-led actions where the project and associated activities were conducted by either FAA personnel, FAA-funded contractors or a mixture of both. The activities included in each EA were evaluated, as well as the discussion of extraordinary circumstances encountered, mitigation activities required and the process utilized by FAA as part of each EA to confirm the lack of environmental impact. Activities included

within the proposed CATEX were reflected, in whole or in part, within the scope of the EAs reviewed and were all conducted on previously developed or semi-developed properties owned, leased or operated by the FAA, minimizing potential impact to natural resources.

The EAs differed in a number of significant areas from the proposed CATEX. Primarily, the ECU Program does not conduct demolition or disposal of facilities or infrastructure excess to the FAA's requirements and therefore will not impact facilities eligible for or listed on the NRHP. Also, only one of the EAs specified the size of the impacted area, 56 acres, the area impacted in the other EA was basically undefined. Finally, the previously-implemented actions involved coordination with appropriate Federal or state agencies to ensure and confirm lack of environmental impact from the proposed activities.

The EAs include remediation of LBP contaminated soils and soil contaminated due to leaking fuel storage tanks. In general LBP contaminated soils are remediated via excavation, typically requiring removal of the top 1 to 2 feet of soil in the vicinity of the structure containing LBP. Some of the fuel contamination referenced in the EAs was removed through excavation of the contaminated soils, and some in-situ remediation systems were installed. The EAs did not specifically indicate whether approval by the appropriate Federal or state agency for the proposed remedial activities was received prior to the FONSI. The proposed CATEX by its terms is limited to activities that are performed in accordance with applicable governmental requirements.

Administrative records for CATEXs issued by other Federal agencies covering activities similar to those included in the proposed CATEX were not available for review. Therefore, activities specifically outlined in the agencies' CATEXs were evaluated for similarities and differences to this proposed CATEX. Most of the CATEXs reviewed are broadly written and could be construed to contain activities not explicitly stated. A more strict comparison was used, and is included in Exhibit I-2, below. This comparison indicates the proposed CATEX differs from CATEXs issued for similar activities in four areas: (1) landscaping or site restoration; (2) minor excavation; (3) removal of contaminated soil or containers (e.g., drums, boxes); and (4) conformance to or use of industry best practices.

Landscaping or site restoration minimizes potential impacts associated with loss of habitat through revegetation with native species. Minor excavation may be included with "intrusive sampling", but was not specifically identified and again, without administrative records, its inclusion or exclusion in other agencies' CATEXs cannot be confirmed. Similarly, agency practices regarding removal of contaminated soil or containers cannot be confirmed and as indicated above are typically included for appropriate Federal or state regulator review and, if required, approval in the project's RAP or RD; therefore, these activities are anticipated to have minimal overall impact. Finally, use of industry best practices ensures that investigative activities obtain information required to make remedial decisions, minimizes risks of rework and additional sampling, and thereby minimizes overall environmental impacts.

In conjunction with the professional judgment and expert opinion, and based on the EAs analyzed and the comparison to CATEX outlined in Exhibit I-2, the activities covered by the proposed CATEX appear to be the same or even less impactful than those performed previously by FAA or currently being categorically excluded by other Federal agencies.

Based on the foregoing information and analysis, the FAA finds that under normal circumstances the activities covered by the proposed CATEX do not individually or cumulatively have a

significant effect on the human environment. The analysis of extraordinary circumstances required by the FAA's NEPA-implementation procedures would ensure that the CATEX would not be applied to actions that could have such effects.

Previously Implemented Actions

Attachment 2 provides a summary and analysis of seven EAs developed for FAA actions, which received FONSIs for activities included in the proposed CATEX. The activities included in the EAs relevant to the proposed CATEX are as follows:

- Landscaping and Site Restoration
- Site preparation and construction
- Demolition or disposal of facilities
- Installation and removal of groundwater wells
- Trenching and excavation
- Proper disposal of excavated contaminated soil, construction debris, and solid waste

Landscaping as included in the cited EAs involved filling excavations and other areas, if necessary, grading of the ground surface and laying sod or seeding the area with either native species or plants approved by the appropriate governmental agencies. As areas encompassed by these EAs were either previously developed or semi-developed, natural resource impacts were not anticipated or deemed not significant. The USFWS, USACE and appropriate and relevant state agencies were consulted during the project planning process to confirm endangered and threatened species, critical habitat, wetlands, coastal zone management plans, coastal barriers, scenic and wild rivers, local energy requirements, prime farmlands, and properties protected under Section 4(f) of the DOT Act (49 U.S.C. 303(c)) were not impacted by any of these projects. As a precautionary mitigation, buffer zones were defined to ensure that Bald Eagles potentially nesting in the vicinity of projects sites were not adversely impacted. As described in the single EA encompassing activities that would impact a wetland area, USACE was consulted and appropriate permits and mitigation were conducted to minimize impacts. A sediment and erosion control and storm water pollution prevention plan, including NPDES permit, was developed to maintain water quality for one of the seven projects evaluated. As part of the analysis of extraordinary circumstances required under the FAA's NEPA-implementing procedures before the CATEX could be applied, appropriate Federal or state agencies would be consulted and/or publically available resources reviewed to determine whether coastal zones, coastal barriers, scenic and wild rivers, prime farmlands, or Section 4(f) properties could be significantly affected. Applicable requirements for sediment and erosion control and storm water pollution prevention would be coordinated with appropriate Federal, state, and local agencies, and appropriate permits obtained or mitigation activities identified on a site-specific basis.

The proposed CATEX is limited to remedial actions conducted on property previously developed by the FAA or other parties, thus minimizing the potential for the presence of un-cataloged endangered or threatened flora or fauna, critical habitat, or wetland areas. As part of the analysis of extraordinary circumstances required under the FAA's NEPA-implementing procedures before the CATEX could be applied, the appropriate governmental agencies would be consulted

to confirm whether these natural resources are present and, if so, whether they could be significantly affected.

Site restoration activities conducted as part of a remedial action are similar in nature to the landscaping included in the cited EAs, though typically focused on restoring the areas directly impacted during installation or removal of groundwater sparging, extraction, testing, or monitoring wells or excavation and removal of drums, containers, or contaminated soils. In accordance with industry best practices, if reseeding or re-vegetation is necessary, the appropriate state or local natural resource office would be consulted regarding the strategy for landscaping and the plant species to be used.

Most remedial actions conducted by the FAA ECU Program are associated with releases to the environment by FSTs or storage tanks used for other hazardous materials or hazardous wastes that have occurred on developed, previously developed or leased "pads," gravel-filled or significantly landscaped areas on which FAA facilities are placed or constructed. Pads range from ½ acre to multiple acres depending on the type and number of FAA facilities deployed at the site. Historic environmental investigations, documented in site-specific environmental contamination characterization reports and remedial action reports, indicate that the surface impacts of limited removal actions or installation and removal of in-situ remediation systems are generally less than 1 acre in aggregate surface size. Additionally, many remote FAA facilities may have sensitive habitats, endangered plant or animal species, or potentially wetlands surrounding the already developed pad. Therefore, the ECU Program is limiting the proposed CATEX for environmental investigation to "previously developed" property (i.e., on the pad) and to areas less than one acre in aggregate area to avoid potential impacts to environmental resources outside the already developed area.

Three of the EAs with FONSIs referenced cite development and construction of new housing and supporting infrastructure. Similar activities covered by the proposed CATEX are siting, site preparation, and construction of environmental remediation-related equipment and facilities. Remedial action construction (RAC) activities may include the siting of the facility, construction of soil, sediment and/or groundwater remediation systems that function as containment (e.g., soil cover, capping, groundwater pump and treat systems); in-situ treatment systems (e.g., monitored natural attenuation, soil vapor extraction, enhanced bio-remediation, air sparging and other technologies) or ex-situ treatment (e.g., air stripping, stabilization, solidification). Except for projects at FAA's William J. Hughes Technical Center (the only Superfund site within the ECU Program), typical RAC projects consist of groundwater pump and treat systems, long-term groundwater monitoring, or monitored natural attenuation. Facilities housing blowers, vacuum units, vapor capture or oxidation units and other components associated with in-situ remediation systems are typically pre-fabricated temporary structures without a foundation (i.e., not affixed to the property).

Approximately half the EAs with FONSIs cited (four of seven) included demolition, disposal, or removal of existing facilities and infrastructure, and cited cultural resource concerns associated with demolition of structures eligible for listing on the NRHP and the potential for finding previously unidentified archeological resources during excavation, drilling, or other soil disturbance activities. In all cases, the SHPO was consulted during the project planning process and mitigation activities were included as part of the project activities to avoid significant impacts to cultural resources. The ECU Program does not demolish or dispose of facilities and

associated infrastructure, and does not anticipate such actions being covered by the proposed CATEX. Facilities typically established to house an in-situ remediation system include trailers, shipping containers or other pre-fabricated structures placed on or near the site undergoing remediation. Generally these structures are not affixed to the property (i.e., they do not have a foundation or slab), and can be removed from the site with little to no impact.

Groundwater well installation, for use as a potable water source, was conducted as part of many of FAA's previous actions addressed by the cited EAs. The proposed CATEX does not include installation of potable drinking water wells, but groundwater monitoring and treatment wells installed as part of an environmental remediation effort use the same or similar well construction methods. Additionally, unlike drinking water wells which are installed for the length of ownership or use of a property, groundwater monitoring and treatment wells are removed upon completion of the remedial action, and are therefore less permanent in nature than the potable water wells referenced in the EAs. RAPs typically developed for environmental remediation address proposed groundwater monitoring or treatment well installation methods, locations, sampling regime (if applicable), pumping rate (if applicable), contaminated water treatment and disposal (if applicable), and well decommissioning methods, and are submitted for review and, if required, approval by the appropriate or relevant governmental agency or agencies.

Trenching and excavation was included in the activities addressed by the EAs and covered activities ranging from the removal of soils contaminated with hazardous substance or hazardous wastes, to excavation of foundations for housing and installation of water lines, sewer and other utilities. These activities typically occur on previously developed areas to minimize potential for impact to natural resources, endangered species or critical habitat, as well as cultural resources. However, soil disturbance activities such as soil boring, groundwater well installation and excavation pose the highest probability for discovery of previously unknown archeological artifacts, human or native remains or other cultural resources. As reflected in the referenced EAs and FONSIs, FAA contracts for remedial actions include requirements for soil disturbance to cease and desist on discovery of human or native remains or other cultural resources archeological artifacts. As part of the analysis of extraordinary circumstances required under the FAA's NEPA-implementing procedures before the CATEX could be applied, the SHPO and other appropriate Federal and state agencies would be consulted to identify known or potential cultural resources at the site and determine whether they may be significantly affected.

The EAs with FONSIs do not directly discuss methods used to dispose of hazardous substance- or hazardous waste-contaminated soils, or for disposal of debris, containers, storage tanks or other items demolished or remediated during the project. Remediation projects, whether performed in situ or resulting from excavation and removal, are conducted based on RAPs or Remedial Designs (RDs) that are approved, as required, by the appropriate governmental agency or agencies. RAPs and RDs include detailed discussion, as appropriate and applicable to the remedial action at the site, regarding containerization, transportation and disposal of all wastes and debris generated as part of the project. Transportation of any hazardous substance or hazardous waste is regulated by requirements of the Department of Transportation (DOT) and the EPA. Disposal of hazardous substances, hazardous wastes, and other debris is regulated by requirements of the Clean Air Act (CAA), RCRA and Solid Waste Disposal Act (SWDA) as implemented by EPA, and applicable state and local regulation. The proposed CATEX is limited by its terms to actions that comply with all applicable governmental requirements.

The EAs referenced for previously implemented actions were chosen because they contain activities similar in nature to those included in the proposed CATEX. Though the EAs listed were all developed for FAA actions conducted in the State of Alaska, this fact should not affect the soundness of the analysis. Each EA was developed in accordance with a mixed regulatory framework of applicable Federal and state environmental regulations, and a similar mixed framework will apply regardless of which state an action requiring NEPA evaluation is conducted in. Additionally, each EA referenced was conducted at an FAA-leased, -owned or -operated property currently undergoing environmental investigation or remediation under the FAA ECU Program. Because 85 percent of the ECU Program's current AOCs are located in Alaska, and only 17% are in the contiguous United States (7.91% in Eastern, 4.1% in Central and 5.1% in Western) these EA are considered representative of potential environmental issues and associated permitting and mitigation requirements which are encountered during FAA environmental remediation actions. Finally, Alaska, with its extensive national and state parks, vast wetlands, extensive coastline and reliance on a natural resource-centered tourist industry, has a more conservative and rigid regulatory framework than most states. The existing FAA CATEX 310u, covering remediation of contamination resulting from FST, confirms the presumption that these activities do not pose a significant environmental impact.

Impact Demonstration Projects

Due to the on-going nature of the FAA's ECU Program, demonstration projects will not be conducted. Information regarding environmental impacts will be collected during conduct of normal environmental investigation and remediation projects to validate the proposed CATEX or identify necessary modifications.

Professional Judgment and Expert Opinion

It is the professional opinion and judgment of the following environmental experts, including employees of the FAA, that the actions covered by the proposed CATEX do not individually or cumulatively have significant environmental impacts under normal circumstances. Their opinion is based on expert knowledge and experience in the field of environmental cleanup, remediation, and restoration.

- **Consensus Professional Opinion:** This CATEX addresses the construction, repair (including equipment replacement), operation and maintenance of new and existing equipment or infrastructure which the FAA uses to remediate contaminated soil and groundwater. Construction activities include, but are not limited to, facility siting, site preparation, construction or installation of temporary structures without permanent foundations to house and protect equipment to filter or treat soils and groundwater, as well as air and vapor that may be extracted as a result of the remediation. Construction also may include excavation to remove contamination soil, remove drums or containers, or the source of contamination. Removal of infrastructure or equipment supporting remediation may involve disconnecting power, removal of temporary facilities, decommissioning of groundwater wells and associated piping. The proposed CATEX by its terms is limited to activities conducted in accordance with industry best practices and applicable governmental requirements. Repair of equipment can be necessary to maximize efficient operation or ensure that equipment attains the operational service life necessary to complete remediation. Equipment includes existing and new long-term monitoring systems and remediation systems, which require operational activities and

maintenance. These activities are conducted at locations with existing infrastructure on previously disturbed lands. Activities conducted in support of the operation and maintenance of long-term monitoring and remediation systems are similar in nature, scope, and intensity to activities already categorically excluded by FAA, such as activities associated with repairing and maintaining existing utility infrastructure (see FAA Order 1050.1E, paragraph 310w). These operation and maintenance activities do not individually or cumulatively have a significant impact on the environment.

Professionals Credentials

Name	Affiliation	Education	Training/Certificates	Years of Related Experience
Michael G. Waltermire	FAA	BS, Civil Engineering	PE	30
Daisy Mather	FAA	BS, Environmental Science MS, Earth Sciences		17
Alison Hulbert	FAA	BS, Natural Resources and Environmental Sciences MS, Environmental Policy	REP, USACE Wetland Delineator, PMP	18
Sam Swearingen	Booz Allen Hamilton	BS, Environmental Health Science; MBA	QEP, CHMM LEED-AP, PMP	21
Kurt Janisch	Booz Allen Hamilton	BS CE; MS Water Resource Engineering	Professional Engineer (Civil) - State of Colorado (#29104)	21
Jeff Furr	Booz Allen Hamilton	BA Earth Sciences; MS Environmental Science & Engineering	PMP	14

Benchmarking Analysis

The FAA's ECU program reviewed and evaluated other agencies' existing CATEXs for actions similar to those that would be covered by the proposed CATEX discussed above. Many Federal agencies have highly developed environmental cleanup programs to address environmental liabilities at government sites and facilities. Exhibit I-2 provides a summary comparison of activities included in other agencies' CATEXs for environmental remediation versus those covered by the proposed FAA CATEX.

Exhibit I-2. Comparison of Proposed CATEX Activities to Other Agency CATEXs

Proposed FAA CATEX	DOE #1	DOE #2
Siting and site preparation,	X	
Construction, repair (including equipment replacement), operation and maintenance, monitoring, and removal of remediation-related equipment and facilities	X	X
Remediation of hazardous waste or hazardous substance contamination	X	X
Minor Excavation		
Removal of contaminated soil or containers (e.g., drums, boxes)		

Proposed FAA CATEX	**DOE #1**	**DOE #2**
Installation and removal of in-situ remediation systems and appurtenances	X	X
Industry best practices		
Applicable Federal, state or local requirements	X	X
Landscaping or Site Restoration	X	
Collection, storage, and disposal of contaminated and non-contaminated spoils		X

The other agencies' CATEXs are described below:

- **Department of Energy #1** The siting, construction, and operation of temporary (generally less than 2 years) pilot-scale waste collection and treatment facilities, and pilot-scale (generally less than 1 acre) waste stabilization and containment facilities (including siting, construction, and operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis), provided that the action: (1) supports remedial investigations/feasibility studies under CERCLA, or similar studies under RCRA, (such as RCRA facility investigations/corrective measure studies) or other authorities, and (2) would not unduly limit the choice of reasonable remedial alternatives (such as by permanently altering substantial site area or by committing large amounts of funds relative to the scope of the remedial alternatives). (*10 CFR Part 1021, Subpart D, Appendix B, B6.2*)
- **Department of Energy #2** – Improvements to environmental monitoring and control systems of an existing building or structure (such as changes to scrubbers in air quality control systems or ion-exchange devices and other filtration processes in water treatment systems), provided that during subsequent operations (1) any substance collected by the environmental control systems would be recycled, released, or disposed of within existing permitted facilities and (2) there are applicable statutory or regulatory requirements or permit conditions for disposal, release, or recycling of any hazardous substance or CERCLA-excluded petroleum or natural gas products that are collected or released in increased quantity or that were not previously collected or released. (*10 CFR Part 1021, Subpart D, Appendix B, B6.3*)

Comparability of CATEX

The FAA's proposed CATEX is anticipated to apply to all aspects of a corrective or remedial action including mobilization, installation, facility construction, facility or component maintenance and replacement, facility or equipment removal and any necessary site restoration. A cursory analysis of the activities included in other Federal agencies CATEX for similar actions is included in Exhibit 2. Additionally, to the extent possible, the FAA has evaluated the CATEX above against the following five criteria:

1. Characteristics of the actions
2. Methods of implementing the actions
3. Frequency of actions
4. Applicable standard operating procedures or implementing guidance

5. Timing and context, including the environmental setting in which the actions take place

Characteristics of the Actions

Exhibit I-2 identifies activities covered by the CATEX issued by the DOE, which both include many of the activities necessary the remediation of hazardous material, hazardous waste or hazardous substance contamination or for monitoring systems conducting such remediation. The proposed FAA CATEX differs slightly from both DOE CATEXs, including minor excavation, use of industry best practices, landscaping and site restoration, and collection, storage and disposal of hazardous materials or waste.

Methods of Implementing the Actions

As indicated above, the administrative records covering establishment of the various Federal agency CATEXs were absent or otherwise not available. However, based on professional knowledge and experience, these actions are typically conducted via contracts for A/E services. DOE has previously issued numerous long-term indefinite delivery indefinite quantity (IDIQ) task order contracts for the performance of environmental remediation projects, maintaining responsibility for coordination and negotiation acceptable cleanup standards with Federal, state, tribal or local regulatory agencies. Contractors may support coordination and negotiation efforts preparing work-plans, permit applications or proposing mitigation strategies. The FAA similarly utilizes various contractors to perform necessary environmental or remediation activities, and similarly FAA staff potentially using contractor support, will coordinate and negotiate permits and required approvals with Federal, state, tribal or local governments.

Frequency of Actions

The DOE has one of the largest environmental liabilities, if not the largest, of any Federal agency for investigation and remediation of hazardous or radioactive wastes resulting from past practices at its facilities. At the current time, DOE has numerous on-going remedial actions being performed at facilities such as Savannah River, Oakridge National Laboratories, Idaho National Energy Laboratories and other locations. The FAA also has multiple on-going remedial actions at facilities geographically dispersed across the country, as well as initiating new remedial actions as funding and data to support identification of the appropriate remedial alternative becomes available.

Applicable Standard Operating Procedures or Implementing Guidance

Environmental remediation, remedial actions, or corrective actions are governed by regulations and guidance issued by the EPA, individual state regulations and guidance, and industry accepted practices such as those issued by the ASTM. Many of the professional standards are adopted by reference within Federal, state and local regulations. Additionally, DOE has published guidance for use conducting environmental remediation. Professional experience conducting environmental remediation indicates that work-plans and RAP will be developed to meet applicable Federal, state or local regulations, and will be submitted for review and, if required, approval by the appropriate and relevant agencies prior to initiation of work. Unlike the FAA, many of DOE's remediation sites are governed under the CERCLA Superfund Program, which requires agency and, as required, stakeholder approval prior to initiation of a remedial action.

Most of the FAA's areas of concern requiring environmental remediation are governed by and will conform to their respective state environmental regulations. As applicable, Federal, tribal, and local regulations will be addressed by work-plans and RAPs, which will be submitted for review and, if required, approval by the appropriate and relevant regulatory agencies prior to commencement of work.

Timing and Context, Including the Environmental Setting in Which the Actions Take Place

FAA currently has 123 locations geographically dispersed across the nation at which these activities will occur, as funding and appropriations allow, over the next 30 years. The environmental settings for the FAA's activities range from urbanized major airports to remote mountain peaks. The majority of DOE's environmental remediation activities will occur on highly secured semi-industrialized facilities constructed during or since World War II. The FAA's facilities are typically more dispersed, and not as secure from the public. However, sites planned for remediation by both organizations span similar environment settings. Overall, the timing, context and setting of activities included within FAA's proposed CATEX are very similar in nature to those addressed by the DOE.

ATO-ECU Attachment 1

Curriculum Vitae

Mr. Mike Waltermire

Mr. Waltermire is the national program manager of the Federal Aviation Administration's (FAA's) Environmental Cleanup (ECU) Program, with more than 30 years of relevant professional and program/project management experience in the field of environmental investigations. Mr. Waltermire has a Bachelor of Science degree in Civil Engineering, and is a registered professional engineer. Mr. Waltermire is responsible for the evaluation, design and implementation of remedies to operational issues. Duties include: project and program conceptualization; project and program funding management; technical/cost proposal development; scheduling; client representation in regulatory agency negotiations; work plan development; bid specifications production; contractor/consultant selection; data collection and synthesis; implementation of evaluations and remedial actions; technical report production; training course development and presentation; various small and large group technical briefings; as well as resource applications to accomplish these activities.

Ms. Daisy Mather

Ms. Mather is an Environmental Protection Specialist with the FAA Air Traffic Organization (ATO) with 17 years of relevant professional and project experience in environmental programs at Federal agencies. Ms. Mather holds a Bachelor of Science in Environmental Science and Master of Science in Earth Science. Ms. Mather currently manages the Environmental Due Diligence Audit (EDDA) program and supports the Environmental Occupational Safety and Health (EOSH) program for the ATO. Prior experience includes managing the National Environmental Policy Act (NEPA) environmental impact assessment and noise programs for FAA Airports Division in Eastern Region, and serving as a Clean Air Act Amendments Section 309 NEPA reviewer with the US Environmental Protection Agency Region II. Ms. Mather possesses detailed knowledge of environmental regulations, including NEPA, the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), the National Historic Preservation Act (NHPA), the Endangered Species Act (ESA) and the Coastal Zone Management Act (CZMA).

Ms. Mather has written and reviewed hundreds of environmental impact analysis documents prepared pursuant to NEPA. She wrote the CATEX and short environmental assessment forms for FAA Eastern Region Airports Division that are now used nationally within FAA. In her current capacity, Ms. Mather determines appropriate application of CATEXs in the EOSH Environmental Cleanup Program.

Ms. Allison R. Hulbert

Allison Hulbert is the environmental technical lead for the FAA's Eastern Service Area (ESA). She has 18 years of relevant experience studying and working in the environmental science and policy field. Ms. Hulbert has a Bachelor of Science in Natural Resources and Environmental Science from Purdue University and a Master of Science in Environmental Policy from The Johns Hopkins University. Ms. Hulbert's experience includes international studies in Hungary, England, and Scotland to research environmental policy and management practices. As a result,

she has published several essays in academic manuscripts. She has been a guest lecturer for Purdue University Environmental Science classes. Her experience also includes working for U.S. Senator Dan Coats conducting environmental policy research and preparing constituent correspondence. For five years, Ms. Hulbert worked as a NEPA Analyst and prepared NEPA documentation for the U.S. Department of Transportation's Federal Highway Administration. Ms. Hulbert holds the following certifications: Registered Environmental Professional (REP), U.S. Department of Transportation, Federal Highway Administration Environmental Consultant, U.S. Army Corps of Engineers Wetland Delineator, and Project Management Professional (PMP).

Ms. Hulbert has prepared numerous NEPA documents including the largest bi-state Environmental Impact Statement (EIS) ever completed by the States of Indiana and Kentucky. The Ohio River Bridges EIS took over 5 years to complete and cost $22 million. Ms. Hulbert has experience delineating wetlands, completing endangered species surveys, consulting under Section 106 of the NHPA and Section 7 of the ESA, leading public information meetings, designing habitat restoration and wetland mitigation sites, coordinating with regulatory officials, conducting air quality and noise studies, securing Section 404 and 401 Clean Water Act permits, and managing environmental cleanup sites.

Currently Ms. Hulbert manages the implementation the FAA's Environmental Compliance, Environmental Cleanup, Fuel Storage Tank, and Energy Conservation and Management Programs. In her current role, Ms. Hulbert is the Eastern Service Area (ESA) subject matter expert for resolving and/or preventing compliance related violations, for reviewing and approving the NEPA documentation prepared on behalf of ESA, and for reducing the environmental risk of the agency by managing its cleanup sites.

Mr. Jeffrey Furr

Mr. Furr is an Associate on the Booz Allen Hamilton Global Civil Team. Mr. Furr is an environmental professional with 14 years of relevant experience providing technical and program management support to environmental and safety programs of Federal agencies. Mr. Furr holds a Bachelor of Arts in Earth Sciences and a Masters of Science in Environmental Sciences and Engineering. Mr. Furr currently supports the Air Traffic Organization's - Technical Operations, Environmental Compliance Manager at FAA Headquarters. Mr. Furr possesses detailed knowledge of environmental regulations, such as the RCRA, Oil Pollution Act (OPA) regulations, underground storage tank regulations, CERCLA, NEPA, the Emergency Planning and Community Right-to-Know Act (EPCRA), the Clean Air Act Section 112(r) (Risk Management Plan regulations), and the U.S. Department of Transportation Hazardous Materials Regulations.

Mr. Furr supports the FAA Headquarters ATO's - Technical Operations, Environmental Compliance Manager with support across all of the program areas, including air pollution control, water pollution control, drinking water management, hazardous materials and waste management, Polychlorinated Biphenyls (PCB) management, and pollution prevention. In this role, Mr. Furr provides technical guidance and regulatory research support for issues related to operation of the NAS. For example, he developed the draft FAA ATO Order JO 3900.57A, Environmental and Occupational Safety and Health (EOSH) Requirements in the Planning and Execution of Construction and Maintenance Activities at National Airspace System (NAS) Facilities, to manage and incorporate environmental and occupational safety and health

requirements during planning, design, construction, maintenance and decommissioning activities. He also supported AEE in the development of FAA Order 1050.19B, Environmental Due Diligence Audits in the Conduct of FAA Real Property Transactions, including resolving and incorporating 181 comments into the final order. Mr. Furr has conducted numerous EDDAs, in compliance with ASTM standards, Environmental Protection Agency (EPA) All Appropriate Inquiry requirements and FAA Orders on behalf of FAA Headquarters, including EDDA for closure and transfer of the Automated Flight Service Stations (AFSS) and closing NAS facilities managed under the Facility Disposition Program. Mr. Furr developed the report template for the AFSS EDDAs and provided quality assurance for the draft and final reports. Mr. Furr has provided training on EDDAs for the Advanced Real Estate course and the Real Estate Conference attended by FAA Real Estate Contracting Officers. For the U.S. EPA, Mr. Furr manages and conducts EDDAs for Federal facilities, including research laboratories.

Mr. Kurt Janisch

Mr. Kurt Janisch is an Associate with Booz Allen Hamilton, with more than 21 years of relevant professional and program/project management experience in the fields of environmental related consulting. Mr. Janisch has a Bachelor of Science degree in Civil Engineering, a Master of Science degree in Water Resource Engineer and is a registered professional civil engineer in the State of Colorado. Mr. Janisch's current experience is as an environmental professional providing technical support for the Fuel Storage Tank, Decommissioning and Environmental Cleanup Programs for the Federal Aviation Administration. Prior experience includes managing an office for an engineering consulting firm, managing an environmental program for a consulting firm and providing program and project management services on a variety of environmental projects.

Mr. Janisch has extensive experience performing and managing investigation and remediation activities associated with petroleum hydrocarbon releases. Mr. Janisch participated in multiple projects for airport and airline clients at facilities throughout the United States. Site investigation technology utilized included soil sampling using hollow stem auger and direct push systems and the construction of ground water monitoring wells for groundwater sample collection. Remediation technologies included ex situ removal and disposal and in situ bio remediation, soil vapor extraction and pump and treat. The source of contamination included petroleum hydrocarbons stored in underground storage tanks, aboveground storage tanks, bulk storage tanks and distribution systems.

Mr. Samuel Swearingen

Mr. Samuel Swearingen is a Lead Associate with Booz Allen Hamilton with 21 years of relevant environmental investigation and remediation experience. Mr. Swearingen possess a Bachelor of Science in Environmental Health Sciences and a Masters in Business Administration. He is a Certified Hazardous Material Manager, Project Management Professional, Qualified Environmental Professional and a Leadership in Energy and Environmental Design Accredited Professional.

Mr. Swearingen has conducted over 2,000 investigations and similar number of remediation of contaminated soils and groundwater at EPA's National Priority List (Superfund List) and state and tribal regulated cleanup sites. Site investigation technology utilized included soil sampling using hollow stem auger and direct push systems and the construction of ground water monitoring wells for groundwater sample collection. Remediation technologies included ex situ

removal and disposal and in situ bio remediation, soil vapor extraction and pump and treat. Mr. Swearingen has developed documented CE and EA, conducting cross agency coordination, holding public meetings and obtaining public comment, and coordinating comment responses for environmental investigation and remediation activities. He has also coordinated biological assessments, wetland assessments and drafted Programmatic Agreements with the Advisory Council on Historic Preservation (ACHP), and managed implementation of appropriate mitigation actions. Also, he has chaired three (3) Restoration Advisory Boards (RABS) for Department of Defense (DoD) environmental cleanup sites, disseminating project information and directly collecting public feedback on environmental investigation and remediation activities.

ATO-ECU Attachment 2
Summary and Analysis of Seven FAA EAs

	King Salmon, AK Housing Project FONSI	**Bethel, Ak Housing Project FONSI**	**Biorka Island Environmental Remediation and Road Upgrade, Biorka Island, Ak**
Characteristics			
Size:	56 Acres	Acreage not provided	Acreage not provided
Duration:	Undefined	Undefined	Undefined
Scope	• Construction of new housing • Installation of utilities, wastewater laterals, mains and pump stations, installation of community water well • Landscaping • Installation of Street lights, recreation areas and storage areas • Install UST • Abatement of asbestos containing materials • Remediation of Lead Based Paint contaminated soils.	• Construction of 10 new housing units, eight townhouses and a community service facility. • Install underground fuel storage tanks. • Connect to local sewer and water utilities. • Establish on-site water treatment facility. • Sale of existing structures as excess property • Geotechnical testing of the site	• Building Demolition • Remediation of Lead Based Paint contaminated soils. • Removal of miscellaneous debris. • Upgrade/Grading of existing road • Includes obtaining state burn permit and burning wood debris on site. • Abatement of Asbestos Containing Materials.
Inclusive Activities	• Excavation for foundations and UST installation • Trenching for utility installation • Landscaping and surface restoration • Sediment and drainage control • Groundwater well installation • LBP soil sampling, excavation and disposal • Asbestos abatement and disposal • Solid waste – construction debris disposal	• Excavation for foundations and UST installation • Trenching for utility installation • Landscaping and surface restoration • Sediment and drainage control • Geotechnical testing for contamination, including petroleum and LBP in soil	• Excavation for foundations and UST installation • Trenching for utility installation • Landscaping and surface restoration • Sediment and drainage control • Groundwater well installation • LBP soil sampling, excavation and disposal • Asbestos abatement and disposal • Solid waste – construction debris disposal
Date	March 1995	June 1996	January 2001
Regulatory Analysis			
Noise	During Construction period, the noise levels would increase.	During Construction period, the noise levels would increase.	Not applicable, as the site is a remote field location staffed only by FAA employees required to maintain facilities or participate in the project.
Land Use	Site is currently semi-developed, within 1 mile of existing housing, used for recreation and off-roading. Dirt roads and trails are already present.	Site is currently semi-developed, FAA owned property and already within the existing housing compound.	Activities will occur on a previously developed portion of the island owned by FAA through public land withdrawal.

	King Salmon, AK Housing Project FONSI	**Bethel, Ak Housing Project FONSI**	**Biorka Island Environmental Remediation and Road Upgrade, Biorka Island, Ak**
Socio/Economic Impact	• Short Term job generation for construction labor. • No additional burden on schools. • Utilize existing community power and sewer utilities. • Installation of a new groundwater drinking water well.	• Short Term job generation for construction labor. • No additional burden on schools. • Sewer extension would provide development benefits to the community.	Short Term job generation for construction labor
Air Quality	Temporary (undefined) increase in dust levels.	Temporary (undefined) increase in dust levels.	Temporary (undefined) during burn of wood debris.
Water Quality	• King Salmon river would be temporarily (undefined) impacted by sediment and runoff. Nearby wetlands would filter runoff and flow through natural channels. • SWPPP and NPDES will be put in place.	Connecting to the Bethel sewer would reduce or eliminate a surface discharge of waste water, improving overall water conditions.	No applicable.
Biotic Communities	• Will cause loss of habitat. • Increased potential for human-bear/animal interaction.	As the new housing is being built on semi-developed land, it would have minimal impact to wildlife or habitat.	Minor habitat loss could result.
Threatened and Endangered Species	• Area has endangered species, bald eagles, peregrine falcons, migratory birds. • Project has no impact on T and E species.	As the new housing is being built on semi-developed land, it would have no anticipated impact to T and E species.	Bald Eagles are often resident on the island during the summer construction season, however, none are nesting within the view shed of the project or will be impacted by the project. A minimum buffer of 330 as requested by USFWS will be maintained.
Cultural Resources	• Old Housing is eligible for NHRP and being evaluated. • Other cultural and historical impacts are unknown, but work will stop if found or identified.	• Old Housing is eligible for NHRP and being evaluated. • Other cultural and historical impacts are unknown, but work will stop if found or identified.	Demolition of the CAA Air Navigation System (ANS) will be included in a PA with the ACHP. The site was not considered a good representation of an ANS, but will be documented for the National Archives.
Wetlands	Not present	A wetland permit shall be obtained for the work to be conducted along or in small wetlands that exists at the site.	None present within the project site.
CZMP	Project will be consistent with CZMP and will reviewed by the State of Alaska, Division of Governmental Coordination.	Project will be consistent with CZMP and will reviewed by the State of Alaska, Division of Governmental Coordination.	Project will be consistent with CZMP and will reviewed by the State of Alaska, Division of Governmental Coordination.
Floodplains	Project is not in the local floodplain.	Project is not in the local floodplain.	Project is not included in the local flood plain.
Coastal Barriers	Project will not impact coastal barriers.	Project will not impact coastal barriers.	Project will not impact coastal barriers.
Wild and Scenic River	Project will not impact rivers or streams on the National Inventory of Wild and Scenic Rivers.	Project will not impact rivers or streams on the National Inventory of Wild and Scenic Rivers.	Project will not impact rivers or streams on the National Inventory of Wild and Scenic Rivers.
Farmland	Prime or unique farmlands will not be impacted.	Prime or unique farmlands will not be impacted.	Prime or unique farmlands will not be impacted.

	King Salmon, AK Housing Project FONSI	**Bethel, Ak Housing Project FONSI**	**Biorka Island Environmental Remediation and Road Upgrade, Biorka Island, Ak**
Energy Supply and Natural Resources	Project will not increase the local energy use beyond that currently used by existing housing.	Project will not increase the local energy use beyond that currently used by existing housing.	FAA is the prime power generator at BKA. This project will not impact local energy generation requirements.
Solid Waste	Solid waste will be disposed of in the local landfill, which will not be impacted by the projected quantity.	Solid waste will be disposed of in the local landfill, which will not be impacted by the projected quantity.	Solid waste will be removed from the island, when the heavy equipment is barged from the island.
Construction Impacts	Temporary (undefined) noise and dust increases.	Temporary (undefined) noise and dust increases.	Temporary (undefined) noise and dust increases.
Hazardous Materials	• Friable asbestos will be abated from existing housing and disposed of in a hazardous material landfill. • LBP will be abated and disposed properly.	• Friable asbestos will be abated from existing housing and disposed of in a hazardous material landfill. • LBP will be abated and disposed properly. • Fuel handling will meet state requirements. Soils exceeding state cleanup levels will be removed and remediated in accordance with Federal and state hazardous material and waste management laws.	• Friable asbestos will be abated from existing housing and disposed of in a hazardous material landfill. • LBP will be abated and disposed properly.
Section 4(f) of DOT	There are no 4(f) properties in the project area.	There are no 4(f) properties in the project area.	There are no 4(f) properties in the project area.
Mitigation Activities			
Noise	None	None	None
Land Use	None	None	None
Socio/Economic Impact	None	None	None
Air Quality	None	None	None
Water Quality	Establishment of SWPPP and obtaining NPDES Permit as necessary.	None	None
Biotic Communities	None	None	None
Threatened and Endangered Species	None	None	A 330 foot boundary will be observed around any bald eagles nest.
Cultural Resources	Mitigation will be conducted in accordance with Section 106 and SHPO requirements, as applicable.	Mitigation will be conducted in accordance with Section 106 and SHPO requirements, as applicable.	Mitigation will be conducted in accordance with Section 106 and SHPO requirements, as applicable.
Wetlands	None	A wetlands permit will be obtained.	None
CZMP	Project will be reviewed by the state for consistency with CZMP, and will comply with applicable restrictions, if any.	Project will be reviewed by the state for consistency with CZMP, and will comply with applicable restrictions, if any.	Project will be reviewed by the state for consistency with CZMP, and will comply with applicable restrictions, if any.

	King Salmon, AK Housing Project FONSI	**Bethel, Ak Housing Project FONSI**	**Biorka Island Environmental Remediation and Road Upgrade, Biorka Island, Ak**
Floodplains	None	None	None
Coastal Barriers	None	None	None
Wild and Scenic River	None	None	None
Farmland	None	None	None
Energy Supply and Natural Resources	None	None	None
Solid Waste	None	None	None
Construction Impacts	None	None	None
Hazardous Materials	Materials will be disposed in accordance with applicable regulatory requirements.	Materials will be disposed in accordance with applicable regulatory requirements.	Materials will be disposed in accordance with applicable regulatory requirements.
Section 4(f) of DOT	None	None	None

	Biorka Island Environmental Remediation and Road Upgrade, Biorka Island, Ak	**FAA Comprehensive Housing Project, Cold Bay, Alaska**	**Environmental Cleanup at Ralston Island, Sunset Cover and Pleasant Island Stations, Alaska**
Characteristics			
Size:	Acreage not provided	Acreage not provided	Acreage not provided
Duration:	Undefined	Undefined	Undefined
Scope	• Building Demolition • Soil sampling and testing • Remediation of Lead Based Paint contaminated soils. • Removal of miscellaneous debris. • Upgrade/Grading of existing road • Includes obtaining state burn permit and burning wood debris on site. • Abatement of Asbestos Containing Materials. • Removal of Petroleum Contaminated soils	• Construction of two single family detached homes • Construction of three duplex townhouse unites. • Installation of fuel storage tanks • Connection to commercial power and city water and sewer • Soil sampling and testing • Remediation of Lead Based Paint contaminated soils. • Removal of miscellaneous debris. • Abatement of Asbestos Containing Materials. • Removal of Petroleum Contaminated soils	• Demolition of structures with LBP and asbestos • Soil sampling • Asbestos abatement and disposal • LBP abatement and disposal • LBP soil abatement and disposal • On site burning of wood materials • Off-Site disposal of non-burnable construction • Removal of Petroleum Contaminated soils
Scope	• Excavation for foundations and UST installation • Trenching for utility installation • Landscaping and surface restoration • Sediment and drainage control • Groundwater well installation • LBP soil sampling, excavation and disposal • Asbestos abatement and disposal • Solid waste – construction debris disposal • Petroleum contaminated soil sampling, excavation and disposal	• Excavation for foundations and UST installation • Trenching for utility installation • Landscaping and surface restoration • Sediment and drainage control • Groundwater well installation • LBP soil sampling, excavation and disposal • Petroleum contaminated soil sampling, excavation and disposal • Asbestos abatement and disposal • Solid waste – construction debris disposal	• Sampling, removal and disposal of drums • LBP soil sampling, excavation and disposal • Petroleum contaminated soil sampling, excavation and disposal • Asbestos abatement and disposal • Open burning of combustible debris • Off-site disposal of solid wastes
Inclusive Activities	March 1996	January 1996	February 2007
Regulatory Analysis			
Noise	Not applicable, as the site is a remote field location staffed only by FAA employees required to maintain facilities or participate in the project.	Temporary (undefined) noise expected during construction	Temporary (undefined) noise expected during construction
Land Use	Activities will occur on a previously developed portion of the island owned by FAA through public land withdrawal.	Activities will occur on a previously developed portion of the island owned by FAA through public land withdrawal.	Activities will occur on a previously developed portion of the islands and will return land to a more natural state, in alignment with current land usage.

	Biorka Island Environmental Remediation and Road Upgrade, Biorka Island, Ak	**FAA Comprehensive Housing Project, Cold Bay, Alaska**	**Environmental Cleanup at Ralston Island, Sunset Cover and Pleasant Island Stations, Alaska**
Socio/Economic Impact	Short Term job generation for construction labor	Short term construction jobs.	Short Term Construction Jobs
Air Quality	Temporary (undefined) during burn of wood debris.	Temporary (undefined) increase in dust levels.	Temporary (undefined) during burn of wood debris.
Water Quality	None	A parallel project to install water and sewer is being developed and will bring the water and sewer systems into compliance with Alaska Department of Environmental Conservation (ADEC) requirements.	None
Biotic Communities	Minor habitat loss could result.	Minor habitat loss to small mammals.	Minor habitat loss to small mammals.
Threatened and Endangered Species	Bald Eagles are often resident on the island during the summer construction season, however, none are nesting within the view shed of the project or will be impacted by the project. A minimum buffer of 330 as requested by USFWS will be maintained.	No T and # species would be impacted.	Bald Eagles are often resident on the island during the summer construction season, however, none are nesting within the view shed of the project or will be impacted by the project. A minimum buffer of 330 as requested by USFWS will be maintained. No threatened or endangered species would be impacted by this project.
Cultural Resources	Demolition of the CAA Air Navigation System (ANS) will be included in a PA with the ACHP. The site was not considered a good representation of an ANS, but will be documented for the National Archives.	CDB housing may have significance due to WWII and CAA historical contribution. Final disposition will comply with NHPA.	No impact to cultural resources and not eligible for listing on the NHRP.
Wetlands	None present within the project site.	None present within the project site.	None present within the project site.
CZMP	The project will be consistent with the CZMP.	The project will be consistent with the CZMP.	The project will be consistent with the CZMP.
Floodplains	Project is not included in the local flood plain.	Project is not included in the local flood plain.	Project is not included in the local flood plain.
Coastal Barriers	Project will not impact coastal barriers.	Project will not impact coastal barriers.	Project will not impact coastal barriers.
Wild and Scenic River	Project will not impact rivers or streams on the National Inventory of Wild and Scenic Rivers.	Project will not impact rivers or streams on the National Inventory of Wild and Scenic Rivers.	Project will not impact rivers or streams on the National Inventory of Wild and Scenic Rivers.
Farmland	Prime or unique farmlands will not be impacted.	Prime or unique farmlands will not be impacted.	Prime or unique farmlands will not be impacted.
Energy Supply and Natural Resources	None	New housing will actual reduce	None
Solid Waste	Solid waste will be removed from the island, when the heavy equipment is barged from the island.	The local landfill will be used for disposal of any solid waste resulting from the project and can accommodate the projected volume.	Solid waste from the project will either be burned on site or removed from the site for disposal in the local landfill, which can accommodate the projected volume of waste.

	Biorka Island Environmental Remediation and Road Upgrade, Biorka Island, Ak	**FAA Comprehensive Housing Project, Cold Bay, Alaska**	**Environmental Cleanup at Ralston Island, Sunset Cover and Pleasant Island Stations, Alaska**
Construction Impacts	Temporary (undefined) noise and dust increases.	Temporary (undefined) noise and dust increases.	Temporary (undefined) noise and dust increases.
Hazardous Materials	• Friable asbestos will be abated from existing housing and disposed of in a hazardous material landfill. • LBP will be abated and disposed properly.	• Fuel storage tank handling and fuel transfers will follow State of Alaska regulations • Contaminated soils from existing fuel storage tanks will be remediated in accordance with Alaska regulations • Friable asbestos will be abated from existing housing and disposed of in a hazardous material landfill. • LBP will be abated and properly disposed.	• Contaminated soils from existing fuel storage tanks or drums will be remediated in accordance with Alaska regulations • Friable asbestos will be abated from existing structures and disposed of in a hazardous material landfill. • LBP will be abated and properly disposed. • LBP contaminated soils will be remediated and disposed of in accordance with Federal and state regulations.
Section 4(f) of DOT	There are no 4(f) properties in the project area.	There are no 4(f) properties in the project area.	There are no 4(f) properties in the project area.
Mitigation Activities			
Noise	None	None	None
Land Use	None	None	None
Socio/Economic Impact	None	None	None
Air Quality	None	None	None
Water Quality	Establishment of SWPPP and obtaining NPDES Permit as necessary.	None	None
Biotic Communities	None	None	None
Threatened and Endangered Species	None	None	A 330 foot boundary will be observed around any bald eagles nest.
Cultural Resources	Mitigation will be conducted in accordance with Section 106 and SHPO requirements, as applicable.	Mitigation will be conducted in accordance with Section 106 and SHPO requirements, as applicable.	None
Wetlands	None	A wetlands permit will be obtained.	None
CZMP	Project will be reviewed by the state for consistency with CZMP, and will comply with applicable restrictions, if any.	Project will be reviewed by the state for consistency with CZMP, and will comply with applicable restrictions, if any.	Project will be reviewed by the state for consistency with CZMP, and will comply with applicable restrictions, if any.
Floodplains	None	None	None
Coastal Barriers	None	None	None

	Biorka Island Environmental Remediation and Road Upgrade, Biorka Island, Ak	**FAA Comprehensive Housing Project, Cold Bay, Alaska**	**Environmental Cleanup at Ralston Island, Sunset Cover and Pleasant Island Stations, Alaska**
Wild and Scenic River	None	None	None
Farmland	None	None	None
Energy Supply and Natural Resources	None	None	None
Solid Waste	None	None	None
Construction Impacts	None	None	None
Hazardous Materials	Materials will be disposed in accordance with applicable regulatory requirements.	Materials will be disposed in accordance with applicable regulatory requirements.	Materials will be disposed in accordance with applicable regulatory requirements.
Section 4(f) of DOT	None	None	None

	Environmental Assessment and FONSI of FAA Environmental Restoration, Katalla Station Alaska		
Characteristics			
Size:	Acreage not provided		
Duration:	Undefined		
Scope	• Demolition of structures with LBP and asbestos • Soil sampling • Asbestos abatement and disposal • LBP abatement and disposal • LBP soil abatement and disposal • On site burning of wood materials • Off-Site disposal of non-burnable construction • Removal of Petroleum Contaminated soils • Removal of bulk fuel storage tanks		
Scope	• Sampling, removal and disposal of drums • LBP soil sampling, excavation and disposal • Petroleum contaminated soil sampling, excavation and disposal • Asbestos abatement and disposal • Open burning of combustible debris • Off-site disposal of solid wastes		
Inclusive Activities	February 2008		
Regulatory Analysis			
Noise	Temporary (undefined) noise expected during construction		
Land Use	Activities will occur on a previously developed lands.		
Socio/Economic Impact	Short Term job generation for construction labor		
Air Quality	Temporary (undefined) during demolition activities and burning of wood debris.		
Water Quality	None		
Biotic Communities	Minor habitat loss could result from clearing of the pre-existing access road to the site.		

	Environmental Assessment and FONSI of FAA Environmental Restoration, Katalla Station Alaska		
Threatened and Endangered Species	Activities will be conducted during the non-nesting season to avoid impact to migratory bird species that use the area. While Bald Eagles, Peregrine Falcons, Pearle Falcons and other threatened and endangered species are known to be present in the general area, there is no documentation of them at the site.		
Cultural Resources	Due to removal of several key facilities and the overall level of deterioration of the site, the location has minimal historical value and is not eligible for listing on the NHRP.		
Wetlands	Wetlands are present at the site, however, project activities will have minimal impact to the wetlands, while debris may be removed from wetlands, no remedial action will be conducted in wetland areas.		
CZMP	The project will be consistent with the CZMP.		
Floodplains	Project is not included in the local flood plain.		
Coastal Barriers	Project will not impact coastal barriers.		
Wild and Scenic River	Project will not impact rivers or streams on the National Inventory of Wild and Scenic Rivers.		
Farmland	Prime or unique farmlands will not be impacted.		
Energy Supply and Natural Resources	None		
Solid Waste	Solid waste will be removed from the island, when the heavy equipment is barged from the island.		
Construction Impacts	Temporary (undefined) noise and dust increases.		
Hazardous Materials	▪ Friable asbestos will be abated from existing housing and disposed of in a hazardous material landfill. ▪ LBP will be abated and disposed properly.		
Section 4(f) of DOT	There are no 4(f) properties in the project area.		

	Environmental Assessment and FONSI of FAA Environmental Restoration, Katalla Station Alaska		
Mitigation Activities			
Noise	None		
Land Use	None		
Socio/Economic Impact	None		
Air Quality	None		
Water Quality	None		
Biotic Communities	None		
Threatened and Endangered Species	None		
Cultural Resources	None		
Wetlands	None		
CZMP	Project will be reviewed by the state for consistency with CZMP, and will comply with applicable restrictions, if any.		
Floodplains	None		
Coastal Barriers	None		
Wild and Scenic River	None		
Farmland	None		
Energy Supply and Natural Resources	None		
Solid Waste	None		
Construction Impacts	None		
Hazardous Materials	Materials will be disposed in accordance with applicable regulatory requirements.		
Section 4(f) of DOT	None		

Section II: FAA Office of Airports (ARP)

The FAA ARP Program's approach has been to gather documentation from professional staff and expert opinions, and evaluate activities included in Environmental Assessments (EAs) conducted by the FAA that resulted in Findings of No Significant Impact (FONSIs).

ARP PROPOSED NEW CATEGORICAL EXCLUSIONS

Proposed New Categorical Exclusion ARP #1: Approval to Build On-Airport Solar or Wind-Powered Generating Equipment

Proposed Text:

> *5-6.3i. Approval of an Airport Layout Plan (ALP), Federal financial assistance for, or FAA projects for: the installation of solar or wind-powered energy equipment, provided the installation does not involve more than three total acres of land (including the land needed for easements and rights-of-way associated with building and installing the equipment, and any trenching and cabling that would connect the installed solar or wind equipment to other parts of the airport or an existing electrical grid. Construction contracts or leases for this equipment must include requirements to control dust, sedimentation, storm water, and accidental spills).*

Background

In recent years, requests for installation of solar and wind-generated energy sources have been increasing. These requests can come from airport sponsors seeking approval of changes to their Airport Layout Plans (ALPs) or financial assistance through our Voluntary Airport Low Emission (VALE) funding program. In addition, FAA would like to use this technology at our facilities where appropriate. FAA supports these types of projects as they reduce emissions from other energy sources.

Airports that request solar and wind projects may use the solar or wind-generated power to meet a portion of on-airport power demand, or sell to a third party. In certain situations, an airport sponsor may want to lease the land to third parties wishing to install solar arrays or wind-powered turbines on airport land.

Types of Projects

The solar and wind projects typically associated with FAA approval or installation at FAA facilities are small-scale projects with limited environmental impacts. The proposed CATEX would limit the size of these projects to less than three acres of land, including the land needed for easements and rights-of-ways associated with building and installing the equipment, and any trenching and cabling that would connect the installed solar or wind equipment to other parts of the airport or an existing electrical grid. Projects that are larger than three acres would need to be evaluated under an environmental assessment.

Solar

Solar arrays are typically mounted to the rooftop of an existing facility or are ground-mounted. For those installed on rooftops the mountings will depend on the type, design, and structural

characteristics of the roof and wind-loading requirements of the panels. Exhibit II-1 shows a typical roof-mounted solar project.

Exhibit II-1. Example of a Roof-Mounted Solar PV System (FAA, 2010)

Ground-mounted solar installations typically use the same panels as roof-top arrays but are mounted onto poles and steel beams for extra support. These can be fixed poles and steel beams, or they can include tracking systems which utilize hydraulic or motor driven mechanisms to move the panels such that they are continuously perpendicular to the sun, maximizing their electric generation potential.

The minimal environmental impacts from these projects are associated with the installation of the panel arrays. Once the panels are installed, they require minimal maintenance. When the useful life of the solar panels expires, they must be decommissioned. The useful life of solar panels is anticipated to be between 20-25 years, although some solar panels are still operational after 29 years. The solar panels must be disposed of according to local and state regulations.

Exhibit II-2. Example of a Ground-Mounted Solar PV system (FAA, 2010)

Wind projects

A typical "wind farm" includes turbines that are in excess of 150' above ground level and involve a large number of units. These types of installations can interfere with radar technology and are not the type of project suitable for airports or FAA facilities.

There are two types of wind projects that are co-located with airports and FAA facilities: roof-mounted wind turbines and ground-mounted wind turbines. Roof-mounted wind turbines extend no more than 15 feet above the top of the roof (most extend between 8-10 feet). These wind turbine installations often involve a number of wind turbines ranging from as few as 5 to as many as 30.

Exhibit II-3. Rooftop Wind Turbines at Boston Logon Airport

There re a variety of ground-mounted wind turbines at airports and FAA facilities ranging from "standard" wind turbines (typically less than 150' above ground level) to the "vertical axis" wind turbine (see Figure 4), which are generally more compact and can be spaced closer together. Vertical axis turbines are typically under 100' in height. Only one standard wind turbine can be installed in a three acre area due to restrictions on spacing of these types of wind turbines. Some turbines do not have propellers and use cylindrically-shaped spinning units mounted vertically or horizontally. Vertical axis wind turbines have less spatial restrictions and therefore multiple turbines can be placed relatively close together. For example, Detroit Metro Airport has six vertical axis turbines outside of its terminal (see Exhibit II-4 below).

Exhibit II-4. Vertical wind turbines at Metro Airport in Detroit

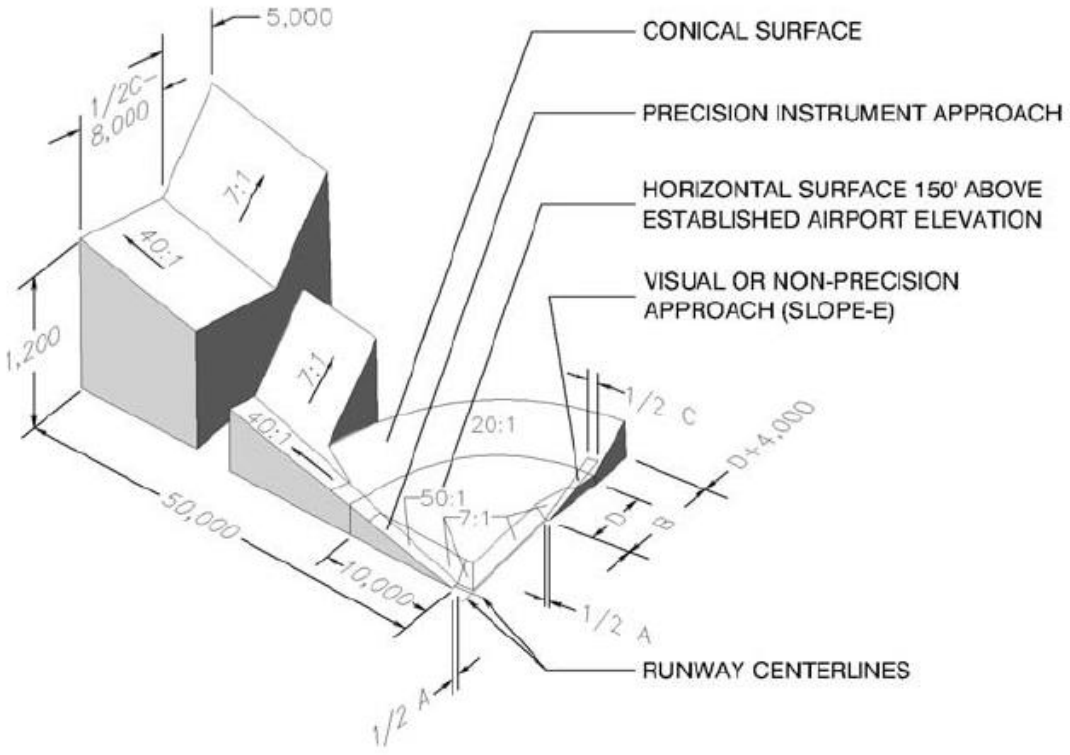
Under 14 CFR § 77.9, any person/organization who intends to sponsor any of the following construction or alterations must notify the FAA to ensure the project does not penetrate the navigable airspace around the airport known as "imaginary surfaces":

- any construction or alteration exceeding 200 feet above ground level
- any construction or alteration:
  - within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with its longest runway more than 3,200 feet
  - within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet
  - within 5,000 feet of a public use heliport which exceeds a 25:1 surface
- any construction or alteration located on a public use airport or heliport regardless of height or location.

These restrictions are provided in a graphic form in Exhibit II-5.

The obstruction notification process also triggers a review of the proposal to ensure it does not cause glare or radar interference.

Exhibit II-5. Imaginary Surfaces that Define Navigable Airspace



FAA Experience

Solar

Over the past 10 years, the FAA has approved a number of projects for solar-powered generating facilities. Exhibit II-6 contains examples of types of approved solar-powered generating facilities They range from small airports to large airports and contain roof-top solar facilities as well as ground-mounted solar facilities.

Exhibit II-6. Examples of On-Airport, Solar-powered Generating Facilities

Airport	Generating Capacity (MW)	Number of panels	Estimated Acreage	Location
Gen. Edward Logan International, Boston, MA	0.20	No Data Given (1,333)*	0.32	Roof, parking garage***
Denver International, Denver, CO Denver International, Denver, CO	2.00 1.60	9,250** 7,400**	2.2 1.8	Ground, near airport access road Ground, near fuel farm
Fresno Yosemite, Fresno, CA	2.00	11,700**	2.9	Ground, near Runway Protection Zone
George Bush Intercontinental, Houston, TX	0.060	No Data Given (400)*	0.1	Roof, terminal***
Meadows Field, Bakersfield, CA	0.744	4,704**	1.16	Ground, location not specified
Oakland International, Oakland, CA	0.756	4,000	0.98	Ground, between runway and taxiway
San Francisco International, San Francisco, CA	0.500	No Data Given (3,333)*	0.82	Roof, terminal***
San Jose International, San Jose, CA	1.10	No Data Given (7,333)*	1.8	Roof, rental car facility***

Data From: FAA, 2010
*= When no data on number of panels provided, we calculated number of panels needed to generate the given MW. In doing so, we assumed each panel generates 150 watts and is 10.76 sq.feet. (1 square meter)
**= Assumes each panel is 10.76 sq.feet (1 square meter)
*** = Collocated Facility

Wind Projects

Wind projects are less common at airports and FAA facilities than are solar projects, due to the restrictions that arise from protection of navigable airspace.

Exhibit II-7 lists wind-powered generating facilities constructed on existing structures at several airports. The FAA has limited experience evaluating the environmental impact of small-scale installations such as these. The facilities listed in Exhibit II-7 were constructed on existing structures with non-FAA funds, so there was no Federal undertaking triggering a NEPA analysis.

Wind turbine installations associated with airports consist of either low numbers of smaller-scale standard turbines (under 150' above ground level) or several smaller vertical axis turbines or roof top turbines. For example, six cylindrical, propeller-free wind turbines at Denver International Airport are each 30 feet tall and 4 feet in diameter.

Exhibit II-7. Examples of On-Airport, Wind-powered Generating Facilities

Airport	Generating Capacity	Number of turbines	Height	Location
Gen. Edward Logan International, Boston, MA	100,000 kW	20	10 feet	Roof
Denver International, Denver, CO	9.6 kW	6	30 feet	Parking lot
Detroit Metro, Detroit, MI	No data given	6	30 feet	Parking lot
Honolulu International, Honolulu, HI	No data given	16	No data given	Roof
Burlington International, Burlington, VT	100 kW	1	121 feet	Commercial Hangar

Potential Environmental Impacts

Construction of Solar and Wind Facilities

Construction of structures to support ground-mounted generation equipment on airport land involves minor ground disturbance (e.g., drilling for ground support structures, excavating for wind turbine foundations, leveling terrain). Observations by experienced NEPA practitioners indicate the construction impacts of these facilities are minimal. Some of these projects can be located on the roofs of existing structures which would eliminate any impacts associated with land disturbance. Furthermore, most airport property and FAA facilities have been previously disturbed and/or actively managed in accordance with recommended vegetation and wildlife management plans to maintain a safe operating environment for aircraft.

Potential environmental impacts from the construction of the solar and wind projects include dust emissions, erosion, sedimentation, storm water runoff, and accidental spills. These impacts are addressed by the following language in the proposed CATEX: "construction contracts or leases for this equipment must include requirements to control dust, sedimentation, storm water, and accidental spills." All construction on airports must comply with the Best Management Practices found in FAA Advisory Circular 150/5370-10, *Standards for Specifying Construction on Airports* (see Item P-156 Temporary Air and Water Pollution, Soil Erosion, and Siltation Control).

Operation and Maintenance of Solar and Wind Facilities

Because solar and wind energy systems do not release emissions or store hazardous materials, potential environmental impacts are limited. Operational activities consist of routine monitoring to ensure the facilities are working properly. In rare circumstances, solar panels can be a wildlife attractant. However, there is less risk of this on airport property due to the presence of security fencing surrounding the airport and active wildlife control by airport management. Birds could be of concern since they are not restricted by fences; however, birds are generally discouraged from congregating or roosting on airports. Many airport sponsors have included measures to reduce aircraft-bird collisions in their wildlife hazard programs. These programs reduce collisions thereby reducing avian mortality (most aircraft-bird collisions result in avian mortality).

The main concern with wind farms is the impact the turbines could have on migratory or other protected birds, such as the Bald or Golden Eagle. Wind turbines may also impact bat populations. In addition, there are concerns with visual and noise impacts to surrounding areas. These impacts have been associated with the large wind farms described above in which there are number of large turbines (in excess of 150 feet above ground level) covering a large stretch of land. These types of impacts would not be expected with the smaller-scale wind projects that would be covered by this proposed CATEX.

This CATEX limits the number of acres for wind energy projects. The turbines would be smaller in size and numbers than a typical wind farm. The height of the turbines is restricted under the navigable airspace review as described above. As a result, the frequency of injury due to collision with on-airport turbines should be lower than that associated with larger turbines located outside of airports. FAA experience indicates that these types of projects do not result in any significant impacts to bird and bat populations.

The noise associated from these types of turbines is minimal compared to other noises typically generated at an airport and would not cause significant noise impacts.

Disposal

Solar panels and wind turbines do not contain hazardous materials and therefore there are no specific concerns with the disposal of these products at the end of their useful life. Their disposal is carried out in accordance with local and state solid waste requirements and does not cause significant impacts.

Other Agencies' Experience

Other Federal Agencies have experience with solar and wind projects as described below. Although some of these projects are on a much larger scale than what FAA has proposed to cover under the proposed CATEX above, they have been included to provide evidence that even with these types of projects the impacts would not create significant impacts.

Solar

Other Federal Agencies have experience with solar and wind projects as described below. Although some of these projects are on a much larger scale than what FAA has proposed to cover under the proposed CATEX above, they have been included to provide evidence that even with these types of projects the impacts would not be significant.

Solar

Both the Department of Agriculture (USDA) and the Department of Energy (DOE) have relevant CATEXs for the installation of solar panels that are similar to the one being proposed by FAA.

- Department of Agriculture (USDA), 7 CFR § 1794.22 (a)(iii)(8) states "construction of distributed energy generation totaling 10 MW or less at an existing utility, industrial, commercial or educational facility site."

Although FAA's proposed CATEX limits the projects based on total acres rather than 10 MW, the types of actions that were examined only generated 2 MW or less (see Exhibit II-6 above). Based on the limitations being 10 MW, it is expected that the actions covered under USDA's CATEX would involve more acres than those proposed by FAA. Since the environmental impacts associated with these types of projects involve land disturbance, it is expected that the

environmental impacts from FAA proposed projects under this CATEX would be less than the potential impacts under USDA's CATEX.

- The Department of Energy CATEX B5.16: The installation, modification, operation, and removal of commercially available solar photovoltaic systems located on a building or other structure (such as rooftop, parking lot or facility, and mounted to signage, lighting, gates, or fences), or if located on land, generally comprising less than 10 acres within a previously disturbed or developed area. Covered actions would be in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.

The DOE CATEX limits the acreage to less than 10 acres, whereas FAA has limited the acreage to three acres or less including the trenching needed. Limiting the acreage to three acres or less, helps to ensure that the potential impacts do not individually or cumulatively lead to significant impacts. The lands that would typically be used in these projects are previously disturbed areas on the airport or surrounding FAA facilities and would therefore be similar to those described under the DOE CATEX.

Federal agency NEPA reviews involving "co-located" or "distributed" solar energy projects are:

- DOE/EA-1573: Three Site Development Projects at NREL- South Table Mountain, FONSI (July 2007). Various solar photovoltaic technology demonstrations, including a ground photovoltaic installation on 2 acres.
- Department of Labor, Job Corps, Preliminary FONSI (74 FR 45252; Sept. 1, 2009) and Final FONSI for the Edison Job Corps Center Solar Photovoltaic (PV) Project Located at the Edison Job Corps Center, 500 Plainfield Avenue, Township of Edison, NJ 08817 (74 FR 57196; Nov. 4, 2009). Approximately 2 acres of ground-mounted photovoltaic modules (1,620 modules in total) on undeveloped grass lawn surrounded by existing facilities.
- Department of Labor, Job Corps, Preliminary FONSI (74 FR 45252; Sept. 1, 2009) and Final FONSI for the Solar PV Project Located at Westover Job Corps Center, 103 Johnson Drive, Chicopee, MA (74 FR 51797; Nov. 4, 2009). Approximately 1.5 acres of stationary, solar photovoltaic panels in previously developed area adjacent to the closest electrical terminal at the Westover Job Corps Center.
- Department of Veterans Affairs, FONSI - Solar PV power at Calverton National Cemetery (August 2009). Project consists of one acre of ground mounted photovoltaic arrays at various locations on the Cemetery site and consists of photovoltaic arrays, inverters, and ancillary equipment to connect to existing building electrical system.
- Department of Veterans Affairs, FONSI - Ground mounted solar photovoltaic power at San Joaquin National Cemetery (August 2009). Approximately 1.5 acres of stationary, solar photovoltaic panels in previously developed area to create a 150 to 200 kilowatt system adjacent to the closest electrical terminal at the Cemetery.

These projects are similar to the projects that FAA has proposed to cover under the proposed CATEX. We would expect the environmental impacts to be similar to those examined under the

environmental assessments listed above. Each of these projects has resulted in findings of no significant impact.

Wind

The DOE has a CATEX B5.18 that is similar to the type of projects that FAA has proposed to cover under the proposed CATEX.

> CATEX B5.18. The installation, modification, operation, and removal of a small number (generally not more than 2) of commercially available wind turbines, with a total height generally less than 200 feet (measured from the ground to the maximum height of blade rotation) that (1) are located within a previously disturbed or developed area; (2) are located more than 10 nautical miles (about 11.5 miles) from an airport or aviation navigation aid; (3) are located more than 1.5 nautical miles (about 1.7 miles) from National Weather Service or Federal Aviation Administration Doppler weather radar; (4) would not have the potential to cause significant impacts on bird or bat populations; and (5) are sited or designed such that the project would not have the potential to cause significant impacts to persons (such as from shadow flicker and other visual effects, and noise). Covered actions would be in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices. Covered actions include only those related to wind turbines to be installed on land.

Although the DOE CATEX has a lot more limitations than the one proposed by FAA, this is based on the type of wind turbines associated with these projects. The types of wind turbines associated with FAA projects would be shorter than 150' feet and would be located at an airport or FAA facility. The limitation of less than three acres, limits any associated environmental impacts related to ground disturbance. DOE's limitation that it be located 1.5 nautical miles from National Weather Service or Federal Aviation Administration Doppler weather radar is based on the potential for large wind farms to be detected by the Doppler systems. The potential to detect the smaller wind turbines that would be covered under the proposed CATEX is minimal and therefore the CATEX does not need to be limited. Impacts to birds and people are associated with big wind turbines and their proximity to neighborhoods (people) and migration patterns (birds). The projects proposed by FAA would be smaller and would be located near airports or FAA facilities, where bird populations are typically managed to reduce air strikes with planes and buffers around airports are typically constructed to minimize noise impacts from aircraft.

Federal agency experience with a small number of wind turbines of less than 200 feet in height:

- DOE/EA -1584: Sandpoint Wind Installation Project, FONSI (September 2009). Installation of two 500 kilowatt wind turbines standing at a total maximum height (ground to maximum blade rotation) of 194 feet.
- DOE/EA-1280: Nome Alaska Wind Turbine, FONSI (November 2000). Installation of up to two wind turbines. Wind turbine models under consideration include a 225 kilowatt measuring at 154 feet total height (ground to maximum blade rotation), and 550 kilowatt turbine measuring at 199 feet total height (ground to maximum blade rotation).

- DOE/EA-1245: Kotzebue Wind Project, FONSI (May 1998). Installation of ten turbines with maximum height (ground to maximum blade rotation) of 111.5 feet tall wind turbines to generate 0.66 megawatts of power.
- Department of Labor, Job Corps, Preliminary FONSI (74 FR 45254; Sept. 1, 2009) and Final FONSI for a Small Wind Turbine Installation at Laredo (Texas) Job Corps Center (74 FR 212; Nov. 4, 2009). Construction of two, 10 kilowatt wind turbines with maximum height (ground to maximum blade rotation) of 151 feet located adjacent to existing Job Corps facilities.
- Department of Labor, Job Corps, Preliminary FONSI (74 FR 45254; Sept. 1, 2009) and Final FONSI for a Small Wind Turbine Installation at Angell (Oregon) Job Corps Center (74 FR 212; Nov. 4, 2009) Construction of two, 10 kilowatt wind turbines with maximum height (ground to maximum blade rotation) of 151 feet located adjacent to existing Job Corps facilities.
- Department of Labor, Job Corps, Preliminary FONSI (74 FR 45254; Sept. 1, 2009) and Final FONSI for a Small Wind Turbine Installation at Cassadaga (New York) Job Corps Center (74 FR 212; Nov. 4, 2009). Construction of two, 10 kilowatt wind turbines with maximum height (ground to maximum blade rotation) of 151 feet located adjacent to existing Job Corps facilities.
- Department of Defense, Department of the Navy, EA and Final FONSI for Implementation of the Wind Energy Program at the U.S. Marine Corps Forces Reserve Facilities (MARFORRES) at Locations across the United States (76 FR 21712; July 18, 2011). Implementation of a wind energy program consisting of small-scale wind energy systems on MARFORRES facilities at a variety of locations throughout the U.S. Under the wind energy program, MARFORRES would site, design, construct, and operate small-scale wind energy systems, including those consisting of one to four small (equal to or less than 100 kW) turbines.
- DOE/EA1737: Environmental Assessment for DOE's Proposed Financial Assistance to Pennsylvania for Frey Farm Landfill Wind Energy Project, Manor Township, Lancaster, PA, FONSI (February 2010). Installation of two wind turbines in former landfill to generate approximately 3.6 megawatts of electricity for adjacent dairy facilities.
- DOE/EA 1648: White Earth Nation Wind Energy Demonstration Project, FONSI (April 2009). Installation of single 750-kilowatt wind turbine with maximum height of 230 feet.
- DOE/EA-1516: Environmental Assessment for the Proposed Clipper Windpower, Inc. Low Wind Speed Turbine Demonstration Project, Carbon County, Wyoming, FONSI (January 2005). Three-year demonstration of a wind turbine designed to produce electricity at low speed with maximum output of 2.5 megawatts.

Conclusion

FAA has concluded that the actions that would be covered under the proposed CATEX are actions that would not individually or cumulatively cause significant impacts. This is based on FAA experience, relevant studies, and other agency experience with similar actions.

Proposed New Categorical Exclusion ARP #2: Approval of Fee-Simple Purchase of Off-Airport Land or Purchasing an Avigation Easement over Off-Airport Land to Establish Runway Protection Zones that do Not Involve Land Disturbance

Proposed Text:

> *5-6.4bb. Airport Layout Plan (ALP) approval and/or Federal financial assistance for actions related to a fee-simple purchase of land or the purchase of an avigation easement to establish a runway protection zone (RPZ) or for other aeronautical purposes provided there is no land disturbance and does not require extensive business or residential relocations.*

Background

Airports may acquire land for a number of reasons that do not involve land disturbance. Often this land is purchased to ensure that there is land use compatibility with airport operations. Compatible land use is especially important within a Runway Protection Zone (RPZ) and is generally restricted to such land uses as agricultural or similar uses that do not involve congregations of people, or construction of buildings or other improvements that may be obstructions to air navigation.

RPZs are a trapezoidal area off the runway end that serve to enhance the protection of people and property on the ground in the event an aircraft lands or travels beyond the runway end. It is comprised of the Object Free Area, the Extended Object Free Area, and the Controlled Activity Areas, as shown below in Exhibit II-8:

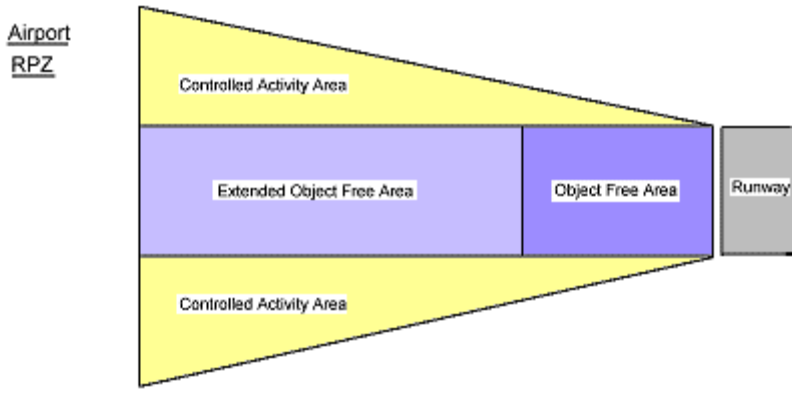


Exhibit II-8. Runway Protection Zone

The airport owner must strive to attain compatible zoning around the airport in order to prevent incompatible land uses that:

- could cause sufficient conflict that endangers the airport;
- cause it to be closed; or
- require substantial remedial investment to purchase conflicting developed property

The specific dimensions of the Runway Protection Zone are dependent on certain factors, including the type of aircraft operating at the airport, and can vary greatly. (See Paragraph 212 of

FAA Advisory Circular 150/5300-13, *Airport Design*, and Paragraphs 581 and 701b(1) and (2) of FAA Order 5100-38C, *Airport Improvement Program Handbook*).

The goal of RPZ areas is to prevent the construction of structures or land uses that are not compatible with safe airport operations. The FAA recommends, and often provides funding to airport sponsors for, purchase of land near runway ends through fee simple transactions. Avigation easements may be used when acquisition of land is not possible. Avigation easements give the sponsor the right of flight over these areas (including noise and vibration above the approach surface) and prevent future obstructions to safe and efficient air navigation.

Potential Environmental Effects

The acquisition of land or an avigation easement in these cases would normally not cause any environmental impacts because the actions covered by this CATEX apply only to change in ownership and control of the land where there is no land disturbance.

In some cases, purchase of property for an RPZ may involve businesses or residences that are incompatible with the safe and efficient operation of the airport. However, any relocations that are necessary are done in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act. The CATEX has been further limited to cases that do not require extensive business or residential relocations.

Environmental impacts from acquisition of land generally involve how that land will be used or developed. In these circumstances, the airport is acquiring the land to prevent future development. Any subsequent land disturbance or development would be evaluated under a separate NEPA review.

FAA Experience

The FAA has experience with sponsors acquiring land for controlling the RPZ or for other aeronautical purposes. Land acquisition is often done to comply with grant assurances tied to another type of project that requires analysis under an EA or EIS. However, in some cases, the sponsor is buying land for compatibility purposes without an associated development project. Because there is no ground disturbance and generally no change in use of the land, these projects don't have potential environmental impacts and therefore, the preparation of an environmental assessment is a paper work exercise that provides little added value.

Current FAA CATEXs provide for the purchase of three acres of land or less for development (FAA Order 1050.1E, para. 310r) and for the purchase of land for purposes covered under an existing CATEX (FAA Order 1050.1E, para. 310b). There is no CATEX for purchases of land where there will be no change to the human environment.

The following EAs, listed below in Exhibit II-9, have been prepared for the types of projects that would be covered under this CATEX. Although these have occurred at small airports, this CATEX is not limited to small airports as the impacts would not be dependent on the size of parcel or what is being purchased.

Exhibit II-9. Environmental Assessments and FONSIs Addressing Establishing Runway Protection Zones*

Airport Name	Action	Acreage	Present & Future Use	FONSI Date

Airport Name	Action	Acreage	Present & Future Use	FONSI Date
Jerome County, ID	Buy land	31.3	Agriculture	2007
Wayne Muni, NE	Buy avigation easement	22.0	Agriculture	2008
Cram Field, NE	Buy land / buy avigation easement	10/ 50	Floodplain	2008

*None of these EAs involved any actions that physically disturbed environmental resources.

Other Agencies

Several agencies have CATEXs that are similar to the CATEX being proposed by FAA. The following CATEXs help to show that the types of actions that FAA is proposing to CATEX are the same kind of projects that other agencies have established as CATEXs.

- The General Services Administration has the following CATEX: Acquisition of land or easements that result in no immediate change in use and where subsequent compliance with NEPA and other applicable laws and regulations will take place as needed.

  The Federal Transit Administration has CATEXs for advance land acquisition including acquisition of underutilized private railroad rights-of-way (ROW) to ensure that adjacent land uses remain generally compatible with the continued transportation use of the right-of-way.

- The Federal Highway Administration has CATEXs for advance land acquisition including:
  - Acquisition of land for hardship or protective purposes. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CATEX only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.
    i. Hardship acquisition is early acquisition of property by the applicant at the property owner's request to alleviate particular hardship to the owner, in contrast to others, because of an inability to sell his property. This is justified when the property owner can document on the basis of health, safety or financial reasons that remaining in the property poses an undue hardship compared to others.
    ii. Protective acquisition is done to prevent imminent development of a parcel which may be needed for a proposed transportation corridor or site. Documentation must clearly demonstrate that development of the land would preclude future transportation use and that such development is imminent. Advance acquisition is not permitted for the sole purpose of reducing the cost of property for a proposed project.

- The National Park Service has a CATEX for grants for acquisition of areas which will continue in the same or lower density use with no additional disturbance to the natural setting.

- The Federal Emergency Management Agency has a CATEX for acquisition of properties and associated demolition/removal when acquisition is: from a willing seller, the buyer

coordinated acquisition planning with affected authorities, and the acquired property will be dedicated in perpetuity to uses that are compatible with open space, recreational, or wetland practices.

Conclusion

The acquisition of land or an avigation easement for an RPZ does not in and of itself result in environmental impacts, and the proposed CATEX would apply only if there is no land disturbance or extensive relocations of residences or businesses. Therefore, the FAA has determined that the actions covered by the proposed CATEX will not individually or cumulatively have significant effects under normal circumstances.

Proposed New Categorical Exclusion ARP #3: Approval to Permanently Close a Runway and Use it as a Taxiway

Proposed Text:

> *5-6.4cc. Approval of an Airport Layout Plan (ALP) and/or Federal financial assistance to permanently close a runway and use it as a taxiway at small, low-activity airports, provided any changes to lights or pavement would be on previously developed airport land. (ARP)*

Background

In airports where operational levels have decreased over time, an airport sponsor may no longer need a secondary runway[8] and may want to use it as a taxiway.[9] This normally occurs at small, low activity airports. Using a runway as a taxiway is an excellent way to reuse airport facilities in a way that enhances airport safety and operations without causing significant environmental impacts.

Converting a runway to a taxiway may require minimal disturbance of land such as removing runway lights and installing taxiway lights and marking the pavement. If the former runway is wider than what is needed to meet standards for the taxiway, the extra width of runway pavement may be removed so that the airport sponsor does not incur ongoing costs to maintain it.

The proposed CATEX does not include building a new runway to replace a runway converted to a taxiway. Paragraphs 702.f and 903 of FAA Order 5050.4B (2006) normally require an EA or an EIS, respectively, for a new runway due to the level of environmental effects such actions typically cause.

Potential Environmental Effects

There are minimal environmental impacts associated with the conversion of a runway to a taxiway. Construction impacts from the removal of runway lights and the installation of taxiway lights are minimal. There would be minimal impacts from the demolition of excess runway pavement, if necessary. Making the proposed CATEX applicable only if any changes to lights or pavement would be on previously developed airport land helps minimize any impacts to archeological, historic, or cultural resources.

With airport actions, the primary environmental impact concerns are generally noise and air emissions. Conversion of a runway to a taxiway would not increase the number of flights or times that aircraft operate at an airport. The restriction that the proposed CATEX could only be used at small, low-activity airports minimizes the chance that there will be aircraft congestion or delays that could result in an increase in air emissions. In addition, there will not be an overall increase in noise because the total number of aircraft operations will not increase; however, flights going into and out of the airport would use fewer runways. This could cause a shift in noise contours and could result in a slight increase in noise levels coming off the existing runways. FAA experience and modeling suggests that this would not result in significant noise impacts over noise sensitive areas as defined in Paragraph 11-5.b(8) in Order 1050.1F. The 65

8 A runway is the rectangular surface on an airport prepared or suitable for the landing or takeoff of airplanes. (FAA Advisory Circular 150/5300-13)

9 A taxiway is a defined path established for the taxiing of aircraft from one part of an airport to another.

DNL noise contour at small, low-activity airports typically does not extend beyond airport property.

Conclusion

The conversion of a runway to a taxiway has minimal environmental impacts. The proposed CATEX is limited to areas that have been previously disturbed to avoid any impacts to historic or cultural resources. Therefore, the FAA has determined that the actions covered by the proposed CATEX will not individually or cumulatively have significant effects under normal circumstances.

Proposed New Categorical Exclusion ARP #4 - Approval of and/or Federal Funding to Construct, Reconstruct, or Relocate a Level 1 Air Traffic Control Tower (ATCT) at an Existing Airport

Proposed Text:

> *5-6.4dd. FAA construction, reconstruction, or relocation of a non-Radar, Level 1 airport traffic control tower (a tower that does not use radar) at an existing visual flight rule airport, or FAA approval of an Airport Layout Plan (ALP) and/or Federal funding to do so, provided the action would occur on a previously disturbed area of the airport and not: (1) cause an increase in the number of aircraft operations, a change in the time of aircraft operations, or a change in the type of aircraft operating at the airport; (2) cause a significant noise increase in noise sensitive areas; or (3) cause significant air quality impacts. (ARP, ATO)*

Background

A majority of small airports do not have airport traffic control towers and are known as uncontrolled airports. These airports rely on Visual Flight Rule (VFR) procedures that aircraft must follow when landing or taking off at these airports. Over time, operations at an uncontrolled airport may result in a variety of different types of aircraft that have differing performance capabilities. This may create a safety or efficiency problem that a sponsor or the FAA may address by constructing an ATCT.

There are several different categories of ATCTs. FAA characterizes towers by number of operations (take-offs or landings) as Level I through Level V; Level I towers have the lowest number of operations. FAA has subsequently revised the categories; however level 1 still remains the same. Levels 2-5 have now been classified under 14 different levels based on a number of variables including number of operations.

Level 1 ATCTs are located at VFR-only airports (non-radar). These airports operate during conditions that "…must be clear of clouds and [allow a pilot to] operate during conditions which will permit the pilot to see and avoid other aircraft" (see 14 CFR § 91.155).

Level 1 ATCTs are generally around 50 – 80 feet tall (Quadrex Aviation, 2012). They are built from a variety of materials, but all have a 360 degree window enclosure at the top of the building to enable air traffic controllers to see the aircraft coming in from all directions. The towers are located on airport property with a clear view of the runways (examples are pictured below in Exhibit II-10).



Exhibit II-10. Examples of Level I Air Traffic Control Towers (ATCTs)

Potential Environmental Effects

Construction of ATCTs involves a relatively small footprint so the primary environmental concerns associated with new towers are related to operational impacts.

Construction Impacts

The construction footprints of ATCTs covered under this proposed CATEX and their associated employee parking lots are unlikely to cause significant impacts since the CATEX is limited to construction on previously disturbed areas of the airport. These previously disturbed areas are not likely to have sensitive resources due to previous airport development.

Construction impacts relating to noise, solid waste, water quality and air quality are minimal. This is because the ATCTs are very small with typically modular components and have a small physical footprint with a short construction duration. In addition, airport sponsors are required to follow FAA's Standards for Specifying Construction of Airports (Advisory Circular 150/5370-10F) to minimize impacts associated with construction.

Operational Impacts

The primary environmental concern with aircraft operations is the potential for noise and air emissions. Changes in operational numbers, aircraft types, or times of day of operations can result in changes to noise and emission impacts. The proposed CATEX only applies to actions that will not cause: (1) an increase in operational numbers or a change in aircraft types or times of day of operations; (2) a significant noise impact; or (3) significant air quality impacts.

The noise and emissions information below is based on the operations typical at a level 1 ATCT.

Noise

The FAA analyzed the number of operations at Level 1 ATCTs at existing VFR airports provided by Quadrex Aviation and determined that 241 out of 247 airports had operational levels lower than those that would require a noise screening tool to determine if there are significant noise impacts[10].

[10] FAA has detailed how to analyze noise impacts in FAA Order 1050.1E. No noise analysis is needed for projects involving Design Group I and II airplanes (wingspan less than 79 feet) in Approach Categories A through D (landing speed less than 166 knots) operating at airports whose forecast operations in the period

Noise screening can be used for airports that have in excess of 90,000 annual propeller operations or 700 jet operations to rule out the need for a more detailed noise analysis and provide documented support for a CATEX if screening shows no potential for significant noise impacts. If the screening tool identifies a potential for significant noise impacts, the proposed CATEX would not apply.

Air Emissions

Increases in operational numbers or differences in aircraft type have the potential to increase emissions at an airport. For airport projects, Section 2.3.4 of the FAA Air Quality Procedures for Civilian Airports and Air Force Bases provides an equation based on aircraft operations and enplanements that defines a threshold above which NAAQS analysis should be considered. Typically, Level 1 towered airports are below the levels for which a NAAQS analysis should be considered and therefore would not have the potential for significant air quality impacts. For those few Level 1 towered airports that might be above this defined threshold, any impacts to air quality would be evaluated and addressed as part of the review to determine if the CATEX applies to the action.

FAA Experience

The following is a list of EAs (see Exhibit II-11 below) that involve construction or relocation of ATCTs at various airports. These do include airports that contain higher levels of operations than what is typical for a Level I ATCT airport. However, the environmental impacts of the construction of the Towers are similar in nature and can be used to describe the impacts associated with the construction or relocation of Level 1 ATCTs. The Table in Exhibit II-11 identifies the Airport, the purpose, the project, the operations at the airport and the potential impacts of the action. Exhibit II-11 identifies based aircraft, any effect on operations, and the number of current operations to illustrate the level of activity of the airport. As mentioned above, effect on operations can lead to significant impacts in air quality and noise.

covered by the NEPA document do not exceed 90,000 annual propeller operations (247 average daily operations) or 700 jet operations (2 average daily operations). These numbers of general aviation propeller and jet operations result in DNL 60 dB contours of less than 1.1 square miles that extend no more than 12,500 feet from start of takeoff roll. The DNL 65 dB contour areas would be 0.5 square mile or less and extend no more than 10,000 feet from start of takeoff roll. FAA Order 1050.1E, Appendix A, section 14.6a.

Exhibit II-11. Previous FAA EAs Involving ATCTs

Airport	Type	Based Aircraft	Effect on Operations	# of Operations	Impacts
Easton/ Newman Field, Easton, MD	Construction of a Level I ATCT to enhance air safety and airport efficiency by better managing faster aircraft and slower recreational aircraft flying uncontrolled patterns in the airport area.	117 single-engine 23 multi-engine 11 corporate jets 7 helicopters	No direct increases to number of aircraft, type of aircraft, or aircraft operations, including time of day.	160,000	Temporary increases in noise, solid waste, water quality and air quality during construction. The airport sponsor used the best practices identified in FAA Advisory Circular 150/5370-10F, Item 156 to mitigate air and water effects.
Washington Dulles International Airport	Relocate and replace the ATCT to accommodate personnel and equipment to efficiently control the airport's current volume of traffic.	4 single- engine 2 multi-engine 36 corporate jets 2 helicopters	No direct increases to number of aircraft, type of aircraft, or aircraft operations, including time of day.	336,165	Temporary increases in noise, solid waste, water quality and air quality during construction. The airport sponsor used the best practices identified in FAA Advisory Circular 150/5370-10F, Item 156 to mitigate air and water effects. Minor wetland impacts that were mitigated. Minimal (no adverse) effects to historic district.
Las Vegas McCarran International Airport	Relocate and replace the ATCT to accommodate personnel and equipment to efficiently control the airport's current volume of traffic, provide adequate line of sight from the tower cab.	5 single-engine 4 multi-engine 63 corporate jets 54 helicopters	No direct increases to number of aircraft, type of aircraft, or aircraft operations, including time of day.	531,075	Temporary increases in noise, solid waste, water quality and air quality during construction The airport sponsor used the best practices identified in FAA Advisory Circular 150/5370-10F, Item 156 to mitigate air and water effects. Removal of asbestos.
San Francisco International Airport	Relocate and replace the ATCT to accommodate personnel and equipment to efficiently control the airport's current volume of traffic, provide adequate line of sight from the tower cab. Provide tower that meets seismic standards.	1 single-engine 1 multi-engine 7 corporate jets 1 helicopter	No direct increases to number of aircraft, type of aircraft, or aircraft operations, including time of day.	426,685	Temporary increases in noise, solid waste, water quality and air quality during construction. The airport sponsor used the best practices identified in FAA Advisory Circular 150/5370-10F, Item 156 to mitigate air and water effects.

Conclusion

Construction or relocation of Level 1 ATCT towers at VFR airports does not result in significant impacts as long as there is no increase in number of operations, a change in time of operations, or a change in the type of aircraft operating at the airport. The construction or relocation results in a very small construction footprint and is limited to previously disturbed areas to minimize any potential impact to sensitive resources. Therefore, the FAA has determined that the actions covered by the proposed CATEX will not individually or cumulatively have significant effects under normal circumstances.

Proposed Revision to Paragraph 310i to Include Approval to Demolish On-airport, Non-FAA-Owned Buildings, Facilities, or Structures

Existing CATEX:

> *310i. Demolition and removal of FAA buildings and structures, except those of historic, archaeological, or architectural significance as officially designated by Federal, State, or local government; and alteration of an existing FAA facility that does not alter or change environmental impacts of the existing facility or structure, provided no hazardous substances contamination is present on the site or contaminated equipment is present on the site.*

Proposed Text:

> *5-6.4i. Demolition and removal of FAA buildings and structures, or financial assistance for or approval of an Airport Layout Plan (ALP) for the demolition or removal of non-FAA owned, on-airport buildings or structures, provided no hazardous substances ~~contamination is present on the site~~ or contaminated equipment is present on the site of the existing facility. This CATEX does not apply to buildings or structures ~~except those~~ of historic, archaeological, or architectural significance as officially designated by Federal, state or local government. ~~and alteration of an existing FAA facility that does not alter or change environmental impacts of the existing facility or structure,~~*

Background

The FAA has been utilizing this CATEX for FAA facilities for the demolition and alteration of existing facilities. The demolitions and removals of similar non-FAA structures that are located on airports are currently not covered under this CATEX even though such actions have similar impacts.

Potential Environmental Effects

The potential environmental impacts of demolition and removal of buildings and structures, regardless of who owns the building, include minimal air quality impacts created by project-related emissions from dust and air pollutants, temporary noise impacts from construction or demolition equipment, and minor increases in construction trucks during the demolition. The primary concern associated with demolition of a building is the waste generation, specifically hazardous materials. The existing CATEX is limited to buildings and facilities that do not have hazardous substances or contaminated equipment.

Other Agencies' Experience

The following are examples of other agency CATEXs which are similar to that proposed by FAA. These can be used to demonstrate that these types of actions do not individually or cumulatively have significant impacts. The proposed CATEX has similar limitations to the CATEXs described below including limiting demolition of historical buildings and those buildings or structures which may contain contaminated materials.

Department of Energy

CATEX Bl.23:

Demolition and subsequent disposal of buildings, equipment, and support structures (including, but not limited to, smoke stacks and parking lot surfaces).

Department of Homeland Security

E.4 Removal or demolition, along with subsequent disposal of debris to permitted or authorized off-site locations, of non-historic buildings, structures, other improvements, and/or equipment in compliance with applicable environmental and safety requirements.

Bureau of Land Management

516 DM 2, Appendix 4, J.10: Removal of structures and materials of no historical value, such as abandoned automobiles, fences, and buildings, including those built in trespass and reclamation of the site when little or no surface disturbance is involved.

Federal Emergency Management Agency

(xii) Demolition of structures and other improvements or disposal of uncontaminated structures and other improvements to permitted off-site locations, or both;

Conclusion

Demolition and removal of non-FAA buildings and structures on airports have the same environmental impacts as demolition and removal of FAA buildings and structures, which are already covered by the existing CATEX. Therefore, the actions covered by the proposed CATEX modification would not involve different environmental impacts than the actions covered by the existing CATEX. Based on the above information, FAA has concluded that there will not be individual or cumulative significant impacts from these activities.

Proposed Revision to Paragraph 311l to Include Establishing a Displaced Threshold

Existing CATEX:

> *311l. Removal of a displaced runway threshold on an existing runway.*

Proposed Revisions:

> *5-6.5l. Federal financial assistance and/or Airport Layout Plan (ALP) approval or other FAA action to establish or remove~~al of~~ a displaced ~~runway~~ threshold on an existing runway, provided the action does not require establishing or relocating an approach light system that is not on airport property (see Paragraph 3-1.2b(9)) or an instrument landing system (see Paragraph 3-1.2b(8)). This CATEX does not apply to displaced thresholds that require runway extensions.*

Background

FAA standards note that a runway threshold should be placed where the full strength of the runway's pavement begins. A runway threshold designates the beginning of the runway available for landing. There may be situations where the threshold is not located at the beginning of the paved runway area and is therefore referred to as a displaced threshold. Most often this occurs to give arriving aircraft clearance over an obstruction while still allowing departing aircraft the maximum amount of runway available. This allows the approaching aircraft to fly over off-airport obstacles, while still providing the runway length needed to safely land the aircraft. Displaced thresholds do not affect departing aircraft. Departing aircraft can still use the entire runway, including any displaced threshold distance, during takeoff.

Actions under this proposed CATEX involve marking the runway. In the case of a new displaced threshold the runway is marked with white paint. An example of Displaced Threshold Markings is provided below in Exhibit II-12. Under the proposed modification, the CATEX would not apply in instances where the runway would be extended.

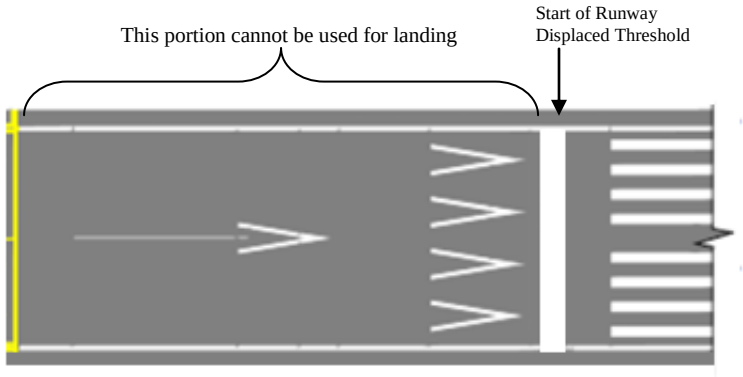


Exhibit II-12. Displaced Threshold Preceding a Runway

In circumstances where a displaced threshold is removed, the markings would be removed and new markings placed on the runway similar to Exhibit II-13.

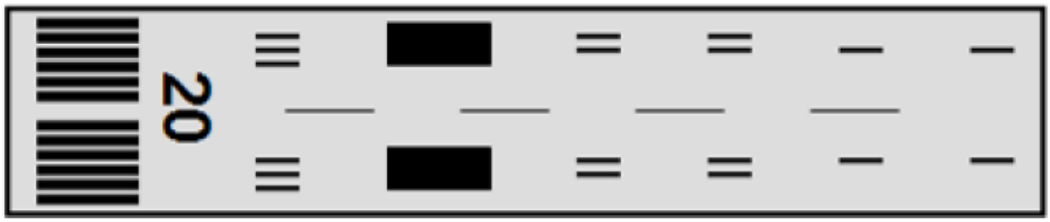


Exhibit II-13. Precision Approach Runway Markings

Potential Environmental Effects

Construction

There are minimal impacts with the removal of previous markings and/or painting of new markings of the pavement when a runway threshold is being established, modified, or removed. This proposed modified CATEX does not apply to displaced threshold establishment or removal when there are extensions of the runway, relocation of instrument landing systems, or approach lighting systems.

Operation

There are little to no impacts from the operation of airports with a new displaced threshold or an airport that has just removed a displaced threshold. A displaced threshold indicates where on the runway an airplane can touch-down to land. Establishing a displaced threshold does not change the number of operations at the airport or the type of aircraft that utilize the airport, thus it does not have the potential to result in significant air quality or noise impacts. Any impacts that may result from the shift in the threshold would be minimal.

FAA Experience

The following table, Exhibit II-14, provides a sampling of EAs that resulted in FONSIs with regards to establishing or relocating a displaced threshold. The table identifies the airport name, the magnitude of the displacement and the FONSI date. In addition, FAA has not experienced any unintended environmental impacts from the establishment or relocation of a displaced threshold.

Exhibit II-14. Environmental Assessments and FONSIs Addressing Displaced Thresholds

Airport Name	Action	FONSI Date
Greater Birmingham Airport, NY	Move threshold 201 feet	2010
Nome Airport, AK	Move threshold 600 feet	2012
Kotzebue Airport, AK	Move threshold 200 feet	2012
Oakland International Airport, CA	Move three thresholds (75 feet, 115 feet, 520 feet)	2012

Conclusion

The establishment or relocation of a runway threshold has minimal impacts. The action itself is just removing previous markings and/or painting new markings on existing pavement and does not involve changing the operations or type of aircraft at an existing airport. FAA has concluded that there is no potential for individual or cumulative impacts from these actions.

Proposed Revision to Paragraph 310e to Include Installing Engineered Material Arresting Systems (EMAS) and Runway Widening

Existing CATEX:

> *310e. Federal financial assistance, licensing, or Airport Layout Plan (ALP) approval for construction or repair of a runway that is existing or taxiway, apron, loading ramp, or safety runway area including extension, strengthening, reconstruction, resurfacing, marking, grooving, fillets and jet blast facilities, provided the action will not create environmental impacts outside of an airport or launch facility property.*

Proposed Revisions:

> *5-6.4e. Federal financial assistance, licensing, or Airport Layout Plan (ALP) approval for the following actions, provided the action would not result in significant erosion or sedimentation, and will not result in a significant noise increase over noise-sensitive areas or result in significant impacts on air quality. ~~provided the action will not create environmental impacts outside of an airport or launch facility property.~~*
>
> - *Construction, repair, reconstruction, resurfacing, extending, strengthening, or widening of a taxiway, apron, loading ramp, or runway safety area (RSA), including an RSA using Engineered Material Arresting System (EMAS); or*
> - *Reconstruction, resurfacing, extending, strengthening, or widening of an existing runway.*
>
> *This CATEX includes marking, grooving, fillets, and jet blast facilities associated with any of the above facilities.*

Background

The existing CATEX needs to be expanded to include a number of different actions regarding runway and airfield configurations. Below is a summary of the changes and the reasons these changes are being recommended.

Runway

Existing paragraph 310e does not include the widening of an existing runway. The revised CATEX broadens the original language to allow for the widening of a runway to allow an airport to serve larger aircraft or to enhance existing operations of such aircraft at the airport.

Runway Safety Area (RSA)

Existing paragraph 310e does not specifically include the use of EMAS in a runway safety area. Runway safety areas (RSAs) are comprised of the areas along the sides of a runway and the area beyond the runway's threshold. RSA dimensions are established in Advisory Circular 150/5300-13, A*irport Design* and are based on the Airport Reference Code (ARC). As prescribed in FAA Advisory Circular 150/5300-13, the RSA shall be:

- cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations;
- drained by grading or storm sewers to prevent water accumulation;

- capable, under dry conditions, of supporting snow removal equipment, Airport Rescue and Fire-fighting (ARFF) equipment, and the occasional passage of aircraft without causing structural damage to the aircraft; and
- free of objects, except for objects that need to be located in the RSA because of their function.

The RSA is typically 500 feet wide and extends 1,000 feet beyond each end of the runway. The RSA is intended to provide a measure of safety in the event of an aircraft's excursion from the runway by significantly reducing the extent of personal injury and aircraft damage during overruns, undershoots and veer-offs. Many airports were built before the 1,000-foot RSA length was adopted some 20 years ago, and it is not practicable to achieve the full standard RSA due to obstacles such as bodies of water, highways, railroads, and populated areas or severe drop-off of terrain. The use of EMAS can allow for a shorter RSA (normally between 180 and 600 feet) off the end of the runway allowing airports another alternative to meet RSA requirements. The length of the EMAS depends on the heaviest aircraft regularly using a runway, its landing gear configuration, and tire pressure (FAA, 2004c). Congressional mandate (Public Law 109-115) requires all applicable airports to improve their RSAs in accordance with FAA design standards by December 31, 2015.

The EMAS is composed of a bed of customized cellular cement material, designed to crush under the weight of an aircraft, thus providing predictable, controlled deceleration. Once stopped, EMAS's unique material allows passengers and crewmembers to exit the aircraft safely and for the aircraft to be removed from the arresting system easily, with minimal effects. Currently, EMAS is installed at 63 runway ends at 42 airports in the United States, with plans to install three EMAS systems at three additional U.S. airports. To date, Exhibit II-15 below shows the eight incidents where EMAS has safely stopped overrunning aircraft with a total of 235 crew and passengers aboard those flights.

Exhibit II-15. Incidents where EMAS has safely stopped overrunning aircraft

Date	Crew/Passengers	Event
May 1999	30	A Saab 340 commuter aircraft overran the runway at JFK
May 2003	3	A Gemini Cargo MD-11 overran the runway at JFK
January 2005	3	A Boeing 747 overran the runway at JFK
July 2006	5	A Mystere Falcon 900 overran the runway at Greenville Downtown Airport in South Carolina
July 2008	145	An Airbus A320 overran the runway at ORD
January 2010	34	A Bombardier CRJ-200 regional jet overran the runway at Yeager Airport in Charleston, WVA
October 2010	10	A G-4 Gulfstream overran the runway at Teterboro Airport in Teterboro, NJ
November 2011	5	A Cessna Citation II overran the runway at Key West International Airport in Key West, FL

In addition to these changes, the proposed revisions to paragraph 310e would correct two editorial errors. First the FAA is deleting the text "construction…of a runway that is existing" and changing this to "reconstruction" to clarify that this CATEX does not apply to new runways. This change does not modify the use of the CATEX and serves only to avoid confusion. In addition, "runway safety area" has replaced "safety runway area" because it is the correct term to describe this area.

Potential Environmental Effects

Runway

Construction

The reconstruction, widening, or lengthening of a runway generally occurs in areas that have been previously disturbed during construction of the original runway and through ongoing runway maintenance and therefore there is minimal physical environmental impacts. These previously disturbed areas are not likely to have sensitive resources due to previous airport development. Construction impacts relating to noise, solid waste, water quality and air quality are generally minimal. Airport sponsors are required to follow the FAA's Advisory Circular 150/56370-10F, *Standards for Specifying Construction of Airports*, to minimize impacts associated with construction. A primary concern with construction of runway extensions is the potential for sedimentation and erosion impacts. The proposed revisions would limit the CATEX to actions that would not have significant sedimentation or erosion impacts.

Operation

The primary concern with widening an existing runway is the ability for larger aircraft to utilize the airport. Larger aircraft may already be operating at an airport, so widening done to enhance the aircrafts' operation would not necessarily cause off-airport noise or air quality effects in such instances. However, depending on the type of aircraft and the number of operations, there may be a potential for an increase in noise and air emissions impacts. The proposed revisions would limit this CATEX to actions that would not result in a significant noise increase over noise-sensitive areas or significant impacts on air quality.

Noise

The FAA has detailed how to analyze noise impacts in the Noise Chapter of the Desk Reference. No noise analysis is needed for projects involving Design Group I and II airplanes (wingspan less than 79 feet) in Approach Categories A through D (landing speed less than 166 knots) operating at airports whose forecast operations in the period covered by the NEPA document do not exceed 90,000 annual propeller operations (247 average daily operations) or 700 jet operations (2 average daily operations). These numbers of general aviation propeller and jet operations result in DNL 60 dB contours of less than 1.1 square miles that extend no more than 12,500 feet from start of takeoff roll. The DNL 65 dB contour areas would be 0.5 square mile or less and extend no more than 10,000 feet from start of takeoff roll.

Noise screening can be used for airports that have an excess of 90,000 annual propeller operations or 700 jet operations to rule out the need for a more detailed noise analysis and provide documented support for a CATEX if screening shows no potential significant noise

impacts. If the screening tool identifies a potential for significant noise impacts, at least an EA is prepared.

Emissions

Increases in operational numbers or differences in aircraft type have the potential to increase emissions at an airport. For airport projects, Section 2.3.4 of the FAA *Air Quality Handbook* provides an equation based on aircraft operations and enplanements that defines a threshold above which NAAQS analysis should be considered. Even if this threshold is exceeded, use of the proposed revised CATEX would not automatically be precluded. The Desk Reference and the FAA *Air Quality Handbook* can be used to help determine if the project has the potential for significant impacts to air quality.

EMAS

Construction of a RSA with EMAS would be similar to the construction of existing RSAs. Although the material is different, EMAS is a composite of concrete and would not result in any additional impacts. The difference between an RSA with EMAS versus a standard RSAs is the construction footprint is smaller with EMAS. A primary concern with construction of runway safety areas is the potential for sedimentation and erosion impacts. The proposed revisions would limit the CATEX to actions that would not have significant sedimentation or erosion impacts.

EMAS are designed as passive systems which require minimal maintenance. Replacement or repair is considered if an aircraft has traversed the EMAS bed.

FAA Experience

Exhibit II-16 provides a sampling of EAs that resulted in FONSIs with regards to EMAS. The exhibit identifies the airport name, the EMAS action, and the FONSI date.

Exhibit II-16. Environmental Assessments and FONSIs Addressing EMAS

Airport Name	Action	FONSI Date
Greater Birmingham, NY	Replace EMAS on Runway 16	2010
Nome, AK	Install EMAS on Runway 10/28	2012
Oakland International Airport, CA	Install EMAS on Runway 9R	2012

Conclusion

The widening of a runway or the construction of EMAS for a RSA has minimal environmental impacts. The potential for significant impacts results when these changes involve the change in aircraft operations and fleet mix. The CATEX has been limited to those actions that would not result in significant noise and air emissions based on changes in aircraft operations and fleet mix. With these limitations, the FAA concludes that these types of actions do not individually or cumulatively have the potential for significant impacts.

Proposed Revision to Paragraph 310u to Include Installing or Approval of an Airport Layout Plan to Install On-Airport Aboveground Storage Tanks or Protected Underground Storage Tanks

Existing CATEX:

> *310u. Repair or replacement of underground storage tanks (UST's) and above ground storage tanks (AST's) at the same location. Closure, removal, or remediation of a fuel storage tank at a FAA facility in accordance with FAA Order 1050.15A, Fuel Storage Tanks at FAA Facilities and EPA regulations 40 CFR parts 280, 281, and 112.*

Proposed Text:

> *5-6.4u. Approval of an Airport Layout Plan (ALP) for installation of on-airport, aboveground storage tanks or underground storage tanks (USTs) or installation, ~~R~~repair, or replacement of ~~underground storage tanks (~~UST~~'~~s~~)~~ and aboveground storage tanks ~~(AST's)~~ at ~~the same location~~ FAA facilities. These actions must comply with FAA Order 1050.15, Fuel Storage Tanks at FAA Facilities, and EPA regulations, 40 CFR parts 112, 280, and 281, as applicable. This CATEX includes the ~~C~~closure, and removal~~, or remediation~~ of a fuel storage tank, and remediation of contaminants resulting from a fuel storage tank at an FAA facility or on an airport, provided those actions occur in accordance with the order and regulations noted above. The establishment of bulk fuel storage and associated distribution systems is not within the scope of this CATEX. Those actions are subject to Paragraph 3-1.2.b.(5) of this Order. (ATO, ARP)*

Background

ASTs

Above ground storage tanks (ASTs) are tanks or other containers that are aboveground, partially buried, bunkered, or in a subterranean vault. These can include floating fuel systems. The majority of ASTs on airports and at FAA facilities contain petroleum products (e.g., aircraft fuel, motor fuels, petroleum solvents, heating oil, lubricants, used oil). The EPA's Spill Prevention Control and Countermeasures (SPCC) regulations require owners or operators of certain aboveground oil storage facilities to prepare and comply with written, site-specific, spill prevention plans (see 40 CFR part 112) (EPA, 2001). State AST regulations may be more stringent or differ in other ways from the Federal requirements.

40 CFR part 112 requires that ASTs have a secondary containment area that contains spills and allows leaks to be more easily detected. The containment area surrounding the tank must hold 110 percent of the contents of the largest tank plus freeboard for precipitation. Secondary containment for ASTs must be impermeable to the materials being stored. In addition, 40 CFR part 112 requires that ASTs be routinely monitored to ensure they are not leaking, including tank foundations, connections, coatings, tank walls, and the piping system.

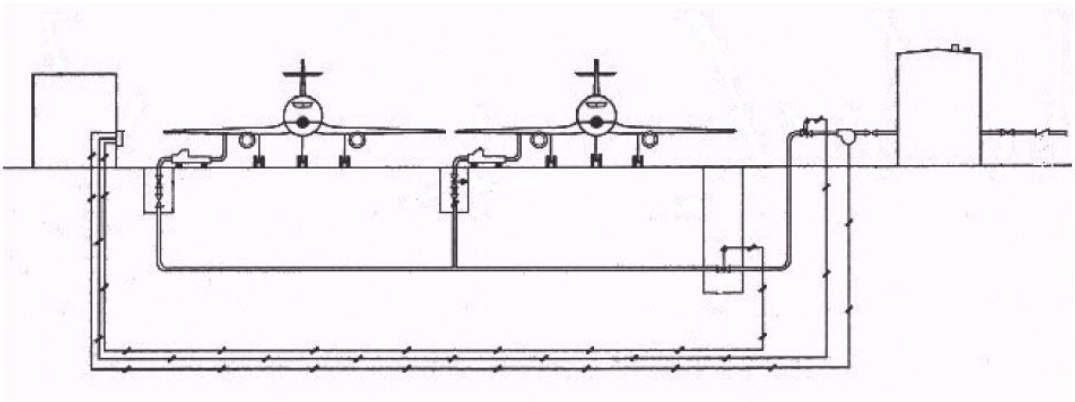
USTs

An underground storage tank (UST) system is a tank and any underground piping connected to the tank that has at least 10 percent of its combined volume underground. Most underground

storage tanks are primarily regulated by states and territories. However, Federal regulations apply to tanks and piping for petroleum and certain hazardous substances. Federal regulations require that USTs be protected from spills, overfills, and corrosion.

Installation of ASTs or USTs at an airport or FAA facility may be needed for various reasons. The most frequent reason is to safely store fuel to operate aircraft, ground support vehicles, and equipment for airport maintenance, snow removal, or to heat and cool airport facilities.

The proposed revised CATEX would only apply to storage tank installation and would not include establishment of any bulk fuel storage and associated distribution systems such as an aircraft fuel hydrant system (shown below in Exhibit II-17). Where a distribution system has already been constructed, however, replacement of storage tanks would be covered by the revised CATEX. New tanks would be limited to those that do not establish distribution systems, similar to those associated with bulk fuel storage. The CATEX language specifically states "the establishment of bulk fuel storage with associated distribution systems is not within the scope of this CATEX."



Typical Fixed Aircraft Fuel Hydrant System

Exhibit II-17. Bulk Fuel Storage and Associated Distribution System

Potential Environmental Effects

Installation

Areas where storage tanks would be installed on FAA facilities or airports are typically previously disturbed areas that are not likely to have sensitive resources. Installations must comply with EPA regulations at 40 CFR part 112. This part of the CFR, commonly known as the Spill Prevention Control and Countermeasures (SPCC) regulations, applies to ASTs. In addition, USTs must meet the requirements of part 280, unless the UST is used solely to fuel emergency power generators (see 40 CFR § 280.10(d)). Part 281 pertains to state programs authorizing the installation of USTs that an airport sponsor or some other entity may place on an airport. The FAA must approve any changes to an ALP that involve ASTs or USTs. The proposed CATEX modification by its terms excludes any AST or UST installation that is not in compliance with those regulations as well as FAA Order 1050.15A, *Fuel Storage Tanks at FAA Facilities*, which pertains to FAA-owned ASTs and USTs. FAA, airport sponsor, and environmental consultant observations and experience have shown that compliance with the

above regulations and order minimizes the adverse environmental impacts associated with UST or AST installation, repair, replacement, and use and does not result in significant impacts.

FAA, airport sponsor, and environmental consultant observations have shown that installation, repair, and replacement of ASTs and USTs on airports do not normally cause significant impacts on environmental resources. Those observations have shown any unavoidable disturbance of sensitive resources would have typically occurred when the airport was built. Previously disturbed developed or undeveloped areas where an AST or UST would typically be located are not likely to have sensitive resources due to earlier airport development.

Operation

The primary concern with storage tanks is the potential for leaks to go unnoticed. Federal regulations and state regulations are in place to limit the potential for these leaks. Compliance with the SPCC regulations limits the potential for leaks in ASTs. 40 CFR part 280 provides regulations for USTs which include design, construction, general operation, monitoring, and reporting requirements to prevent the potential of leaks that would cause environmental impacts. In addition, both ASTs and USTs may be regulated by the state.

FAA, airport sponsors, and environmental consultant observations and experience have shown that compliance with the above regulations and order minimizes the potential for adverse environmental impacts associated with UST or AST installation, modification and use.

Other Agencies' CATEXs and Experience

Other Federal Agencies have experience with ASTs and USTS as described below. Some agencies have established CATEXs or used existing CATEXs to allow for the removal or installation of ASTs and USTs.

Defense Logistics Administration CATEX

Removal of an underground storage tank including its associated piping and underlying containment systems in compliance with RCRA, subtitle I; 40 CFR part 265, subpart J; and 40 CFR 280, subparts F and G, and similar provisions of state law and regulation if such action would reduce the likelihood of spillage, leakage, or spread of, or direct contact with contamination. (DLA Form 1664 required)

Environmental Protection Agency CATEX

The action involves routine facility maintenance, repair, and grounds keeping; minor rehabilitation, restoration, renovation, or revitalization of existing facilities; functional replacement of equipment; acquisition and installation of equipment or construction of new minor ancillary facilities adjacent to or on the same property as existing facilities. CATEX was used for the upgrade and installation of the UPS and emergency generator systems at Region 2 NJ Facility.

Department of Energy

DOE used a documented CATEX using their CATEX B3.6 *"siting, construction (or modification) operation of facilities" to* use Federal funds to install an aboveground storage tank within existing infrastructure at Newport, VT location. The CATEX stated that construction will be within or contiguous to an already developed areas.

Conclusions

Existing regulations, professional FAA observations and experience, and the limitations placed on the proposed modified CATEX would serve to prevent any significant environmental impact from actions covered by the CATEX. FAA has determined these actions would not result in individual or cumulative significant impacts.

List of Preparers

FAA includes the following information as recommended in Section III.B.3 of CEQ's Guidance on Categorical Exclusions.

Edward L. Melisky. FAA. Environmental Protection Specialist. 36 years' experience in analyzing the environmental effects of transportation projects (bridges and airports) and power plants (fossil-fueled and hydropower). M.S., Fisheries Biology, Frostburg State University, 1980. Wrote FAA Order 5050.4B, *NEPA Implementing Instructions for Airport Actions* and the *Desk Reference for Airport Actions*. Developed the list of new and revised categorical exclusions and wrote the categorical exclusion justifications, in consultation with the other preparers, for FAA's Office of Airports.

Stephen B. Barrett. Harris Miller Miller & Hanson, Inc. Director of Clean Energy. 20 years of experience in environmental and regulatory project management and consulting. M.A., Environmental Sciences, University of Virginia, 1995. Provided information on solar power issues.

David B. Kessler. FAA. Environmental Protection Specialist. 21 years' experience in analyzing the environmental effects of airport construction and operation. M.A., Physical Geography, University of Colorado at Boulder, 1985. Provided research and expertise on the closure of runways and their use as taxiways.

Dr. Jake A. Plante. FAA. Natural Resource Specialist. Ph.D, Education, University of Massachusetts, 1977; M.Ed., University of Massachusetts, 1975. 26 years' experience in analyzing aviation-related air quality and noise impacts and developing models to examine those impacts. Developed the FAA's Presumed to Conform List and FAA's *Procedures for Evaluating the Potential Noise Impacts of Airport Improvement Projects on National Parks and Other Sensitive Park Environments*. Developed and Managed the Voluntary Airports Low Emissions Program. Provided research and expertise for categorical exclusions addressing solar and wind energy and the substantial expansion of on-airport buildings.

References

14 CFR, Part 77. *Safe and Efficient Use, and Preservation of the Navigable Airspace*. http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&rgn=div5&view=text&node=14:2.0.1.2.9&idno=14

40 CFR, Part 112, *Oil Pollution Prevention*. http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title40/40cfr112_main_02.tpl

40 CFR, Part 280, *Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (UST)*. http://www.epa.gov/oust/fedlaws/cfr.htm

40 CFR, Part 281, *Approval of State Underground Storage Tank Programs*. http://www.epa.gov/oust/fedlaws/cfr.htm

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Section III: FAA Air Traffic Mission Support Services (ATO AJV-12)

Proposed New Categorical Exclusion ATO-AJV-12 #1: Special Use Airspace

Proposed Text:

5-6.5f. Actions to increase the altitude of special use airspace.

Background

The FAA proposes to add this CATEX to FAA Order 1050.1 to allow modification by increasing the altitude of Special Use Airspace (SUA) areas that have previously been the subject of an environmental assessment (EA) or environmental impact statement (EIS). Raising the altitude for these areas does not normally result in individually or cumulatively significant environmental effects.

Special Use Airspace

According to FAA Order 7400.2H *Procedures for Handling Airspace Matters*, the primary purpose of the SUA program is to establish/designate airspace in the interest of National Defense, security, and/or welfare. SUA areas that are charted identify to other airspace users where these activities occur. SUA is airspace of defined dimensions wherein activities must be confined because of their nature, or wherein limitations may be imposed upon aircraft operations that are not a part of those activities. The types of SUA areas are Alert Areas,[11] Warning Areas,[12] Controlled Firing Areas (CFA),[13] National Security Areas (NSA),[14] Military Operations Areas (MOA),[15] Prohibited Areas,[16] and Restricted Areas.[17] There are two categories of SUA: regulatory (rulemaking) and other than regulatory (nonrulemaking). Prohibited Areas and Restricted Areas are rulemaking actions that are implemented by a formal amendment to 14 CFR part 73, *Special Use Airspace*. Alert Areas, Warning Areas, CFAs, NSAs, and MOAs, are nonrulemaking actions.

According to FAA Order 1050.1E, Alert Areas and Warning Areas are classified as Advisory Actions and are not considered major Federal actions under NEPA (see paragraph 301c). CFAs are categorically excluded (see paragraph 311e). NSAs, MOAs, Prohibited Areas, and Restricted Areas, all require, at a minimum, an EA (see paragraph 401p).

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11 **Alert Areas** – Airspace areas designated to inform nonparticipating pilots of areas that contain a high volume of pilot training operations, or an unusual type of aeronautical activity, that they might not otherwise expect to encounter. Pilots are advised to be particularly alert when flying in these areas.

12 **Warning Areas** - Airspace areas of defined dimensions, (extending from 3 NM outward from the coast of the United States), designated to contain activity that may be hazardous to nonparticipating aircraft

13 **CFAs** – Airspace areas designated as means to accommodate, without impact to aviation, certain hazardous activities that can be immediately suspended if a nonparticipating aircraft approaches the area

14 **NSAs** - Airspace areas of defined vertical and lateral dimensions established at locations where there is a requirement for increased security of ground facilities. Pilots are requested to voluntarily avoid flying through an NSA.

15 **MOAs** - Airspace areas designated outside of Class A airspace, to separate or segregate certain nonhazardous military activities from IFR traffic and to identify for VFR traffic where these activities are conducted.

16 **Prohibited Areas** – Airspace areas established when necessary to prohibit flight over an area on the surface in the interest of national security and welfare.

17 **Restricted Areas** – Airspace areas established when determined necessary to confine or segregate activities considered hazardous to nonparticipating aircraft

Environmental review of the proposed CATEX: Raising the altitude of SUA moves the aircraft operations in the SUA farther from the ground and normally does not change the nature or extent of those operations. Therefore, the actions covered by the proposed CATEX normally do not cause adverse environmental impacts.

- Of the impact categories included in Appendix A of FAA Order 1050.1E, the primary categories of relevance to the actions covered by the proposed CATEX under normal circumstances are noise and air quality. These are addressed below.

Noise

The farther/higher an aircraft is from the ground, the less the noise heard on the ground. Below is a single event noise graph from the Integrated Noise Model (INM) data base for an F-16 aircraft noise curve. As can be seen in the graph, the farther/higher the aircraft is from the ground level point of reference, the lower the noise becomes. When an aircraft is at 200 feet above the ground, the single event noise level at ground level is 113 decibels and at 25,000 feet above the ground, the single event noise level at ground level is 63 decibels. This reduction in noise as the altitude/distance increases above the ground occurs for all aircraft whether civilian or military. Therefore, under normal circumstances the actions covered by the proposed CATEX would cause a reduction in the noise heard at ground level and would not cause a significant noise impact individually or cumulatively.

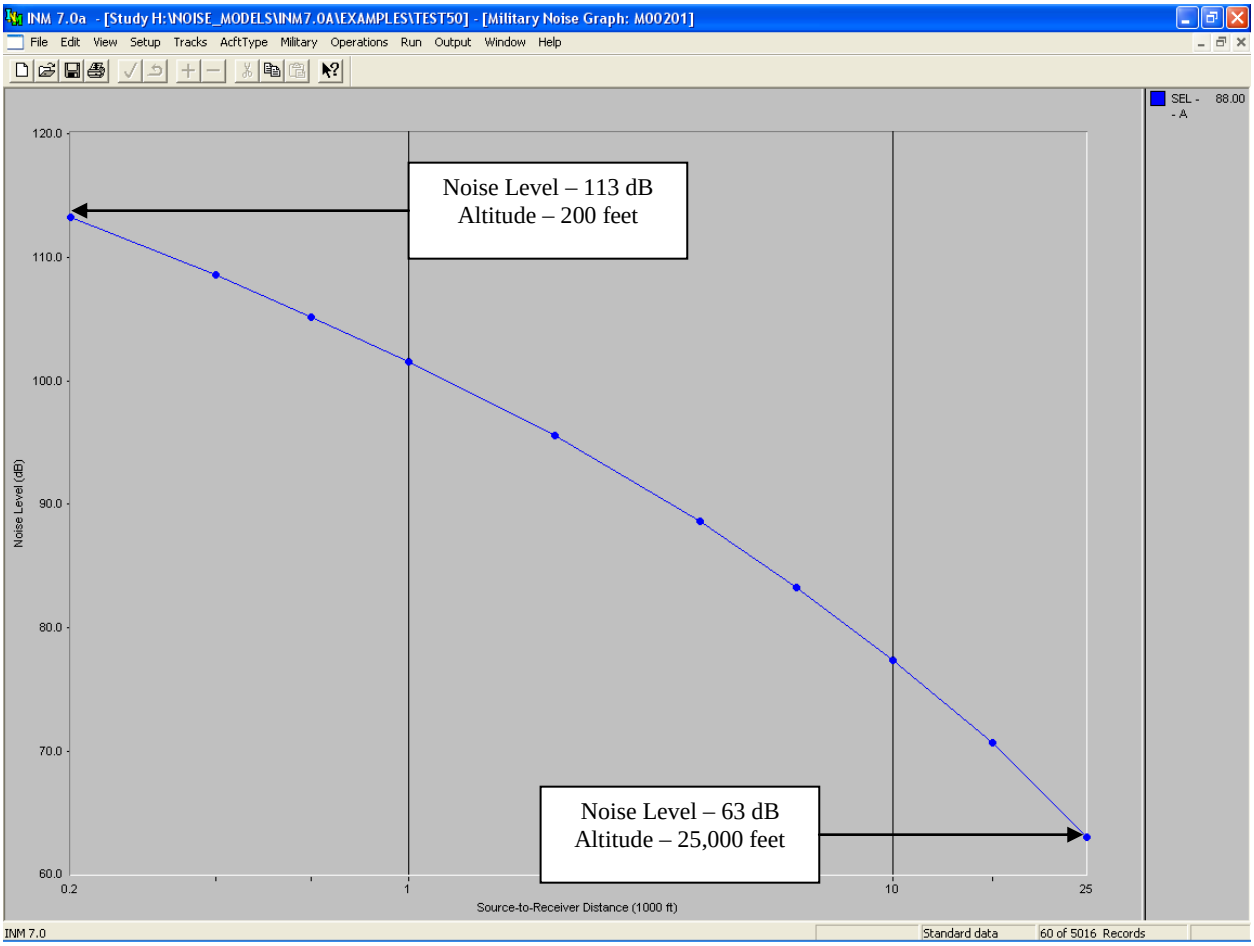

Exhibit III-1. INM Database Single Event Noise Graph for an F-16 Aircraft Noise Curve

The data depicted in the graph comes directly from the INM, which is one of the tools designated in FAA Order 1050.1E to be used for detailed noise analyses (see FAA Order 1050.1E, Appendix A, Section 14.2). Its methodology and data base are the foundations for all other FAA-approved noise tools.

Air Quality

EPA has determined that if there is no mixing height specified in an applicable State or Tribal Implementation Plan, then 3,000 feet above ground level is considered the default mixing height for aircraft emissions (see 75 *Federal Register* 64 (April 5, 2010); 40 CFR parts 51 and 93; and Section 93.153(2)(xxii)). Raising the altitude of SUA does not cause an increase in air emissions, and in fact reduces the impact of air emissions on the ground. Therefore, under normal circumstances the actions covered by the proposed CATEX do not have adverse air quality impacts.

Conclusion

Based on the foregoing, the FAA has determined that the actions covered by the proposed CATEX do not normally have the potential to individually or cumulatively have a significant effect on the human environment.

List of Preparers

FAA includes the following information as recommended in Section III.B.3 of CEQ's Guidance on Categorical Exclusions:

Donna G. Warren. FAA. Acting Manager, Environmental Programs, Mission Support Services. Ms. Warren has worked for the FAA for over thirty years. She began her environmental career in FAA's Office of Environment Energy (AEE) over 25 years ago and has over 1,000 hours of formal environmental, computer, and management training. While in AEE, she assisted in the development of the Integrated Noise Model (INM) and served as the program manager for development of the Heliport Noise Model (HNM) and the Area Equivalent Method (AEM). She currently serves as Acting Manager for Environmental Programs in the Air Traffic Organization (ATO). Additionally, she serves as the Environmental Tools Program Manager leading the development of the Noise Integrated Routing System (NIRS) and NIRS Screening Tool (NST). These two tools are the ATO standards for assessing and evaluating the noise impact of air traffic procedural and airspace design actions. She is also the ATO representative on several internal and external environmental working groups.

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Section IV: FAA Proposed Clarification Revisions to Existing CATEXs

The following CATEXs have been changed to clarify specific types of actions are included in the CATEX or changes have been made to update the information within the CATEX. These are minor changes to the CATEXs and therefore did not need a separate CATEX justification package, but the reasoning behind these changes is included below.

5-6.2c (formerly 308c)

Issuance of certificates such as **the following**: (1) new, amended, or supplemental aircraft types that meet environmental regulations; (2) new, amended, or supplemental engine types that meet emission regulations; (3) new, amended, or supplemental engine types that have been excluded by the EPA (**see** 14 CFR **§** 34.7, ***Exemptions***); (4) medical, airmen, export, manned free balloon type, glider type, propeller type, supplemental type certificates not affecting noise, emission, or waste; (5) mechanic schools, agricultural aircraft operations, repair stations, and other air agency ratings; **and (6) operating certificates**. (~~AFS, AIR~~ **ATO, AVS**)

Reasoning

Operating certificates was added to the list of certificates since it was not spelled out but is equivalent to the other certificates already listed. This is just clarifying that operating certificates are covered under this CATEX. There are no environmental impacts associated with issuance of an operating certificate.

5-6.3h (formerly 309h)

Acquisition of ~~security~~ equipment required ~~by rule or regulation~~ for the safety or security of personnel and property on the airport or **commercial space** launch ~~facility~~ **site** ~~(14 CFR part 107, Airport Security)~~, **including** safety equipment required by rule or regulation for certification of an airport (**see** 14 CFR part 139, *Certification and Operation: Land Airports Serving Certain Air Carriers*), or licensing **the operation** of a **commercial space** launch ~~facility~~ **site** (**see 14 CFR part 420, *License to Operate a Launch Site*)** ~~or~~ **and acquisition of** snow removal equipment. (A~~P~~**R**P, AST)

Reasoning

14 CFR part 107, Airport Security provision has been cancelled. However, these types of activities are still funded and the CATEX is retained for these activities.

5-6.4f (formerly 310f)

Federal financial assistance, licensing, Airport Layout Plan (ALP) approval, or FAA construction or limited expansion of accessory on-site structures, including storage buildings, garages, **hangars, t-hangars,** small parking areas, signs, fences, and other essentially similar minor development items. (ATO, A~~P~~**R**P, AST)

Reasoning

Adding the hangars and t-hangars to the list of included on-site structures helps to clarify that they are no different than the other accessory on-site structures already listed. The preamble to 1050.1E did specify that t-hangers were included under 310h, although they were not specifically added to the CATEX language. Hangars and t-hangars are simply structures to house airplanes similar to garages for automobiles. There are no additional environmental impacts from the

construction of hangers and t-hangers that would differentiate them from the other structures on the list.

5-6.4h (formerly 310h)

Federal financial assistance, licensing, or **Airport Layout Plan (**ALP**)** approval for construction or expansion of facilities~~,~~ ~~—~~such as terminal passenger handling and parking facilities or cargo buildings, **or facilities for non-aeronautical uses** at existing airports and **commercial space** launch ~~facilities~~ **sites** ~~—~~that do not substantially expand those facilities **(see FAA's presumed to conform list (72 *Federal Register* 41565 (July 30, 2007))**. (All)

Reasoning

There has been confusion regarding whether this CATEX covers facilities that are not intended for aeronautical use. The proposed revisions were made to clarify that such facilities are covered. There are no additional or different environmental impacts associated with the construction or expansion of non-aeronautical facilities when compared to aeronautical facilities. There has also been confusion regarding what "substantially expand" means. This term was included to ensure that the facilities that were built did not have the potential to cause significant air quality impacts. Additional language has been added to clarify what "substantially expand" means.

5-6.5c (formerly 311c)

Actions to return all or part of special use airspace (SUA) to the National Airspace System (NAS) ~~(~~such as revocation of airspace, ~~or~~ a decrease in dimensions, or **a reduction in** times of use~~)~~ **(e.g., from continuous to intermittent, or use by a Notice to Airmen (NOTAM)**). (ATO)

Reasoning

The phrase "a reduction in" before "times of use" was to clarify that it is a decrease in times of use. Some individuals were confused about how to apply this CATEX so examples were also added.

5-6.5g (formerly 311g)

Establishment of Global Positioning System (GPS), Flight Management System (FMS), ~~Radio~~ **Area** Navigation**/Required Navigation Performance** ~~System~~ (RNAV**/RNP**), or essentially similar systems~~,~~ that use overlay of existing ~~procedures~~ **flight tracks**. **For these types of actions, the Noise Integrated Routing System (NIRS) Noise Screening Tool (NST) or other FAA-approved environmental screening methodology should be applied.** (ATO, A~~F~~VS, ~~AVN, AST~~)

Reasoning

This CATEX was modified to incorporate new terminology. Radio Navigation Systems are now referred to as Area Navigation (RNAV) and a new technology referred to as Required Navigation Performance System (RNP) has been added. The word "procedures" has been changed to "flight tracks" to reflect current nomenclature. This CATEX will also suggest the use of a Noise Screening tool or other noise environmental screening methodology to ensure there are no significant noise impacts.

5-6.5h (formerly 311h)

Establishment **or modification** of helicopter routes that channel helicopter activity over major thoroughfares. (ATO, A~~F~~VS~~, AVN~~)

Reasoning

The former 311h allowed for the establishment of helicopter routes over major thoroughfares but did not specifically mention modification of these routes. Modification of these routes does not involve different or additional environmental impacts than establishment of the routes.

5-6.6b (formerly 312b)

Authorizations and waivers for infrequent[18] or one-time actions, such as an airshow or aviation-related exposition~~,~~ **(**to include an aerobatic practice **area containing one aerobatic practice** box or aerobatic contest box**)**~~, per FAA Order 8700.1, Chapter 48, and~~ or parachuting or skydiving events, that may result in some temporary impacts that revert back to original conditions upon action completion. (ATO, A~~F~~VS)

Reasoning

To address confusion in the application of this CATEX, it has been modified to clarify that it only applies to an aerobatic practice area that contains one aerobatic practice box or aerobatic contest box. This modification is consistent with a guidance memo drafted for the use of this CATEX.

[18] For low-weight pistons, mid-weight pistons, high-weight pistons and high weight radials, "infrequent" is defined as 18,000 or fewer annual operations. For aircraft that are categorized as mid-power jets and high-power radials ("warbirds"), "infrequent" is defined as 1,800 or fewer annual operations. Finally, for high-power jets, "infrequent" is defined as 300 or fewer annual operations. In circumstance in which an aerobatic practice box or the aerobatic contest box will be used by more than one aircraft group (i.e., mixed use) please see in the FAA Order 1050.1 Guidance Memo titled, "Clarification of FAA Order 1050.1 CATEX 312b for Aerobatic Actions", available at http://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/guidance/media/Catex-312b_Aerobatic_Actions.pdf.

Section V: Proposed Changes to FAA Categorical Exclusions

Global Changes

- Throughout changes were made to change APP to ARP; AEE to APL; and AFS to AVS
- References throughout to 303d have been deleted and replaced with an *
- "Launch facility" was changed to "commercial space launch site"

Proposed CATEX	Current CATEX	Change	Text with Changes
5-6.1a	307a	No Changes	
5-6.1b	307b	• Add "(Note:" • Add "**-** " to long term • Change categorical exclusion to CATEX • Change any to and • Update cross-reference	Release of an airport sponsor from Federal obligations incurred when the sponsor accepted: (1) an Airport Improvement Grant; or (2) Federal surplus property for airport purposes **(NOTE:** FAA consent to long-term leases (i.e., those exceeding 20 years) converting airport-dedicated property to non-aeronautical, revenue-producing purposes (e.g., convenience concessions such as food or personal services) has the same effect as a release and is part of this ~~categorical exclusion~~ **CATEX** provided that the proposed ~~any~~ **and** reasonably foreseeable uses of the property do not trigger extraordinary circumstances as described in **P**aragraph ~~304~~**5-2, Extraordinary Circumstances).** (ARP, AST)
5-6.1c	307c	• Change "A" to "An"	A**n** FAA action responding to a request for conveying Federally-owned land, including surplus Federal property and/or joint-use facilities, provided the proposed use of the conveyed land is either unchanged or for a use that is categorically excluded. (ARP, ATO)
5-6.1d	307d	• Capitalize "Airport Layout Plans" and add s to "(ALPs)" • Delete "to depict projects" as unnecessary • Delete parenthetical (NCP)	Federal funding and approval of amendments to **A**irport **L**ayout **P**lans (ALP**s**) ~~to depict projects~~ to carry out FAA-approved noise compatibility programs ~~(NCP)~~ pursuant to 14 CFR part 150. (ARP)
5-6.1e	307e	No Changes	
5-6.1f	307f	No Changes	
5-6.1g	307g	• Change "which" to "that"	Issuance of airport policy and planning documents including the National Plan of Integrated Airport Systems (NPIAS), Airport Improvement Program (AIP) priority system, and advisory circulars on planning, design, and development ~~**which**~~ **that** are issued as administrative and technical guidance. (ARP, AST)
5-6.1h	307h	• Change second "Passenger Facility Charges" to "PFCs"	Approval of an airport sponsor's request solely to impose Passenger Facility Charges (PFC) or approval to impose and use ~~Passenger Facility~~

Proposed CATEX	Current CATEX	Change	Text with Changes
			~~Charges~~ **PFCs** for planning studies. (ARP)
5-6.1i	307i	• Delete "including,"	Actions that are tentative, conditional, and clearly taken as a preliminary action to establish eligibility under an FAA program~~, including,~~ for example, Airport Improvement Program (AIP) actions that are tentative and conditional and clearly taken as a preliminary action to establish an airport sponsor's eligibility under the AIP. (All)
5-6.1j	307j	No Changes	
5-6.1k	307k	• Remove "," after "governments"	Agreements with foreign governments, foreign civil aviation authorities, international organizations, or U.S. Government departments calling for cooperative activities or the provision of technical assistance, advice, equipment, or services to those parties, and the implementation of such agreements; negotiations and agreements to establish and define bilateral aviation safety relationships with foreign governments~~,~~ and the implementation of such agreements; attendance at international conferences and the meetings of international organizations, including participation in votes and other similar actions.
5-6.1l	307l	• Delete "(DER)" • Capitalize "Section" • Add "§§" before citation	All delegations of authority to designated examiners, designated engineering representatives ~~(DER)~~, or airmen under **S**ection 314 of the FAA Act (49 U.S.C. **§§** 44702(d) and 45303). (ATO, AVS)
5-6.1m	307m	No Changes	
5-6.1n	307n	• Add "s" after NCP • Add "§§" • Move "under 14 CFR part 150" to the end. • Replace "Noise compatibility programs" with "NCPs"	Issuance of grants to prepare noise exposure maps and noise compatibility programs (NCP**s**) under 49 U.S.C. **§§** 47503(2) and 47504**,** and~~, under 14 CFR part 150,~~ FAA determinations to accept noise exposure maps and approve ~~noise compatibility programs~~ **NCPs under 14 CFR part 150**.
5-6.1o	307o	• Delete "planning" • Change "which" to "that"	Issuance of ~~planning~~ grants ~~which~~ **that** do not imply a project commitment, such as airport planning grants**,** and grants to states participating in the state block grant program.
5-6.1p	307p	No Changes	
5-6.1q	307q	No Changes	
5-6.1r	307r	No Changes	
5-6.1s	307s	No Changes	
5-6.1t	307t	No Changes	
5-6.1u	307u	• Add the title to 14 CFR part 161 "Notice and Approval of Airport	Approval under 14 CFR part 161, ***Notice and Approval of Airport Noise and Access Restrictions,***

Proposed CATEX	Current CATEX	Change	Text with Changes
		Noise and Access Restrictions"	of a restriction on the operations of Stage 3 aircraft that does not have the potential to significantly increase noise at the airport submitting the restriction proposal or at other airports to which restricted aircraft may divert. (ARP)
5-6.2a	308a	• Change title from "Noise Certification" to "Noise Standards" • Add "Type" after "Aircraft" • Add "," after "Certification" • Add "§"	Approvals and findings pursuant to 14 CFR part 36, *Noise ~~Certification~~ **Standards:** Aircraft **Type** and Airworthiness Certification,* and acoustical change provisions under 14 CFR **§** 21.93. (ATO, AVS, APL)
5-6.2b	308b	• Move "aircraft, launch vehicles and engines" to after "alterations." • Add "of" in front of aircraft • Add "commercial space" in front of "launch vehicles"	Approvals of ~~aircraft, launch vehicles, and engine~~ repairs, parts, and alterations **of aircraft, commercial space launch vehicles, and engines** not affecting noise, emissions, or wastes. (All)
5-6.2c	308c	• Add "the following" after "such as" • Add "see" in front of "14 CFR" • Add "§" • Add title "Exemptions" to "34.7" • Add "operating certificates" to clarify these are covered (see above in clarifications)	Issuance of certificates such as **the following**: (1) new, amended, or supplemental aircraft types that meet environmental regulations; (2) new, amended, or supplemental engine types that meet emission regulations; (3) new, amended, or supplemental engine types that have been excluded by the EPA (**see** 14 CFR **§** 34.7, ***Exemptions***); (4) medical, airmen, export, manned free balloon type, glider type, propeller type, supplemental type certificates not affecting noise, emission, or waste; ~~and~~ (5) mechanic schools, agricultural aircraft operations, repair stations, and other air agency ratings~~.~~**;** **and (6) operating certificates**. (ATO, AVS)
5-6.2d	308d	No changes	
5-6.2e	308e	• Add "see" in front of "14 CFR part 139"	Issuance of certificates and related actions under the Airport Certification Program (**see** 14 CFR part 139).
5-6.2f	308f	• Remove "" from ADs	Issuance of Airworthiness Directives (AD~~'~~s) to ensure aircraft safety.
5-6.3a	309a	• Add "the following facilities" after "Construction of" • Move "Remote Communications Outlet (RCO), Remote Transmitter/Receiver (RT/R), or Remote Center-Air Ground Communication Facility (RCAG), or essentially similar facilities or equipment identified in, and designed and constructed in accordance with "FAA Order	Construction of ~~Remote Communications Outlet (RCO), Remote Transmitter/Receiver (RT/R), or Remote Center-Air Ground Communication Facility (RCAG), or essentially similar facilities or equipment identified in, and designed and constructed in accordance with, FAA Order 6580.3, "Remote Communications Facilities Installation Standards Handbook"~~ **the following facilities** ~~These facilities must be~~ on designated airport property or **commercial space** launch ~~facility~~ **sites**, ~~or~~ co-located with other FAA facilities, ~~or~~ co-

Proposed CATEX	Current CATEX	Change	Text with Changes
		6580.3, The Remote Communications Facilities Installation Standards Handbook" to after "similar facilities or equipment". • Revise citation of FAA Order 6580.3 from quotations to italics • Delete "these facilities must be" • Change "launch facility" to "commercial space sites" • Remove "or" after "facility" and "facilities" • Change "ft" to "feet" and replace "X" with "by"	located at a location currently used for similar facilities or equipment, or replacement with essentially similar facilities or equipment**: Remote Communications Outlet (RCO), Remote Transmitter/Receiver (RT/R), or Remote Center-Air Ground Communication Facility (RCAG), or essentially similar facilities or equipment identified in, and designed and constructed in accordance with FAA Order 6580.3, "*The Remote Communications Facilities Installation Standards Handbook*".** These facilities are typically located within a 150 **feet by** ~~ft X~~ 150 ~~ft~~ **feet** parcel~~,~~ with antenna towers reaching approximately 40 ~~ft~~ **feet** in height. (ATO)
5-6.3b	309b	• Add "of any of the following" after "relocation" • Revise citation of FAA Order 6850.2 from quotations to italics • Add "," after FAA Order 6850.2, *Visual Guidance Lighting Systems*	Establishment, installation, upgrade, or relocation **of any of the following** on designated airport or FAA property: airfield or approach lighting systems, visual approach aids, beacons, and electrical distribution systems as described in FAA Order 6850.2, ~~"~~***Visual Guidance Lighting Systems***~~"~~, and other related facilities. (ATO, ARP)
5-6.3c	309c	• Define "ALP" as "Airport Layout Plan" • Change "launch facility" to "commercial space launch site" • Add "and" after "RVR" • Change "provides" to "provide" • Remove "" from VOR's • Update cross reference to "Paragraph 3-1.2b(8)" • Add "," and remove "or" after "conversion of VOR to VORTAC" • Revise citation of FAA Order 6820.10 from quotations to italics • Change "TACAN" to "VORTAC" • Change "ft X ft" to "feet by feet"	Federal financial assistance for, or **Airport Layout Plan (**ALP**)** approval of, or FAA installation or upgrade of facilities and equipment, other than radars, on designated airport or FAA property or **commercial space** launch **sites** ~~facility~~. Facilities and equipment means FAA communications, navigation, surveillance, and weather systems. Weather systems include hygrothermometers, Automated Weather Observing System (AWOS), Automatic Surface Observation System (ASOS), Stand Alone Weather Sensors (SAWS), Runway Visual Range (RVR), **and** other essentially similar facilities and equipment that provide~~s~~ for modernization or enhancement of the service provided by these facilities. Navigational aids include Very High Frequency Omnidirectional Range (VOR), VOR Test facility (VOT), co-located VOR~~'~~s and Tactical Aircraft Control and Navigation (TACAN) (VORTAC), Low Power TACAN, Instrument Landing System (ILS) equipment or components of ILS equipment (establishment or relocation of an ILS is not included; an EA is normally required; see ~~paragraph 401i~~ **Paragraph 3-1.2.b(8))**, Wide Area Augmentation System (WAAS), Local Area Augmentation System (LAAS), other essentially similar facilities and equipment, and equipment that provides for modernization or enhancement of the service provided by that facility, such as conversion of VOR to VORTAC~~, or~~ conversion to Doppler

Proposed CATEX	Current CATEX	Change	Text with Changes
			VOR (DVOR), or conversion of ILS to category II or III standards. FAA Order 6820.10, ~~"~~***VOR, VOR/DME and*** ~~TACAN~~ ***VORTAC Siting Criteria***~~"~~ governs the installation of VOR/VOT/VORTAC-type equipment. These facilities are typically located within a 150 ~~ft X~~**feet by** 150 ~~ft~~ **feet** parcel, with a total structure height reaching approximately 50 ~~ft~~ **feet** in height. (ATO, ARP, AST)
5-6.3d	309d	• Define "ALP" as "Airport Layout Plan" • Remove "," after equipment • Change "launch facility" to "commercial space launch sites"	Federal financial assistance for, or **Airport Layout Plan (**ALP**)** approval of, or FAA installation, repair, replacement, relocation, or upgrade of radar facilities and equipment~~,~~ on designated airport or FAA property or **commercial space** launch ~~facility~~ **sites**, that conform to the current American National Standards Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE) guidelines for maximum permissible exposure to electromagnetic fields. Radar facilities and equipment include Terminal Doppler Weather Radar (TDWR), Next Generation Weather Radar (NEXRAD), Precision Runway Monitor (PRM), Airport Surface Detection Equipment (ASDE), Air Route Surveillance Radar (ARSR), Airport Surveillance Radar (ASR), Air Traffic Control Beacon Interrogator (ATCBI), and other essentially similar facilities and equipment. In addition, this includes equipment that provides for modernization or enhancement of the service provided by these facilities, such as Radar Bright Display Equipment (RBDE) with Plan View Displays (PVD), Direct Access Radar Channel (DARC), adding a beacon system onto existing radar, and calibration equipment. (ATO, ARP)
5-6.3e	309e	• Define airport traffic control towers (ATCTs) after first use • Replace second use of airport traffic control towers with ATCTs	Federal financial assistance for, Airport Layout Plan (ALP) approval of, or FAA installation, repair, relocation, replacement, removal, or upgrade of minor miscellaneous items such as Low Level Wind Shear Alert System (LLWAS), wind indicators, wind measuring devices, landing directional equipment, segmented circles (visual indicators providing traffic pattern information at airports without airport traffic control towers **(ATCTs)**), mobile ~~Airport Traffic Control Towers (~~ATCT~~)~~**s**, Mobile Emergency Radar Facilities (MERF), and associated fencing and calibration equipment.
5-6.3f	309f	No Changes	
5-6.3g	309g	• Change "launch facility" to "commercial space launch site" • Revise citation of FAA Order 6850.2 from quotations to italics	Replacement or upgrade of power and control cables for existing facilities and equipment, such as airfield or approach lighting systems (ALS), **commercial space** launch ~~facility~~ **site** lighting

Proposed CATEX	Current CATEX	Change	Text with Changes
		• Add "or" after "Visual Guidance Lighting Systems"	systems, visual approach aids, beacons, and electrical distribution systems as described in FAA Order 6850.2, ~~"~~*Visual Guidance Lighting Systems*,~~"~~ **or** airport surveillance radar (ASR), **commercial space** launch ~~facility~~ **site** surveillance radar, Instrument Landing System (ILS), and Runway Visual Range (RVR). (ATO)
5-6.3h	309h	• Delete "security" • Delete "by rule or regulation" • Change "launch facility" to "commercial space launch site" • Delete "14 CFR part 107, Airport Security" • Add "see" in front of "14 CFR part 139" and "14 CFR part 420" • Add "including" before "safety equipment" • Change "or licensing of a launch site" to "licensing the operation of a commercial space launch site." • Add reference to "14 CFR part 420, License to Operate a Launch Site." • Add "acquisition of" before "snow removal equipment" See Clarifications	Acquisition of ~~security~~ equipment required ~~by rule or regulation~~ for the safety or security of personnel and property on the airport or **commercial space** launch ~~facility~~ **site** ~~(14 CFR part 107, Airport Security)~~, **including** safety equipment required by rule or regulation for certification of an airport (**see** 14 CFR part 139, *Certification and Operation: Land Airports Serving Certain Air Carriers*), or licensing **the operation** of a **commercial space** launch ~~facility~~ **site** (**see 14 CFR part 420, *License to Operate a Launch Site*)** ~~or~~ **and acquisition of** snow removal equipment. (ARP, AST)
5-6.3i	NEW	See NEW CATEX under ARP CATEX Justification Package.	**Approval of an Airport Layout Plan (ALP), Federal financial assistance for, or FAA projects for: the installation of solar or wind-powered energy equipment, provided the installation does not involve more than three total acres of land (including the land needed for easements and rights-of-way associated with building and installing the equipment, and any trenching and cabling that would connect the installed solar or wind equipment to other parts of the airport or an existing electrical grid. Construction contracts or leases for this equipment must include requirements to control dust, sedimentation, storm water, and accidental spills). (ARP, ATO)**
5-6.4a	310a	• Add a "," after the first construction so it is clear access road construction is separate from construction, relocation, or repair of service roadways. • Add a "," after relocation	Access road construction**,** and construction, relocation**,** or repair of entrance and service roadways that do not reduce the Level of Service on local traffic systems below acceptable levels. (ATO, APP, AST)

Proposed CATEX	Current CATEX	Change	Text with Changes
5-6.4b	310b	No Changes	
5-6.4c	310c	• Add a "," after "modification"	Installation, modification**,** or repair of radars at existing facilities that conform to the current American National Standards Institute/Institute of Electrical and Electronics Engineers (ANSI/IEEE) guidelines for maximum permissible exposures to electromagnetic fields and do not significantly change the impact on the environment of the facility. (All)
5-6.4d	310d	• Revise citation of FAA Circular "150/5200-33" • Add Title "Hazardous Wildlife Attractant on or Near Airports" after the reference to FAA Circular 150/5200-33	Federal financial assistance, Airport Layout Plan (ALP) approval, or FAA installation of de-icing/anti-icing facilities that comply with National Pollutant Discharge Elimination System (NPDES) permits or other permits protecting the quality of receiving waters, and for which related water detention or retention facilities are designed not to attract wildlife hazardous to aviation, as defined in FAA Advisory Circular 150~~-~~/5200-33, ***Hazardous Wildlife Attractant on or Near Airports***. (ATO, APP)
5-6.4e	310e	See ARP Proposed Changes to include EMAS	Federal financial assistance, licensing, or Airport Layout Plan (ALP) approval for **the following actions, provided the action would not result in significant erosion or sedimentation, and will not result in a significant noise increase over noise-sensitive areas or result in significant impacts on air quality**. ~~provided the action will not create environmental impacts outside of an airport or launch facility property.~~ • Construction, repair, reconstruction, resurfacing, extending, strengthening, or widening of a taxiway, apron, loading ramp, or runway safety area (RSA), **including an RSA using Engineered Material Arresting System (EMAS);** or • Reconstruction, resurfacing, extending, strengthening or **widening** of an existing runway. **This CATEX includes** marking, grooving, fillets, and jet blast facilities **associated with any of the above facilities.**
5-6.4f	310f	• Add "hangers, and t-hangers" to list of accessory on-site structures. See Clarification Changes	Federal financial assistance, licensing, Airport Layout Plan (ALP) approval, or FAA construction or limited expansion of accessory on-site structures, including storage buildings, garages, **hangars, t-hangars**, small parking areas, signs, fences, and other essentially similar minor development items. (ATO, ARP, AST)

Proposed CATEX	Current CATEX	Change	Text with Changes
5-6.4g	310g	No Changes	
5-6.4h	310h	• Add ", or facilities for non-aeronautical uses" to list of facilities for construction or expansion. • Change "launch facilities" to "commercial space launch sites." • Add clarification to the word substantial by referring to the FAA's presumed to conform list 72 *Federal Register* 41565 (July 30, 2007). See Clarification Package	Federal financial assistance, licensing, or **Airport Layout Plan (**ALP**)** approval for construction or expansion of facilities~~,~~ —such as terminal passenger handling and parking facilities or cargo buildings**, or facilities for non-aeronautical uses** at existing airports and **commercial space** launch ~~facilities~~ **sites**— that do not substantially expand those facilities **(see FAA's presumed to conform list (72 *Federal Register* 41565 (July 30, 2007))**). (All)
5-6.4i	310i	• Add "demolition or removal of non-FAA owned, on airport buildings and structures" • Remove "alteration" as this is covered under an existing CATEX See ARP Package on proposed changes	Demolition and removal of FAA buildings and structures, **or financial assistance for or approval of an Airport Layout Plan (ALP) for the demolition or removal of non-FAA owned, on-airport buildings or structures,** provided no hazardous substances ~~contamination is present on the site~~ or contaminated equipment is present on the site **of the existing facility. This CATEX does not apply to buildings or structures** ~~except those~~ of historic, archaeological, or architectural significance as officially designated by Federal, state or local government. ~~and alteration of an existing FAA facility that does not alter or change environmental impacts of the existing facility or structure~~
5-6.4j	310j	No Changes	
5-6.4k	310k	Change language "filling of earth" to "Placing earthen fill"	**Placing earthen fill** ~~Filling of earth~~ into previously excavated land with material compatible with the natural features of the site, provided the land is not delineated as a wetland; or minor dredging or filling of wetlands or navigable waters for any categorically excluded action, provided the fill is of material compatible with the natural features of the site, and the dredging and filling qualifies for an U.S. Army Corps of Engineers nationwide or a regional general permit. (ATO, AST, ARP)
5-6.4l	310l	• Remove "of" after "licensing" • Change "launch facility" to "commercial space launch site."	Federal financial assistance for, licensing ~~of~~, or approval of the grading of land, the removal of obstructions to air navigation, or erosion control measures, provided those activities occur on and only affect airport property, a **commercial space** launch ~~facility~~ **site**, or FAA-owned or leased property (ATO, APP, AST)
5-6.4m	310m	No Changes	

Proposed CATEX	Current CATEX	Change	Text with Changes
5-6.4n	310n	• Add "," after "concrete pad"	Minor expansion of facilities, including the addition of equipment such as telecommunications equipment, on an existing facility where no additional land is required, or when expansion is due to remodeling of space in current quarters or existing buildings. Additions may include antennas, concrete pad**,** and minor trenching for cable.
5-6.4o	310o	• Change "runoffs" to "run-off"	Minor trenching and backfilling where the surface is restored and the excavated material is protected against erosion and run-off~~s~~ during the construction period. (ATO, APP, AST)
5-6.4p	310p	• Remove "or" after "gardening" and add a comma • Add "/or" to "and" before maintenance • Change "do not cause" to "does not cause" • Add "of" before "landscape practices" • Remove "the" before recommendations • Add "provided" after recommendations • Remove "the" before the title of the FR notice • Revise formatting of FR notice citation • Add date of FR notice • Add "that" before "do not attract wildlife"	New gardening**,** ~~or~~ landscaping, and**/or** maintenance of existing landscaping that do**es** not cause or promote the introduction or spread of invasive species that would harm the native ecosystem; use **of** landscape practices that reflect ~~the~~ recommendations **provided** in ~~the~~ *Guidance for Presidential Memorandum on Environmentally and Economically Beneficial Landscape Practices on Federal Landscaped Grounds,* 60 *Federal Register* 40837 **(August 10, 1995)**; and **that** do not attract wildlife that is hazardous to aviation. (ATO, APP, AST)
5-6.4q	310q	• Change "launch facilities" to "commercial space launch sites" • Add "commercial space" before "launch vehicles"	Construction and installation, on airports or **commercial space** launch ~~facilities~~ **sites**, of noise abatement measures, such as noise barriers to diminish aircraft and **commercial space** launch vehicle engine exhaust blast or noise, and installation of noise control materials. (All)
5-6.4r	310r	No Changes	
5-6.4s	310s	• Remove comma after equipment	Repairs and resurfacing of existing access to remote facilities and equipment~~,~~ such as Air Route Surveillance Radar (ARSR), Remote Center Air/Ground Communications Facility (RCAG), Remote Communications Outlet (RCO), and VHF Omnidirectional Range (VOR) with Ultra-High Frequency Tactical Air Navigation Aid (VORTAC). (ATO)
5-6.4t	310t	• Change "launch facility" to "commercial space launch site"	Federal financial assistance for, or Airport Layout Plan (ALP) approval of, a new heliport on an existing airport or **commercial space** launch ~~facility~~

Proposed CATEX	Current CATEX	Change	Text with Changes
			site that would not significantly increase noise over noise sensitive areas. (APP, AST)
5-6.4u	310u	• Add Approval of ALP or Federal financial assistance to replacement of ASTs and USTs • Add installation and repair in addition to replacement See ARP CATEX Justification Package on revisions to current CATEXs	**Approval of an Airport Layout Plan (ALP) for installation of on-airport, aboveground storage tanks or underground storage tanks (USTs) or installation,** ~~R~~repair, or replacement of ~~underground storage tanks (~~UST~~'~~s~~)~~ and aboveground storage tanks ~~(AST's)~~ at ~~the same location~~ **FAA facilities**. **These actions must comply** with FAA Order 1050.15, Fuel Storage Tanks at FAA Facilities**,** and EPA regulations, 40 CFR parts 112, 280, and 281**, as applicable. This CATEX includes the** ~~C~~closure~~,~~ **and** removal~~, or remediation~~ **of a fuel storage tank, and** remediation of **contaminants resulting from** a fuel storage tank at a**n** FAA facility **or on an airport, provided those actions occur** in accordance with **the order and regulations noted above**. **The establishment of bulk fuel storage and associated distribution systems is not within the scope of this CATEX. Those actions are subject to Paragraph 3-1.2.b.(5) of this Order**. (ATO, ARP)
5-6.4v	310v	No Changes	
506.4w	310w	No Changes	
5-6.4x	310x	No Changes	
5-6.4y	310y	No Changes	
5-6.4z	310z	• Revise citation to 14 CFR part 77	Federal financial assistance, licensing, Airport Layout Plan (ALP) approval, or FAA action related to topping or trimming trees to meet 14 CFR part 77, ~~(Objects Affecting Navigable Airspace)~~ ***Safe, Efficient Use, and Preservation of the Navigable Airspace***, standards for removing obstructions which can adversely affect navigable airspace. (All)
5-6.4aa	310aa	No Changes	
5-6.4bb	NEW	See ARP CATEX Justification Package on fee simple purchase of land	**Airport Layout Plan (ALP) approval and/or Federal financial assistance for actions related to a fee-simple purchase of land or the purchase of an avigation easement to establish a runway protection zone (RPZ) or for other aeronautical purposes provided there is no land disturbance and does not require extensive business or residential relocations.**
5-6.4cc	NEW	See ARP CATEX Justification Package on runway conversion to taxiway	**Approval of an Airport Layout Plan (ALP) and/or Federal financial assistance to permanently close a runway and use it as a taxiway at small, low-activity airports, provided**

Proposed CATEX	Current CATEX	Change	Text with Changes
			any changes to lights or pavement would be on previously developed airport land.
5-6.4dd	NEW	See ARP CATEX Justification Package on Level 1 Airport Traffic Control Towers	**FAA construction, reconstruction, or relocation of a non-Radar, Level 1 airport traffic control tower (a tower that does not use radar) at an existing visual flight rule airport, or FAA approval of an Airport Layout Plan (ALP) and/or Federal funding to do so, provided the action would occur on a previously disturbed area of the airport and not: (1) cause an increase in the number of aircraft operations, a change in the time of aircraft operations, or a change in the type of aircraft operating at the airport; (2) cause a significant noise increase in noise sensitive areas; or (3) cause significant air quality impacts. (ATO, ARP)**
5-6.4ee	NEW	New CATEX See ATO CATEX Justification Package on environmental investigation of HAZMAT	**Environmental investigation of hazardous waste or hazardous substance contamination on previously developed airport or FAA-owned, leased, or operated sites including temporary activities such as minor excavation, soil test borings, and installation of groundwater testing and monitoring wells, piezometers and other groundwater well monitoring devices impacting approximately one acre in aggregate surface area. The work plan or Sampling and Analysis Plan (SAP) for the project must integrate current industry best practices and address, as applicable, surface restoration, well and soil boring decommissioning and the collection, storage, handling, transportation, minimization, and disposal of investigation derived wastes and other Federal or state regulated wastes generated by the investigation. The work plan or SAP must be coordinated with and, if required, approved by the appropriate or relevant governmental agency or agencies prior to commencement of work. (ATO, ARP)**
5-6.4ff	NEW	New CATEX See ATO CATEX Justification Package on remediation of HAZMAT	**Remediation of hazardous wastes or hazardous substances impacting approximately one acre or less in aggregate surface area, including siting, site preparation, construction, equipment repair or replacement, operation and maintenance, monitoring, and removal of remediation-related equipment and facilities, on previously developed FAA-owned, leased, or operated sites. Remedial or corrective actions must be performed in accordance with an approved work plan (i.e., remedial action plan, corrective action plan, or similar document) that documents applicable current industry best practices and addresses, as**

Proposed CATEX	Current CATEX	Change	Text with Changes
			applicable, permitting requirements, surface restoration, well and soil boring decommissioning, and the minimization, collection, storage, handling, transportation, and disposal of Federal or state regulated wastes. The work plan must be coordinated with, and if required, approved by, the appropriate governmental agency or agencies prior to the commencement of work. Examples of covered activities include: • **Minor excavation for removal of contaminated soil or containers (drums, boxes, or other articles); and** • **Installation, operation and maintenance, and removal of in-situ remediation systems and appurtenances, including groundwater wells for treatment and monitoring of soil and water contamination. (ATO)**
5-6.5a	311a	• Add "see" before "14 CFR part 71" • Change title of 14 CFR part 71 to match the title of the regulation. Should be "Designation of Class A, B, C, D, and E Airspace Areas; Air Traffic Service Routes; and Reporting Points." • Revise citation of 14 CFR part 71 from quotations to italics	Rulemaking actions that designate or modify classes of airspace areas, airways, routes, and reporting points (**see** 14 CFR part 71, ~~"~~*Designation of Class A, ~~Class~~ B, ~~Class~~ C, ~~Class~~ D, and ~~Class~~ E Airspace Areas; ~~Airways;~~ **Air Traffic Service** Routes; and Reporting Points*~~"~~). (ATO)
5-6.5b	311b	• Remove ":" after "regarding" • Add "see" before "14 CFR 71.15", "part 101", and "part 105" • Add § • Change the description to include jet routes as described under the regulation. • Fix typo – it should be "14 CFR 71.15" rather than "71.75" • Add title *Designation of jet routes and VOR Federal airways* • Change "unmanned rockets" to "amateur rockets" per changes to the regulation title • Remove " " and revise citations of CFR parts from quotations to italics	Actions regarding~~:~~ establishment of Federal airways (**see** 14 CFR § 71.~~7~~15, ***Designation of jet routes and VOR Federal airways***); operation of civil aircraft in a defense area, or to, within, or out of the United States through a designated Air Defense Identification Zone (ADIZ), (14 CFR part 99, ~~"~~*Security Control of Air Traffic*~~"~~); authorizations for operation of moored balloons, moored kites, ~~unmanned~~ **amateur** rockets, and unmanned free balloons (**see** 14 CFR part 101, ~~"~~*Moored Balloons, Kites, ~~Unmanned~~ **Amateur** Rockets and Unmanned Free Balloons*~~"~~); and, authorizations of parachute jumping and inspection of parachute equipment, (**see** 14 CFR part 105, ~~"~~*Parachute Operations*~~"~~). (ATO)
5-6.5c	311c	• Add "," after (NAS) • Remove "or" between "airspace" and "a" • Add "a reduction in" before	Actions to return all or part of special use airspace (SUA) to the National Airspace System (NAS)**,** ~~(~~such as revocation of airspace**,** ~~or~~ a decrease in dimensions**,** or **a reduction in** times of use~~)~~ **(e.g.,**

Proposed CATEX	Current CATEX	Change	Text with Changes
		"times of use" • Add the following examples: "from continuous to intermittent, or use by a Notice to Airmen (NOTAM)"	**from continuous to intermittent, or use by a Notice to Airmen (NOTAM)**). (ATO)
5-6.5d	311d	• Define "SUA" as "special use airspace"	Modification of the technical description of **special use airspace (**SUA**)** that does not alter the dimensions, altitudes, or times of designation of the airspace (such as changes in designation of the controlling or using agency, or correction of typographical errors). (ATO)
5-6.5e	311e	No Changes	
5-6.5f	NEW 311f was reserved	See ATO Justification package on increasing altitude in special use airspace	**Actions to increase the altitude of special use airspace. (ATO)**
5-6.5g	311g	• "Radio Navigation System "should be rephrased as "Area Navigation / Required Navigation Performance (RNAV/RNP)" as these terms have been updated • Change "procedures" to "flight tracks" as this term has been redefined • Add the language "For these types of actions, the Noise Integrated Routing System (NIRS) Noise Screening Tool, or other FAA-approved environmental screening methodology should be applied" See FAA clarification section	Establishment of Global Positioning System (GPS), Flight Management System (FMS), ~~Radio~~ **Area** Navigation**/Required Navigation Performance** ~~System~~ (RNAV**/RNP**), or essentially similar systems~~,~~ that use overlay of existing ~~procedures~~ **flight tracks. For these types of actions, the Noise Integrated Routing System (NIRS) Noise Screening Tool, or other FAA-approved environmental screening methodology should be applied.** (ATO, AFS, AVN, AST)
5-6.5h	311h	• Add "or modification" See FAA clarification section	Establishment **or modification** of helicopter routes that channel helicopter activity over major thoroughfares. (ATO, AFS, AVN)
5-6.5i	311i	• Remove "instrument" from "procedures" • Remove parentheses around AGL • Change "air traffic modifications" to "modification to air traffic procedures…" • Update reference from "Air Traffic Noise Screening Procedure (ATNS)" to "the Noise Screening Tool (NST) or other FAA-approved	Establishment of new or revised air traffic control procedures conducted at 3,000 feet or more above ground level (AGL); ~~instrument~~ procedures conducted below 3,000 feet ~~(~~AGL~~)~~ that do not cause traffic to be routinely routed over noise sensitive areas; modifications to currently approved ~~instrument~~ procedures conducted below 3,000 feet ~~(~~AGL~~)~~ that do not significantly increase noise over noise sensitive areas; and increases in minimum altitudes and landing minima. For ~~Air Traffic~~ modifications to **air traffic** procedures at or above 3,000 feet ~~(~~AGL~~)~~, the ~~Air Traffic Noise Screening Procedure (ATNS)~~ **Noise Screening Tool (NST) or**

Proposed CATEX	Current CATEX	Change	Text with Changes
		environmental screening methodology."	**other FAA-approved environmental screening methodology** should be applied. (ATO, AFS, AVN)
5-6.5j	311j	No Changes	
5-6.5k	311k	No Changes	
5-6.5l	311l	See ARP CATEX Justification Package for Revised CATEX on displaced runway	**Federal financial assistance and/or Airport Layout Plan (ALP) approval or other FAA action to establish or** remove~~al of~~ a displaced ~~runway~~ threshold on an existing runway**, provided the action does not require establishing or relocating an approach light system that is not on airport property (see Paragraph 3-1.2b(9)) or an instrument landing system (see Paragraph 3-1.2b(8)). This CATEX does not apply to displaced thresholds that require runway extensions.**
5-6.5m	311m	• Change "A short term change" to "short-term changes"	~~A s~~**S**hort-term change**s** in air traffic control procedures, not to exceed six months, conducted under 3,000 feet above ground level (AGL) to accommodate airport construction. (ATO)
5-6.5n	311n	• Add "the" before operation and noise impacts	Tests of air traffic departure or arrival procedures conducted under 3,000 feet above ground level (AGL), provided that: (1) the duration of the test does not exceed six months; (2) the test is requested by an airport or launch operator in response to mitigating noise concerns, or initiated by the FAA for safety or efficiency of proposed procedures; and (3) test data collected will be used to assess **the** operational and noise impacts of the test. (ATO)
5-6.5o	311o	• Remove "measurement of" • Add "/or" after "and" • Change "on" to "to" after "possible impacts"	Procedural actions requested by users on a test basis to determine the effectiveness of new technology and**/or** ~~measurement of~~ possible impacts ~~on~~ **to** the environment. (ATO)
5-6.5p	311p	No Changes	
5-6.5q	NEW	Legislative CATEX	
5-6.5r	NEW	Legislative CATEX	
5-6.6a	312a	• Spell out EPA	All FAA actions to ensure compliance with **Environmental Protection Agency** ~~EPA~~ aircraft emissions standards. (AEE)
5-6.6b	312b	• Add "area containing one aerobatic practice box" after aerobatic practice • Remove "," after exposition and insert parentheses • Remove "per FAA Order 8700.1	Authorizations and waivers for infrequent or one-time actions, such as an airshow or aviation-related exposition~~,~~ **(**to include an aerobatic practice **area containing one aerobatic practice** box or aerobatic contest box**)**~~, per FAA Order 8700.1, Chapter 48~~, ~~and~~ **or** parachuting or skydiving events, that may

Proposed CATEX	Current CATEX	Change	Text with Changes
		Chapter 48" • Change "and" to "or" See FAA Clarification section	result in some temporary impacts that revert back to original conditions upon action completion. (ATO, AFS)
5-6.6c	312c	• Remove "apostrophe" from TSO's	Denials of routine petitions for: (1) exemption; (2) reconsideration of a denial of exemption; (3) rulemaking; (4) reconsideration of a denial of a petition for rulemaking; and (5) exemptions to technical standard orders (TSO~~'~~s). (AEE, AFS, AIR, AST, ATO)
5-6.6d	312d	• Remove "," after Rulemaking • Make "Air Traffic" lowercase • Replace "are" with "as" before "identified" • Update paragraph reference	Issuance of regulatory documents (e.g., Notices of Proposed Rulemaking~~,~~ and issuance of Final Rules) covering administrative or procedural requirements. (Does not include ~~A~~**a**ir ~~T~~**t**raffic procedures; specific ~~A~~**a**ir ~~T~~**t**raffic procedures that are categorically excluded ~~are~~ **as** identified under ~~paragraph 311 of this order.~~ **Paragraph 5-6.5 of this Order**). (AFS, AGC)
5-6.6e	312e	• Add "the following" before the list of regulations • Add § • Add titles to statutes	Issuance of special flight authorizations controlled by operating limitations, specified in **the following:** 14 CFR **§** 21.199, ***Issue of Special Flight Permits;*** 14 CFR **§** 91.319, ***Aircraft Having Experimental Certificates: Operating Limitations;*** 14 CFR **§** 91.611, ***Authorization for Ferry Flight with One Engine Inoperative;*** and 14 CFR **§** 91.859, ***Modification to Meet Stage 3 or Stage 4 Noise Levels***. (AFS, AIR, AEE)
5-6.6f	312f	• Change "which" to "that"	Regulations, standards, and exemptions (excluding those ~~which~~ **that** if implemented may cause a significant impact on the human environment).