

National Aeronautics and Space Administration



# **Administrative Record for Updates to the National Aeronautics and Space Administration Categorical Exclusions**

February 2023

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## Acronyms

ARC	Ames Research Center
AFRC	Armstrong Flight Research Center
ARPA	Aquatic Resource Alteration Permit
CatEx	Categorical Exclusion
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
DLA	Defense Logistics Agency
DOE	Department of Energy
DoI	Department of Interior
EA	Environmental Assessment
EIS	Environmental Impact Statement
FONSI	Finding of No Significant Impact
GRC	Glenn Research Center
GSA	General Services Administration
GSFC	Goddard Space Flight Center
HQ	National Aeronautics and Space Administration Headquarters
JPL	Jet Propulsion Laboratory
JSC	Johnson Space Center
KSC	Kennedy Space Center
LaRC	Langley Research Center
MOU	Memorandum of Understanding
MSFC	Marshall Space Flight Center
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act
NPRM	Notice of Proposed Rulemaking
R&D	Research and Development
RCRA	Resource Conservation and Recovery Act
REC	Record of Environmental Consideration
RER	Restricted Earth Return
SSC	Stennis Space Center



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UAS	Unmanned Aircraft System
UER	Unrestricted Earth Return
USDA	United States Department of Agriculture
WFF	Wallops Flight Facility
WSTF	White Sands Test Facility

## 1.0 Introduction

The National Aeronautics and Space Administration (NASA) is proposing to amend and update its regulations for implementing the National Environmental Policy Act of 1969 (NEPA) (Title 14 Code of Federal Regulations (CFR) Part 1216) consistent with the Council on Environmental Quality’s (CEQ) regulations for implementing NEPA (40 CFR Parts 1500–1508). The Notice of Proposed Rulemaking (NPRM) proposes updates to NASA’s regulations to better align with the Agency’s current and expected future actions, would adjust the presumptive level of NEPA review and documentation required for certain actions, would provide more concise descriptions of NASA actions subject to NEPA review, and ensure consistency with newly executed Executive Orders or Presidential Memoranda, and (CEQ) policy and guidance documents as applicable. As recommended by CEQ’s guidance (*Establishing, Applying, and Revising Categorical Exclusions under the National Environmental Policy Act*), issued November 2010, NASA requires existing Categorical Exclusions (CatExs) to be reviewed at least every seven years to determine whether modifications, additions, or deletions are appropriate. NASA’s CatExs were last reviewed and revised in 2012. The NPRM proposes updates to NASA CatExs based on a 2019 agencywide review and is consistent with CEQ regulations and guidance.

The proposed regulatory amendments would add 9 new CatExs and modify 16 existing CatExs. A summary of the new and modified CatExs are listed in **Table 1**. This administrative record describes NASA’s development process for reviewing its existing CatExs and provides supporting information for the proposed new and modified CatExs. A complete list of NASA’s 32 CatExs recorded in the NPRM is included in **Appendix A**.

**Table 1 – Summary of New and Updated NASA CatExs<sup>1</sup>**

Existing CatEx Number	New CatEx Number	CatEx Description	Status
1(ii)	1(ii)	Administrative Activities: Issuing procedural rules, manuals, directives, and requirements	Modified
1(iv)	1(iv)	Administrative Activities: Preparing documents	Modified
1(v)	1(v)	Administrative Activities: Information-gathering exercises	Modified
1(vi)	1(vi)	Administrative Activities: Preparation and dissemination of information	Modified
N/A	1(ix)	Administrative Activities: Field studies	New
2(i)	2(i)	Operations and Management Activities: Routine maintenance, minor construction or rehabilitation, minor demolition, minor modification, minor repair, and continuing or altered operations at, or of, existing NASA or NASA-funded or -approved facilities and equipment	Modified

<sup>1</sup> Existing NASA Categorical Exclusions are set forth at 14 CFR 1216.304(d).

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Existing CatEx Number	New CatEx Number	CatEx Description	Status
2(ii)	2(ii)	Operations and Management Activities: Installing or removing equipment	Modified
2(iii)	2(iii)	Operations and Management Activities: Contributing equipment, software, technical advice, exchanging data, and consulting with other agencies and public and private entities.	Modified
2(v)	2(v)	Operations and Management Activities: Routine packaging, labeling, storage, transportation, and disposal of materials and wastes	Modified
N/A	2(vi)	Operations and Management Activities: Habitat and species management	New
N/A	2(vii)	Operations and Management Activities: Small-scale, short-term cleanup actions, under Resource Conservation and Recovery Act or other authorities	New
N/A	2(viii)	Operations and Management Activities: Replacement of existing energy sources with alternative or renewable energy sources	New
N/A	2(ix)	Operations and Management Activities: Routine maintenance, repair, and operation of transportation systems	New
3(i)	3(i)	Research, Development, and Science Activities: Research, development, testing, and evaluation	Modified
3(ii)	3(ii)	Research, Development, and Science Activities: Use of small quantities of radioactive materials	Modified
3(iii)	3(iii)	Research, Development, and Science Activities: Use of lasers for research and development, scientific instruments and measurements, and distance and ranging	Modified
N/A	3(iv)	Research, Development, and Science Activities: Use of payloads on a launch vehicle, sounding rocket, scientific balloon, or other platform	New
N/A	3(v)	Research, Development, and Science Activities: Return of unrestricted Earth return samples from solar system bodies to Earth	New
4(ii)	4(ii)	Real and Personal Property Activities: Granting or accepting easements, leases, licenses, rights-of-entry, and permits	Modified

Existing CatEx Number	New CatEx Number	CatEx Description	Status
4(iii)	4(iii)	Real and Personal Property Activities: Transfer or disposal of real property, property rights or interests if a resulting change in use is one which, if conducted	Modified
4(iv)	4(iv)	Real and Personal Property Activities: Transferring real property administrative control to another Federal agency	Modified
N/A	4(vi)	Real and Personal Property Activities: Change in the facility status of real property assets	New
N/A	4(vii)	Real and Personal Property Activities: Reductions, realignments, or relocation of personnel into existing federally-owned or commercially leased space	New
5(i)	5(i)	Aircraft and Airfield Activities: Periodic aircraft flight activities	Modified
5(ii)	5(ii)	Aircraft and Airfield Activities: Relocation of similar aircraft	Modified

## 2.0 Development Process

In 2018, NASA formed a working group to review and consider revisions to 14 CFR subpart 1216.3, including listed CatExs. The members comprising the working group were current NASA environmental professionals with numerous years of experience in the implementation of NEPA. The working group received input from each NASA Center and NASA Headquarters. Several of the members served on the working group for the 2012 revision of NASA’s NEPA regulations. A summary of the working group members’ qualifications is included in **Appendix B**.

In accordance with CEQ’s regulations and 2010 guidance, the working group reviewed each existing CatEx against NASA’s existing policies, procedures, programs, and mission to determine if they were current and appropriate. The working group also reviewed the 2018 CEQ comprehensive list of Federal Agency CatExs and identified other agencies’ CatExs for activities that are similar in nature, scope, and impact on the human environment to those actions conducted by NASA. Based on this benchmarking of other Federal agencies’ CatExs and review of their underlying administrative records, the working group recommended NASA add three CatExs to § 1216.304(d). In addition, the working group conducted a 2019 agencywide review of previous NASA actions and supporting environmental documentation to propose the addition of six CatExs. As described below, the supporting environmental documentation for these actions can be viewed at <https://www.nasa.gov/feature/nasa-nepa-regulations>. The working group also recommended amending several existing NASA CatExs to better define the actions and to ensure NASA consistently applies and tracks CatEx use. Concurrently, the working group reviewed NASA’s existing list of extraordinary circumstances (14 CFR 1216.304(c)) to ensure they adequately account for those situations and settings in which a proposed new or revised CatEx may not be applied, and NASA must prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS) to support agency action.

In addition to reviewing NASA's CatExs and extraordinary circumstances, the working group reviewed NASA actions normally requiring an EA or an EIS to determine if the level of analysis is appropriate and if additional actions should be added. The review considered NASA's current mission and routinely implemented actions, past experiences, past mission specific NEPA EAs and EIS's, and recently completed programmatic NEPA analysis. The working group recommended adjusting the level of analysis for several actions from EIS to EA and from EA to CatEx because NASA has reviewed the environmental effects of each of the actions and found them not to be significant.

The working group developed a draft proposed rule, then distributed the draft to the NEPA Managers at the ten (10) NASA Centers and component facilities, and to other environmental professionals and stakeholders within NASA, for review and comment. NASA also consulted with CEQ during the development process to ensure the proposed changes to 14 CFR subpart 1216.3 would meet NEPA requirements.

### 3.0 Categorical Exclusion (CatEx) Categories

NASA's CatExs are organized into five categories. The categories are listed below:

§1216.304(d) The following actions are categorically excluded from EA and EIS review:

- §1216.304(d)(1) Administrative Activities
- §1216.304(d)(2) Operations and Management Activities
- §1216.304(d)(3) Research, Development, and Science Activities including:
  - §1216.304(d)(4) Real and Personal Property Activities
  - §1216.304(d)(5) Aircraft and Airfield Activities

During the update process, two headings were updated to improve grammar and streamline text. The updates are detailed below:

#### §1216.304(d)

**Existing Heading Language:** Specific NASA actions meeting the criteria for being categorically excluded from the requirements for EAs and EISs are as follows:

**Proposed New Heading Language:** The following actions normally do not have a significant effect on the human environment and are categorically excluded from the requirement to prepare EA and EIS:

#### **Support for the Modification of Heading §1216.304(d)**

The proposed edits improve regulatory clarity, grammar and streamlines text. Within the subheadings of this section are the CatEx categories, primarily grouped under activity headings. In addition, the proposed edits to § 1216.304(d) include reorganizing and renumbering the paragraph to accommodate new and revised CatExs.

#### §1216.304(d)(3)

**Existing Heading Language:** Research and Development (R&D) Activities including:

**Proposed New Heading Language:** Research, Development, and Science Activities including:

**Support for the Modification of Heading §1216.304(d)(3)**

The proposed edit would incorporate the term “science” into the heading to clarify the scope of the CatEx.

## 4.0 New CatExs

### 4.1 CatEx 1(ix)

**Proposed New CatEx Language:** *Field studies, including water sampling, monitoring wells, cultural resources surveys, biological surveys, geologic surveys, modeling or simulations, routine data collection and analysis, and/or temporary equipment.*

#### **Support for the Addition of CatEx 1(ix)**

This proposed new CatEx was previously part of § 1216.304(d)(1)(v). The description was updated to include “monitoring wells” and “and/or temporary equipment” into the description of field study activities to which the CatEx would apply. The updated text was added to further clarify covered water sampling activities. In support of this change, the below record of environmental consideration (REC) and groundwater monitoring documentation have previously been completed and found no significant environmental impact for actions of a similar nature and scope:

#### **Previous Comparable Actions**

Based on NASA’s experience with these types of actions, as documented in the following examples of NASA NEPA compliance records and other environmental documentation, which have been completed and monitored by NASA environmental professional staff, these actions do not result in individually or cumulatively significant environmental impacts.

**Table 2 – CatEx 1(ix): Previous Comparable Actions**

Center	Date	Document Type	Title
LaRC	Apr-17	Environmental Checklist	Groundwater Monitoring Well
LaRC	Nov-20	Environmental Checklist	Static and Bonded Grounding System Survey
LaRC	Feb-20	Environmental Checklist	Sanitary Sewer Condition Evaluation
LaRC	Feb-20	Environmental Checklist	Sewer Smoke Test
MAF	Dec-20	RCRA Report	Semi-Annual Groundwater Monitoring Report
MSFC	May-20	CERCLA Report	Groundwater Monitoring Report for 2019
SSC	2017 - 2020	ARPA permit from Mobile, Alabama Army Corps of Engineers	6 Cultural resources surveys and wetland determination surveys



Center	Date	Document Type	Title
KSC	Sep-20	REC	Soil Interim Measures and Monitoring at GSA Reclamation Yard

4.2 CatEx 2(vi)

**Proposed New CatEx Language:** *Habitat and species management activities conducted within the boundaries of NASA controlled properties in accordance with applicable Federal, State, or local requirements. Examples include but are not limited to restoration of unique or critical habitat; thinning or brush control to improve growth of natural habitat, reduce invasive species, or to reduce fire hazard; prescribed burning to reduce natural fuel build-up, reduce invasive species, or improve native plant vigor; planting appropriate vegetation, which does not include noxious weeds or invasive plants; or wildlife management activities. (REC required)*

**Support for the Addition of CatEx 2(vi)**

This proposed new CatEx would cover habitat and species management activities conducted within the boundaries of NASA controlled properties in accordance with applicable Federal, State, or local requirements. Currently, NASA’s habitat and species management is conducted under the CatEx set forth at § 1216.304(d)(2)(i). Based on a review of other Agency CatExs, NASA has determined they conduct similar activities, under similar circumstances, and therefore, this proposed new CatEx has been developed to cover similar NASA habitat and species management activities. For example, the U.S. Department of Agriculture, Forest Service’s CatExs include similar examples to NASA’s proposed new CatEx in 36 CFR 220.6(e)(iv) and 36 CFR 220.6(e)(6)(ii).. Establishing a distinct CatEx for these types of activities will permit NASA to specifically track habitat and species management as a distinct action. The proposed new CatEx would require documentation with a REC.

**Benchmarked CatExs**

**Table 3 – CatEx 2(vi): Benchmarked CatExs**

Agency	Language and Citation
U.S. Department of Agriculture (USDA), Forest Service	36 CFR 220.6(e)(6)(iv), “Prescribed burning to reduce natural fuel build-up and improve plant vigor”
USDA, Forest Service	36 CFR 220.6(e)(6)(ii), “Thinning or brush control to improve growth or to reduce fire hazard including the opening of an existing road to a dense timber stand.”

**Previous Comparable Actions**

Based on NASA’s experience with these types of actions, as documented in the following examples of NASA NEPA compliance records and other environmental documentation, which have been completed and monitored by NASA environmental professional staff, these actions do not result in individually or cumulatively significant environmental impacts.

**Table 4 – CatEx 2(vi): Previous Comparable Actions**

Center	Date	Document Type	Title
GSFC	Jan-16	REC	Wildlife Management at GSFC - Greenbelt
GRC	Oct-15	REC	Space Act Agreement GRC & Nature Conservancy for Cooperative Habitat Management of NASA Plum Brook Station
ARC	Jun-12	Space Act Agreement	Goat Fence - Various Locations
ARC	Nov-17	REC	Burrowing Owl Preserve Enhancements
GRC	Feb-20	Environmental Checklist	NASA Plum Brook Station Public Deer Hunt Estimates
GSFC	Jan-20	Environmental/Safety Checklist	License - USDA Use Land for Meadow
KSC	May-19	MOU	MOU 45th Space Wing, U.S. Fish & Wildlife Service, KSC Prescribed Burn
GRC	2015	Deer Management Plan	Deer Management Strategies at NASA Plum Brook Station
LaRC	Nov-18	Environmental Checklist	Removal of Trees
LaRC	Apr-20	Environmental Checklist	Riparian Buffer Planting
KSC	Oct-19	REC	Press Site - Natural Line of Site Clearing
KSC	Apr-12	REC	Brazilian Pepper Eradication, NASA Causeway West
SSC	2016-2021	GP-53 U.S. Army Corps of Engineers Wetland Permit	12 controlled burns of 5 wetland mitigation sites for past 5 years

#### 4.3 CatEx 2 (vii)

**Proposed New CatEx Language:** *Small-scale, short-term cleanup actions under the Resource Conservation and Recovery Act or other authorities, to reduce risk to human health or the environment from the release or imminent and substantial threat of release of a hazardous substance other than high-level radioactive waste and spent nuclear fuel, including treatment (such as incineration, encapsulation, physical or chemical separation, and compaction), recovery, storage, or disposal of wastes at existing facilities currently handling the type of waste involved in the action.*

#### **Support for the Addition of CatEx 2(vii)**

This proposed new CatEx would cover short-term cleanup actions conducted in compliance with the Resource Conservation and Recovery Act or other similar authorities. NASA is making this change after reviewing other Federal agency CatExs for similar actions. NASA is proposing this CatEx based on the Department of Energy's (DOE's) CatEx B6.1 (10 CFR 1021, Appendix B). Examples of actions typically covered under DOE's CatEx that would also be covered by NASA's proposed new CatEx include the following: repair or replacement of leaking containers; perimeter protection if needed to reduce the spread of, or direct contact with, the contamination; segregation of wastes that may react with one



another; and installation of fences, warning signs, or other security precautions if humans or animals may have access to the release.

**Benchmarked CatEx**

**Table 5 – CatEx 2(vii): Benchmarked CatEx**

Agency	Language and Citation
DOE	CatEx B6.1 (10 CFR 1021, Appendix B). Small-scale, short-term cleanup actions, under Resource Conservation and Recovery Act, Atomic Energy Act, or other authorities, to reduce risk to human health or the environment from the release or threat of release of a hazardous substance other than high-level radioactive waste and spent nuclear fuel, including treatment (such as incineration, encapsulation, physical or chemical separation, and compaction), recovery, storage, or disposal of wastes at existing facilities currently handling the type of waste involved in the action.

**Previous Comparable Actions**

Based on NASA’s experience with these types of actions, as documented in the following examples of NASA NEPA compliance records and other environmental documentation, which have been completed and monitored by NASA environmental professional staff, these actions do not result in individually or cumulatively significant environmental impacts.

**Table 6 – CatEx 2(vii): Previous Comparable Actions**

Center	Date	Document Type	Title
WSTF	Aug-15	REC	Firing Ranges SWMU Investigation
ARC	Mar-18	REC	Clean up of AO114, a Former Fill Area
ARC	Dec-18	REC	MEW Pipeline Clean-Out and Clean-Out Installation
GRC	Dec-18	Environmental Checklist	Firing Range 5 and Construction Debris Pile
GRC	Dec-18	Environmental Checklist	Firing Ranges 3 and 4 Remediation
LaRC	Sep-15	Environmental Checklist	583 NACA Underground Storage Tank Removal/Remediation
KSC	Jun-20	REC	Air Sparging Interim Measure Expansion at Launch Complex 34 (LC-34)
KSC	Sep-20	REC	Groundwater Interim Measure at LC39A Operations Support Building Area
WFF	Mar-21	REC	PFAS Groundwater Treatment System

4.4 CatEx 2(viii)

**Proposed New CatEx Language:** *Replacement of existing energy sources with alternative or renewable energy sources that comply with existing permit conditions.*

**Support for the Addition of CatEx 2(viii)**

This proposed new CatEx would cover replacement of existing energy sources with alternative energy sources. NASA is proposing this CatEx based on the Defense Logistics Agency’s (DLA’s) CatEx 37 (DLA Regulation 1000.22, Appendix A). Currently, replacing existing energy sources with alternative energy sources is conducted under § 1216.304(d)(2)(i). Establishing a distinct CatEx for these types of activities will permit NASA to better track proactive measures taken as part of sustainability initiatives.

**Benchmarked CatEx**

**Table 7 – CatEx 2(viii): Benchmarked CatEx**

Agency	Language and Citation
DLA	CatEx 37 (DLA Regulation 1000.22, Appendix A). Replacement of existing energy sources with alternative, renewable, or synthetic energy sources that comply with existing permit conditions. (DLA Form 1664 Required).

**Previous Comparable Actions**

Based on NASA’s experience with these types of actions, as documented in the following examples of NASA NEPA compliance records and other environmental documentation, which have been completed and monitored by NASA environmental professional staff, these actions do not result in individually or cumulatively significant environmental impacts.

**Table 8 – CatEx 2(viii): Previous Comparable Actions**

Center	Date	Document Type	Title
GSFC	Sep-08	REC	Replace Building 25 HVAC system with Geothermal Heat Pump System
JPL	Apr-15	REC	Energy Management System (EMS) Upgrade
JPL	Apr-15	REC	Natural Gas and BTU Utility Metering
JPL	Jul-15	REC	Building 230 Chiller Replacement
JPL	Jan-11	REC	ECM Rooftop Solar PV System Installation
JPL	Jun-17	REC	JPL Parking Structure Solar Photovoltaic (PV) Systems
AFRC	May-20	REC	Multi-Building Lighting Upgrade (to LED lighting)
WSTF	Feb-09	REC	Fiscal Year 2009 Renewable Energy Project
WSTF	Mar-11	REC	Small Scale Wind Turbines
WSTF	Feb-14	REC	Forward Guard Gate 20KW Solar Photovoltaic Project
WFF	Mar-19	REC	Solar Array System
LaRC	Apr-09	Supplemental EA	Geothermal Ground Surface Heat & Cooling System Installation for New Town Project at NASA LaRC

Center	Date	Document Type	Title
KSC	Jun-19	REC	Phase 1 UESC Project, ECM-11.1
KSC	Jun-19	REC	Phase 1 UESC Project, ECM-13 & 19
KSC	Jun-19	REC	Phase 1 UESC Project, ECM-12
WSTF	Jun-20	EA	NASA Photovoltaic System at GSFC, White Sands Complex, New Mexico

4.5 CatEx 2 (ix)

**Proposed New CatEx Language:** *Routine maintenance, repair, and operation of vessels (including unmanned autonomous surface vessels), aircraft (including unmanned aircraft systems), overland/surface transportation vehicles, and other transportation systems as applicable. Examples include, but are not limited to: transportation or relocation of NASA equipment and hardware by barge, aircraft or surface transportation system (e.g., tractor trailer or railroad); retrieval of spent solid rocket boosters by vessel; repair or overhaul of vessel, aircraft or surface transportation systems that do not result in a change in the environmental impacts of their normal operation.*

**Support for the Addition of CatEx 2(ix)**

This proposed new CatEx would cover routine maintenance, repair, and operation of transportation platforms. Currently, these types of activities are conducted under § 1216.304(d)(2)(i). Establishing this distinct CatEx provides clarification between the types of activities covered under each CatEx and creates a more concise description.

**Previous Comparable Actions**

Based on NASA’s experience with these types of actions, as documented in the following examples of NASA NEPA compliance records and other environmental documentation, which have been completed and monitored by NASA environmental professional staff, these actions do not result in individually or cumulatively significant environmental impacts.

**Table 9 – CatEx 2(ix): Previous Comparable Actions**

Center	Date	Document Type	Title
LaRC	Mar-18	REC	5-Year Extension of CERTAIN Phase I (North 4) UAS Range
MSFC	Jul-14	REC	Pegasus Barge Modifications
GRC	Feb-18	UAS Operations Manual; Flight Planning Form; Safety Permit	SpaceX F9 Heavy Landing
LaRC	Mar-18	REC	Beaver Dam UAS Flight Range
LaRC	Mar-18	REC	CERTAIN Phases II and III – UAS Flights at LaRC
LaRC	Apr-18	REC	UAS Operations at Camp Peary
LaRC	Apr-18	REC	Military Aviation Museum UAS Flight Range

4.6 CatEx 3 (iv)

**Proposed New CatEx Language:** *Use of payloads on a launch vehicle, sounding rocket, scientific balloon, or other platform (REC required).*

**Support for the Addition of CatEx 3(iv)**

This proposed new CatEx would cover the use of NASA-sponsored payloads as a distinct action separate from the platform on which it is carried. Over the past decade, NASA has launched hundreds of payloads on different platforms. NASA has found the environmental impacts from these activities are not significant. Based on this extensive experience and past analysis, (such as NASA Routine Payload EA and the NASA Scientific Balloon Program Programmatic Environmental Assessment (PEA)), NASA has determined that this type of activity fits the definition of a CatEx under 40 CFR 1501.4 and 1508.1 (d), a category of action that normally does not have a significant effect on the human environment. This CatEx would not apply to payloads containing a space nuclear system if it was determined that the payload would require an environmental assessment as provided for in proposed § 1216.305(b)(4).

**Previous Comparable Actions**

Based on NASA’s experience with these types of actions, as documented in the following examples of NASA NEPA compliance records and other environmental documentation, which have been completed and monitored by NASA environmental professional staff, these actions do not result in individually or cumulatively significant environmental impacts.

**Table 10 – CatEx 3(iv): Previous Comparable Actions**

Center	Date	Document Type	Title
HQ	Jun-02	EA	Final Environmental Assessment for Launch of NASA Routine Payloads on Expendable Launch Vehicles for Cape Canaveral Air Force Station Florida and Vandenberg Air Force Base California <i>(Note: 39 projects have been tiered from this EA)</i>
HQ	Nov-11	EA	Environmental Assessment for Launch of NASA Routine Payloads <i>(Note: 39 projects have been tiered from this EA)</i>
WFF	Sep-10	PEA	NASA Scientific Balloon Program PEA
ARC	Nov-19	REC	Investigation of Microphysics & Precipitation for Atlantic Coast-Threatening Snowstorms (IMPACTS)
ARC	Oct-20	REC	EV-3 Sub-Mesoscale Ocean Dynamics Experiment (S-MODE)
GSFC	Sep-12	REC	Ice, Cloud, and Land Elevation Satellite-2 (ICESat-2)
GSFC	Feb-13	REC	Joint Polar Satellite System
GSFC	Aug-17	REC	Landsat (L9)
WFF	May-19	REC	Conduct 13 Domestic Scientific Balloon Flights
LaRC	May-17	REC	Geostationary Carbon Cycle Observatory (GeoCarb) Mission

Center	Date	Document Type	Title
LaRC	Oct-20	REC	Low Earth Orbit Flight Test of an Inflatable Decelerator (LOFTID)
LaRC	Jun-18	REC	Time-Resolved Observation of Precipitation structure & storm Intensity with a Constellation of Smallsats (TROPICS)
GSFC	Jun-19	REC	Plankton, Aerosol, Cloud, ocean Ecosystem (PACE)

#### 4.7 CatEx 3(v)

**Proposed New CatEx Language:** *Return of samples from solar system bodies (e.g., asteroids, comets, planets, dwarf planets, and planetary moons) to Earth when categorized as an Unrestricted Earth Return. NASA defines this activity as collecting extraterrestrial materials from solar system bodies, deemed by scientific opinion to have no indigenous life forms, and returning those samples to Earth (REC required).*

#### **Support for the Addition of CatEx 3(v)**

This proposed new CatEx category would shift this category of action from “NASA actions normally requiring an EA” and would cover the return of samples categorized as an Unrestricted Earth Return (UER). Celestial bodies are classified based on their possibility of containing life as either UER or Restricted Earth Return (RER). The subcategory of solar system bodies identified to have no indigenous life forms (e.g., asteroids, comets, planets, dwarf planets, and planetary moons) are defined as UER by NASA’s Planetary Protection Office, within the Office of Safety and Mission Assurance (<https://sma.nasa.gov/sma-disciplines/planetary-protection>). Over the past decades, NASA has been conducting or contributing to UER missions and has found the environmental impacts from these activities not to be significant. Based on this extensive experience and past analysis, NASA has determined that this type of activity fits the definition of a CatEx. RER sample return missions are addressed in § 1216.306(b)(2) (no changes proposed in the NPRM).

#### **Previous Comparable Actions**

Based on NASA’s experience with these types of actions, as documented in the following examples of NASA NEPA compliance records and other environmental documentation, which have been completed and monitored by NASA environmental professional staff, these actions do not result in individually or cumulatively significant environmental impacts.

**Table 11 – CatEx 3(v): Previous Comparable Actions**

Center	Date	Document Type	Title
GSFC	Mar-13	EA	Origins Spectral Interpretation, Resource Identification, and Security-Regolith Explorer (OSIRIS-REx) EA
JPL	Apr-01	EA	Genesis Mission EA
JPL	May-98	EA	Stardust Mission EA
JSC	1969	Apollo Program Summary Report	Apollo 11 Mission

Center	Date	Document Type	Title
JSC	1969	Apollo Program Summary Report	Apollo 12 Mission
JSC	1971	Apollo Program Summary Report	Apollo 14 Mission
JSC	1971	Apollo Program Summary Report	Apollo 15 Mission
JSC	1972	Apollo Program Summary Report	Apollo 16 Mission
JSC	1972	Apollo Program Summary Report	Apollo 17 Mission

#### 4.8 CatEx 4(vi)

**Proposed New CatEx Language:** *Change in the facility status of real property assets (e.g., active or inactive).*

#### **Support for the Addition of CatEx 4(vi)**

This proposed new CatEx would cover temporary changes in facility status of real property assets between active and inactive. Inactive status assumes that the asset will be needed in the future, and the status change would not pose a significant environmental impact. The proposed CatEx would cover such a temporary status change. Currently, these types of activities are categorically excluded under § 1216.304(d)(2)(i). Establishing this distinct CatEx would improve tracking for NEPA purposes of real property actions.

#### **Previous Comparable Actions**

Based on NASA’s experience with these types of actions, as documented in the following examples of NASA NEPA compliance records and other environmental documentation, which have been completed and monitored by NASA environmental professional staff, these actions do not result in individually or cumulatively significant environmental impacts.

**Table 12 – CatEx 4(vi): Previous Comparable Actions**

Center	Date	Document Type	Title
MSFC	Nov-07	REC	Report to GSA - Santa Susana Field Laboratory is excess to NASA
GRC	Jun-18	Transfer and/or Notification of Acceptance of Accountability of Real Property Form	CCL Chemical Storage Building - Change from Active to Abandoned Status
KSC	Aug-19	REC	Abandon M6-0399 (Headquarters)
KSC	Dec-19	REC	Abandon Mobile Launcher Platform (MLP-2)
KSC	Dec-11	REC	Turn Over Crawlers, Transporters, and all CT Facility Group facilities to NASA



4.9 CatEx 4(vii)

**Proposed New CatEx Language:** *Reductions, realignments, or relocation of personnel into existing federally-owned or commercially leased space that does not involve a substantial change affecting the supporting infrastructure (e.g., no increase in vehicular traffic beyond the capacity of the supporting road network to accommodate such an increase).*

**Support for the Addition of CatEx 4(vii)**

This proposed new CatEx would cover shifting personnel within existing infrastructure at NASA locations. While all actions under the Real and Personal Property Activities include the potential for personnel reductions, realignments, and relocations, they did not specifically identify this aspect in the descriptions. This proposed CatEx would clarify that shifts or reductions in personnel are covered and avoids unnecessary analysis to support previous, repeated conclusions. Based on past experience, NASA has determined that its activities under this proposed CatEx would not result in significant environmental impacts.

For example, the two EAs in **Table 13** analyzed the potential environmental impacts related to construction and demolition with relocation of personnel and resulted in Finding of

No Significant Impacts (FONSI(s)).

**Previous Comparable Actions**

Based on NASA’s experience with these types of actions, as documented in the following examples of NASA NEPA compliance records and other environmental documentation, which have been completed and monitored by NASA environmental professional staff, these actions do not result in individually or cumulatively significant environmental impacts.

**Table 13 – CatEx 4(vii): Previous Comparable Actions**

Center	Date	Document Type	Title
GSFC	May-13	REC	Code 408 Relocation of Bldg. 12
WTSF	May-06	REC	Move Mail Services to Building 120
JPL	Dec-19	Environmental Checklist	Non-Renewal of Lease; Relocate Off-Site JPL Personnel Back to Main Campus
LaRC	May-19	Environmental Checklist	Building 2104 Transition
GRC	Jan-20	REC	Relocation of NASA Electric Aircraft Testbed (NEAT)
JPL	Jul-18	Environmental Checklist	Relocate Personnel from Building 89 Prior to Demolition

**5.0 Modified CatExs**

5.1 CatEx 1(ii)

**Existing CatEx Language:** *Issuance of procedural rules, manuals, directives, and requirements.*

**Proposed Modified CatEx Language:** *Issuing procedural rules, manuals, directives, and requirements.*

**Support for Updates to CatEx 1(ii)**

The proposed edit incorporates consistent grammar in the section.

**5.2 CatEx 1(iv)**

**Existing CatEx Language:** *Preparation of documents, including design and feasibility studies, analytical supply and demand studies, reports and recommendations, master and strategic plans, and other advisory documents.*

**Proposed Modified CatEx Language:** *Preparing documents, including design and feasibility studies, analytical supply and demand studies, reports and recommendations, master and strategic plans, and other advisory documents.*

**Support for Updates to CatEx 1(iv)**

The proposed edit incorporates consistent grammar in the section.

**5.3 CatEx 1(v)**

**Existing CatEx Language:** *Information-gathering exercises, such as inventories, audits, studies, and field studies, including water sampling, cultural resources surveys, biological surveys, geologic surveys, modeling or simulations, and routine data collection and analysis activities.*

**Proposed Modified CatEx Language:** *Information-gathering exercises, such as inventories, audits, and studies.*

**Support for Updates to CatEx 1(v)**

The proposed change separates this CatEx into two CatExs with the second becoming a new CatEx in § 216.304(d)(1)(ix) (see above). NASA is making this change to establish a clear distinction between administrative and field activities. The edit retains the text that applies to “information-gathering exercises” and updates the sentence to be grammatically correct.

**5.4 CatEx 1(vi)**

**Existing CatEx Language:** *Preparation and dissemination of information, including document mailings, publications, classroom materials, conferences, speaking engagements, Web sites, and other educational/informational activities.*

**Proposed Modified CatEx Language:** *Preparing and disseminating information, including document mailings, publications, classroom materials, conferences, speaking engagements, Web sites, and other educational/informational activities.*

**Support for Updates to CatEx 1(vi)**

The proposed edits incorporate consistent grammar in the section.

**5.5 CatEx 2(i)**

**Existing CatEx Language:** *Routine maintenance, minor construction or rehabilitation, minor demolition, minor modification, minor repair, and continuing or altered operations at, or of, existing NASA or NASA-*



*funded or -approved facilities and equipment, such as buildings, roads, grounds, utilities, communication systems, and ground support systems, such as space tracking and data systems.*

**Proposed Modified CatEx Language:** *Routine maintenance, minor construction or rehabilitation, minor demolition, minor modification, minor repair, and continuing or altered operations at, or of, existing NASA or NASA-funded or -approved facilities and equipment, such as buildings, roads, grounds, utilities, communication systems, and ground support systems (e.g., such as space tracking and data systems). This includes routine operations such as security, safety, and environmental services.*

#### **Support for Updates to CatEx 2(ii)**

NASA proposed to add examples of routine operations at the end of the CatEx description to further clarify the types of activities addressed with this CatEx.

#### **5.6 CatEx 2(ii)**

**Existing CatEx Language:** *Installation or removal of equipment, including component parts, at existing Government or private facilities.*

**Proposed Modified CatEx Language:** *Installing or removing equipment, including component parts, at existing Government or private facilities.*

#### **Support for Updates to CatEx 2(ii)**

The proposed edits incorporate consistent grammar in the section.

#### **5.7 CatEx 2(iii)**

**Existing CatEx Language:** *Contribution of equipment, software, technical advice, exchange of data, and consultation to other agencies and public and private entities, where such assistance does not control a receiving entity's program, project, or activity.*

**Proposed Modified CatEx Language:** *Contributing equipment, software, technical advice, exchanging data, and consulting with other agencies and public and private entities.*

#### **Support for Updates to CatEx 2(iii)**

The proposed edits incorporate consistent grammar in the section.

#### **5.8 CatEx 2(v)**

**Existing CatEx Language:** *Routine packaging, labeling, storage, and transportation of hazardous materials and wastes, in accordance with applicable Federal, federally recognized Indian tribe, State, and/or local law or requirements.*

**Proposed Modified CatEx Language:** *Routine packaging, labeling, storage, transportation, and disposal of materials and wastes, in accordance with applicable Federal, State, Tribal or local laws or requirements. Examples include, but are not limited to: hazardous, non-hazardous, and other regulated materials and wastes.*

#### **Support for Updates to CatEx 2(v)**

The proposed change clarifies that routine disposal of materials and wastes in accordance with applicable requirements is included in this CatEx. It would also add examples at the end of the CatEx description to further clarify the types of activities addressed with this CatEx.

### 5.9 CatEx 3(i)

**Existing CatEx Language:** *Research, development, and testing in compliance with all applicable Federal, federally recognized Indian tribe, State, and/or local law or requirements and Executive orders.*

**Proposed Modified CatEx Language:** *Research, development, testing, and evaluation in compliance with all applicable Federal, State, Tribal, or local laws or requirements and Executive Orders. This includes the research, development, testing, and evaluation of scientific instruments proposed for use on spacecraft, aircraft (including unmanned aircraft systems), sounding rockets, balloons, laboratories, watercraft, or other outdoor activities.*

### **Support for Updates to CatEx 3(i)**

NASA proposes to add a sentence with a list of examples at the end of the CatEx to further clarify the types of research, development, testing, and evaluation activities that this CatEx covers.

### 5.10 CatEx 3(ii)

**Existing CatEx Language:** *Use of small quantities of radioactive materials in a laboratory or in the field. Uses include material for instrument detectors, calibration, and other purposes. Materials must be licensed, as required, and properly contained and shielded.*

**Proposed Modified CatEx Language:** *Use of small quantities of radioactive materials used for instrument detectors, calibration, and other purposes. Materials must be licensed, as required, and properly contained and shielded. Materials may be associated with the proposed use on spacecraft, aircraft (including unmanned aircraft systems), sounding rockets, balloons, laboratories, watercraft, or other outdoor activities.*

### **Support for Updates to CatEx 3(ii)**

The proposed change would streamline the description of small quantities of radioactive materials use included in this CatEx. NASA proposes to add a list of examples at the end of the CatEx description to further clarify where low level and small quantity radioactive materials may potentially be used.

### 5.11 CatEx 3(iii)

**Existing CatEx Language:** *Use of lasers for research and development, scientific instruments and measurements, and distance and ranging, where such use meets all applicable Federal, federally recognized Indian tribe, State, and/or local law or requirements, and Executive orders. This applies to lasers used in spacecraft, aircraft, laboratories, watercraft, or outdoor activities.*

**Proposed Modified CatEx Language:** *Use of lasers for research and development, scientific instruments and measurements, and distance and ranging, where such use meets all applicable Federal, State, Tribal, or local laws or requirements, and Executive Orders. This includes lasers associated with spacecraft, aircraft (including unmanned aircraft systems), sounding rockets, balloons, laboratories, watercraft, or outdoor activities.*

### **Support for Updates to CatEx 3(iii)**

The proposed edits would add examples of laser uses to further clarify the types of activities this CatEx covers.

#### 5.12 CatEx 4(ii)

**Existing CatEx Language:** *Granting or acceptance of easements, leases, licenses, rights-of-entry, and permits to use NASA-controlled property, or any other real property, for activities which, if conducted by NASA, would be categorically excluded in accordance with this section. This assumes that NASA has included any required notices in transfer documentation and any terms and conditions necessary to ensure protection of the environment, as applicable (Record of Environmental Consideration (REC) required).*

**Proposed Modified CatEx Language:** *Granting or accepting easements, leases, licenses, rights-of-entry, and permits to use NASA property, or any non-NASA property, for activities that would be categorically excluded in accordance with this section. (REC required).*

### **Support for Updates to CatEx 4(ii)**

The proposed edits would incorporate a previously defined acronym, improve grammar, and streamline text.

#### 5.13 CatEx 4(iii)

**Existing CatEx Language:** *Transfer or disposal of real property or real property rights or interests if the change in use is one which, if conducted by NASA, would be categorically excluded in accordance with this section (REC required).*

**Proposed Modified CatEx Language:** *Transfer or disposal of real property, property rights, or interests if a resulting change in use is a use that would be categorically excluded under this section (REC required).*

### **Support for Updates to CatEx 4(iii)**

The proposed edits would streamline text.

#### 5.14 CatEx 4(iv)

**Existing CatEx Language:** *Transfer of real property administrative control to another Federal agency, including the return of public domain lands to the Department of the Interior (DoI) or other Federal agencies, and reporting of property as excess and surplus to the General Services Administration (GSA) for disposal, when the agency receiving administrative control (or GSA, following receipt of a report of excess) will complete any necessary NEPA review prior to any change in land use (REC required).*

**Proposed Modified CatEx Language:** *Transferring real property administrative control to another Federal agency, including the return of public domain lands to the Department of the Interior (DoI) or other Federal agencies, and reporting of property as excess and surplus to the General Services Administration (GSA) for disposal, when the agency receiving administrative control (or GSA, following receipt of a report of excess) shall complete any necessary NEPA review prior to any change in land use (REC required).*

### **Support for Updates to CatEx 4(iv)**

The proposed edits would incorporate consistent grammar in the section.

#### 5.15 CatEx 5(i)

**Existing CatEx Language:** *Periodic aircraft flight activities, including training and research and development, which are routine and comply with applicable Federal, federally recognized Indian tribe, State, and/or local law or requirements, and Executive orders.*

**Proposed Modified CatEx Language:** *Periodic aircraft (including unmanned aircraft systems) flight activities, including training and research and development, which are routine and comply with applicable Federal, State, Tribal, or local laws or requirements, and Executive Orders.*

#### **Support for Updates to CatEx 5(i)**

The proposed change would clarify that unmanned aircraft systems are included as aircraft.

#### 5.16 CatEx 5(ii)

**Existing CatEx Language:** *Relocation of similar aircraft not resulting in a substantial increase in total flying hours, number of aircraft operations, operational parameters (e.g., noise), or permanent personnel or logistics support requirements at the receiving installation (REC required).*

**Proposed Modified CatEx Language:** *Relocation of similar aircraft (including unmanned aircraft systems) not resulting in a substantial increase in total flying hours, number of aircraft operations, operational parameters (e.g., noise), or permanent personnel or logistics support requirements at the receiving installation (REC required).*

#### **Support for Updates to CatEx 5(ii)**

The proposed change would clarify that unmanned aircraft systems are included as aircraft.

## Appendix A – Summary of Proposed Updates & Existing CatExs

Number of CatExs	CFR	Existing CatEx	Proposed CatEx	Explanation
	§1216.304 (d)	(d) Specific NASA actions meeting the criteria for being categorically excluded from the requirements for EAs and EISs are as follows:	(d) The following actions normally do not have a significant effect on the human environment and are categorically excluded from the requirement to prepare an EA or EIS:	Text clarification
	§1216.304 (d)(1)	(1) Administrative Activities including:	(1) Administrative Activities including:	No change
1	§1216.304 (d)(1)(i)	(i) Personnel actions, organizational changes, and procurement of routine goods and services.	(i) Personnel actions, organizational changes, and procurement of routine goods and services.	No change
2	§1216.304 (d)(1)(ii)	(ii) Issuance of procedural rules, manuals, directives, and requirements.	(ii) Issuing procedural rules, manuals, directives, and requirements.	Text clarification
3	§1216.304 (d)(1)(iii)	(iii) Program budget proposals, disbursements, and transfer or reprogramming of funds.	(iii) Program budget proposals, disbursements, and transfer or reprogramming of funds.	No change
4	§1216.304 (d)(1)(iv)	(iv) Preparation of documents, including design and feasibility studies, analytical supply and demand studies, reports and recommendations, master and strategic plans, and other advisory documents.	(iv) Preparing documents, including design and feasibility studies, analytical supply and demand studies, reports and recommendations, master and strategic plans, and other advisory documents.	Text clarification
5	§1216.304 (d)(1)(v)	(v) Information-gathering exercises, such as inventories, audits, studies, and field studies, including water sampling, cultural resources surveys, biological surveys, geologic surveys, modeling or simulations, and routine data collection and analysis activities.	(v) Information-gathering exercises, such as inventories, audits, and studies.	Field work shifted to (ix)
6	§1216.304 (d)(1)(vi)	(vi) Preparation and dissemination of information, including document mailings, publications, classroom materials, conferences,	(vi) Preparing and disseminating information, including document mailings, publications, classroom materials, conferences, speaking	Text clarification

Number of CatExs	CFR	Existing CatEx	Proposed CatEx	Explanation
		speaking engagements, Web sites, and other educational/informational activities.	engagements, Web sites, and other educational/informational activities.	
7	§1216.304 (d)(1)(vii)	(vii) Software development, data analysis, and/or testing, including computer modeling.	(vii) Software development, data analysis, and/or testing, including computer modeling.	No change
8	§1216.304 (d)(1)(viii)	(viii) Interpretations, amendments, and modifications to contracts, grants, or other awards.	(viii) Interpretations, amendments, and modifications to contracts, grants, or other awards.	No change
9	N/A	N/A	(ix) Field studies, including water sampling, monitoring wells, cultural resources surveys, biological surveys, geologic surveys, modeling or simulations, routine data collection and analysis, and/or temporary equipment.	New CatEx (separated from (v))
	§1216.304 (d)(2)	(2) Operations and Management Activities including:	(2) Operations and Management Activities including:	No change
10	§1216.304 (d)(2)(i)	(i) Routine maintenance, minor construction or rehabilitation, minor demolition, minor modification, minor repair, and continuing or altered operations at, or of, existing NASA or NASA-funded or -approved facilities and equipment, such as buildings, roads, grounds, utilities, communication systems, and ground support systems, such as space tracking and data systems.	(i) Routine maintenance, minor construction or rehabilitation, minor demolition, minor modification, minor repair, and continuing or altered operations at, or of, existing NASA or NASA-funded or -approved facilities and equipment, such as buildings, roads, grounds, utilities, communication systems, and ground support systems (e.g., such as space tracking and data systems). This includes routine operations such as security, safety, and environmental services.	Text clarification
11	§1216.304 (d)(2)(ii)	(ii) Installation or removal of equipment, including component parts, at existing Government or private facilities.	(ii) Installing or removing equipment, including component parts, at existing Government or private facilities.	Text clarification
12	§1216.304 (d)(2)(iii)	(iii) Contribution of equipment, software, technical advice, exchange of data, and consultation to other agencies and public and	(iii) Contributing equipment, software, technical advice, exchanging data, and	Text clarification

Number of CatExs	CFR	Existing CatEx	Proposed CatEx	Explanation
		private entities, where such assistance does not control a receiving entity’s program, project, or activity.	consulting with other agencies and public and private entities.	
13	§1216.304 (d)(2)(iv)	(iv) NASA ceremonies, commemorative events, and memorial services.	(iv) NASA ceremonies, commemorative events, and memorial services.	No change
14	§1216.304 (d)(2)(v)	(v) Routine packaging, labeling, storage, and transportation of hazardous materials and wastes, in accordance with applicable Federal, federally recognized Indian tribe, State, and/or local law or requirements.	(v) Routine packaging, labeling, storage, transportation, and disposal of materials and wastes, in accordance with applicable Federal, State, Tribal or local laws or requirements. Examples include, but are not limited to: hazardous, non-hazardous, and other regulated materials and wastes.	Text clarification
15	N/A	N/A	(vi) Habitat and species management activities conducted within the boundaries of NASA controlled properties in accordance with applicable Federal, State, or local requirements. Examples include but are not limited to restoration of unique or critical habitat; thinning or brush control to improve growth of natural habitat, reduce invasive species, or to reduce fire hazard; prescribed burning to reduce natural fuel build-up, reduce invasive species, or improve native plant vigor; planting appropriate vegetation, which does not include noxious weeds or invasive plants; or wildlife management activities. (REC required)	New CatEx
16	N/A	N/A	(vii) Small-scale, short-term cleanup actions under the Resource Conservation and Recovery Act or other authorities, to reduce risk to human health or the environment from	New CatEx



Number of CatExs	CFR	Existing CatEx	Proposed CatEx	Explanation
			the release or imminent and substantial threat of release of a hazardous substance other than high-level radioactive waste and spent nuclear fuel, including treatment (such as incineration, encapsulation, physical or chemical separation, and compaction), recovery, storage, or disposal of wastes at existing facilities currently handling the type of waste involved in the action.	
17	N/A	N/A	(viii) Replacement of existing energy sources with alternative or renewable energy sources that comply with existing permit conditions.	New CatEx
18	N/A	N/A	(ix) Routine maintenance, repair, and operation of vessels (including unmanned autonomous surface vessels), aircraft (including unmanned aircraft systems), overland/surface transportation vehicles, and other transportation systems as applicable. Examples include, but are not limited to: transportation or relocation of NASA equipment and hardware by barge, aircraft or surface transportation system (e.g., tractor trailer or railroad); retrieval of spent solid rocket boosters by vessel; repair or overhaul of vessel, aircraft or surface transportation systems that do not result in a change in the environmental impacts of their normal operation.	New CatEx
	§1216.304 (d)(3)	(3) Research and Development (R&D) Activities including:	(3) Research, Development, and Science Activities including:	Text clarification



Number of CatExs	CFR	Existing CatEx	Proposed CatEx	Explanation
19	§1216.304 (d)(3)(i)	(i) Research, development, and testing in compliance with all applicable Federal, federally recognized Indian tribe, State, and/or local law or requirements and Executive orders.	(i) Research, development, testing, and evaluation in compliance with all applicable Federal, State, Tribal, or local laws or requirements and Executive Orders. This includes the research, development, testing, and evaluation of scientific instruments proposed for use on spacecraft, aircraft (including unmanned aircraft systems), sounding rockets, balloons, laboratories, watercraft, or other outdoor activities.	Text clarification
20	§1216.304 (d)(3)(ii)	(ii) Use of small quantities of radioactive materials in a laboratory or in the field. Uses include material for instrument detectors, calibration, and other purposes. Materials must be licensed, as required, and properly contained and shielded.	(ii) Use of small quantities of radioactive materials used for instrument detectors, calibration, and other purposes. Materials must be licensed, as required, and properly contained and shielded. Materials may be associated with the proposed use on spacecraft, aircraft (including unmanned aircraft systems), sounding rockets, balloons, laboratories, watercraft, or other outdoor activities.	Text clarification
21	§1216.304 (d)(3)(iii)	(iii) Use of lasers for research and development, scientific instruments and measurements, and distance and ranging, where such use meets all applicable Federal, federally recognized Indian tribe, State, and/or local law or requirements, and Executive orders. This applies to lasers used in spacecraft, aircraft, laboratories, watercraft, or outdoor activities.	(iii) Use of lasers for research and development, scientific instruments and measurements, and distance and ranging, where such use meets all applicable Federal, State, Tribal, or local laws or requirements, and Executive Orders. This includes lasers associated with spacecraft, aircraft (including unmanned aircraft systems), sounding rockets, balloons, laboratories, watercraft, or outdoor activities.	Text clarification

Number of CatExs	CFR	Existing CatEx	Proposed CatEx	Explanation
22	N/A	N/A	(iv) Use of payloads on a launch vehicle, sounding rocket, scientific balloon, or other platform (REC required).	New CatEx
23	N/A	N/A	(v) Return of samples from solar system bodies (e.g., asteroids, comets, planets, dwarf planets, and planetary moons) to Earth when categorized as an Unrestricted Earth Return. NASA defines this activity as collecting extraterrestrial materials from solar system bodies, deemed by scientific opinion to have no indigenous life forms, and returning those samples to Earth (REC required).	New CatEx
	§1216.304 (d)(4)	(4) Real and Personal Property Activities including:	(4) Real and Personal Property Activities including:	No change
24	§1216.304 (d)(4)(i)	(i) Acquisition, transfer, or disposal of any personal property, or personal property rights or interests.	(i) Acquisition, transfer, or disposal of any personal property, or personal property rights or interests.	No change
25	§1216.304 (d)(4)(ii)	(ii) Granting or acceptance of easements, leases, licenses, rights-of-entry, and permits to use NASA-controlled property, or any other real property, for activities which, if conducted by NASA, would be categorically excluded in accordance with this section. This assumes that NASA has included any required notices in transfer documentation and any terms and conditions necessary to ensure protection of the environment, as applicable (Record of Environmental Consideration (REC) required).	(ii) Granting or accepting easements, leases, licenses, rights-of-entry, and permits to use NASA property, or any non-NASA property, for activities that would be categorically excluded in accordance with this section. (REC required).	Text clarification
26	§1216.304 (d)(4)(iii)	(iii) Transfer or disposal of real property or real property rights or interests if the change in use is one which, if conducted by NASA, would be	(iii) Transfer or disposal of real property, property rights, or interests if a resulting change in use is a use that would be	Text clarification

Number of CatExs	CFR	Existing CatEx	Proposed CatEx	Explanation
		categorically excluded in accordance with this section (REC required).	categorically excluded under this section (REC required).	
27	§1216.304 (d)(4)(iv)	(iv) Transfer of real property administrative control to another Federal agency, including the return of public domain lands to the Department of the Interior (DoI) or other Federal agencies, and reporting of property as excess and surplus to the General Services Administration (GSA) for disposal, when the agency receiving administrative control (or GSA, following receipt of a report of excess) will complete any necessary NEPA review prior to any change in land use (REC required).	(iv) Transferring real property administrative control to another Federal agency, including the return of public domain lands to the Department of the Interior (DoI) or other Federal agencies, and reporting of property as excess and surplus to the General Services Administration (GSA) for disposal, when the agency receiving administrative control (or GSA, following receipt of a report of excess) shall complete any necessary NEPA review prior to any change in land use (REC required).	Text clarification
28	§1216.304 (d)(4)(v)	(v) Acquisition of real property (including facilities) where the land use will not change substantially (REC required).	(v) Acquisition of real property (including facilities) where the land use will not change substantially (REC required).	No change
29	N/A	N/A	(vi) Change in the facility status of real property assets (e.g., active or inactive).	New CatEx
30	N/A	N/A	(vii) Reductions, realignments, or relocation of personnel into existing federally-owned or commercially leased space that does not involve a substantial change affecting the supporting infrastructure (e.g., no increase in vehicular traffic beyond the capacity of the supporting road network to accommodate such an increase).	New CatEx
	§1216.304 (d)(5)	(5) Aircraft and Airfield Activities including:	(5) Aircraft and Airfield Activities including:	No change
31	§1216.304 (d)(5)(i)	(i) Periodic aircraft flight activities, including training and research and development, which are routine and comply with applicable	(i) Periodic aircraft (including unmanned aircraft systems) flight activities, including training and research and development, which	Added UAS

Number of CatExs	CFR	Existing CatEx	Proposed CatEx	Explanation
		Federal, federally recognized Indian tribe, State, and/or local law or requirements, and Executive orders.	are routine and comply with applicable Federal, State, Tribal, or local laws or requirements, and Executive Orders.	
32	§1216.304 (d)(5)(ii)	(ii) Relocation of similar aircraft not resulting in a substantial increase in total flying hours, number of aircraft operations, operational parameters (e.g., noise), or permanent personnel or logistics support requirements at the receiving installation (REC required).	(ii) Relocation of similar aircraft (including unmanned aircraft systems) not resulting in a substantial increase in total flying hours, number of aircraft operations, operational parameters (e.g., noise), or permanent personnel or logistics support requirements at the receiving installation (REC required).	Added UAS

## Appendix B – NEPA Working Group Members

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