# *NASA Planetary Protection Processes for OSIRIS-REx*

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**March 20, 2024**
**NASEM CoPP Space Sciences Week**
**Washington DC**

# Categorization & Requirements

- OSIRIS-REx Forward PP: Category II
  - Requirements include impact avoidance and documentation of organic inventory
  - Contamination control and science sample return were the driving requirements
- OSIRIS-REx Backward PP: Category V(u) Unrestricted Earth Return
  - No additional PP requirements for Earth return
- OSIRIS-APEX Forward PP: Category II
  - Captured in OSIRIS-REx Extended Mission PP Report rationale for PP Cat II for orbit around asteroid Aphophis

*NPR 8715.24 Table 3.1- PP Documentation Authorities*

<table>
<tr><th rowspan="3">Planetary Protection Documentation</th><th colspan="6">Planetary Protection Mission Category</th></tr>
<tr><th colspan="4">Outbound</th><th colspan="2">Inbound</th></tr>
<tr><th>I</th><th>II</th><th>III</th><th>IV</th><th>V(r)</th><th>V(u)</th></tr>
<tr><td>Final PP Mission Categorization</td><td colspan="2">Concurrence from PPO</td><td colspan="3">Concurrence from Chief, SMA based on recommendations from PPO</td><td rowspan="8">Refer to outbound planetary protection mission category for concurrence authority</td></tr>
<tr><td>PP Requirements Document</td><td rowspan="7">None required</td><td rowspan="7">Concurrence from PPO</td><td colspan="3">Concurrence from Chief, SMA based on recommendations from PPO</td></tr>
<tr><td>PP Implementation Plan</td><td colspan="3">Concurrence from PPO</td></tr>
<tr><td>Pre-Launch PP Report</td><td colspan="3" rowspan="4">Concurrence from Chief, SMA based on recommendations from PPO</td></tr>
<tr><td>Post-Launch PP Report</td></tr>
<tr><td>Extended Mission PP Report</td></tr>
<tr><td>End of Mission PP Report</td></tr>
</table>

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## OSIRIS REx Sample Return Doesn't Pose a Risk to Earth's Biosphere

SEPTEMBER 08, 2023 // PLANETARY PROTECTION

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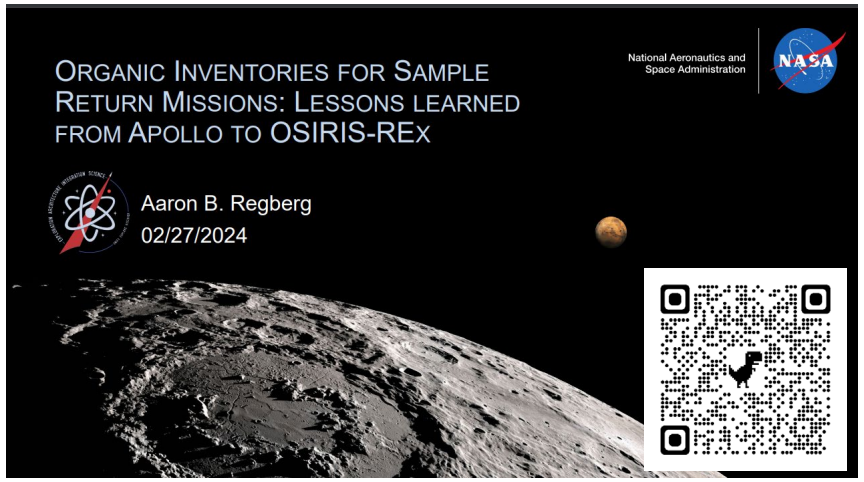
When OSIRIS-REx returns a sample of the asteroid Bennu to Earth on September 24, 2023, it will kick off a carefully orchestrated retrieval process. One thing the retrieval team won't need to worry about is protecting Earth and its inhabitants from the sample.

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ORIGINAL RESEARCH
published: 05 November 2020
doi: 10.3389/fmicb.2020.530661

## Prokaryotic and Fungal Characterization of the Facilities Used to Assemble, Test, and Launch the OSIRIS-REx Spacecraft

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## OSIRIS-REx Contamination Control Strategy and Implementation

Published: 13 December 2017

Volume 214, article number 19, (2018) Cite this article