

Open Payments System Quick Reference Guide

Identifying Validation and Matching Errors

Introduction

This quick reference guide provides a high-level overview of how to identify errors in data submitted to the Open Payments system by applicable manufacturers and applicable group purchasing organizations (GPOs), hereafter collectively referred to as “reporting entities”. To determine the steps needed to correct the errors, refer to the “Correcting Validation and Matching Errors” quick reference guide available on the Resources page of the Open Payments website (<https://www.cms.gov/OpenPayments/Resources>).

Prerequisites

- User is registered in Centers for Medicare & Medicaid Services (CMS) Identity Management system (IDM) and has obtained access to the Open Payments system.
- Reporting entity is registered in the Open Payments system.
- Reporting entity has recertified in the Open Payments system, if necessary.
- User who identifies errors holds the submitter user role for the reporting entity.

Actions

Understanding Validation Steps

Records submitted to the Open Payments system must pass several validation steps to become eligible for final submission and attestation. They are described below,



Step 1: File Validation

- Step 1 and Step 2 validations are applied only to bulk file uploads.
- Bulk files undergo file validations at upload:
 - Validations of the file itself (e.g., file size and format, number of columns, etc.); and

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- Validations of the upload process (e.g., payment category selected at file upload matches payment category of file, etc.).
- A list of file validations is available in the “Record Validation and Matching” section of the Open Payments User Guide for Reporting Entities.

Step 2: Pre-Upload Record Validation & Step 3: Record Validation

- Step 2 validations are performed only on records submitted via bulk file upload before the records are saved into the Open Payments system.
- Step 3 validations are performed on records submitted via bulk file upload after the record is saved. Records submitted manually undergo step 3 validations during the record entry process.
- In both steps, individual records are checked to determine their validity, including whether:
 - All required fields are populated;
 - The information in each field meets the formatting and data input requirements of that field;
 - If the record is submitted to change an existing record (i.e., the record is a resubmission or is intended to delete or renew the delay in publication of an existing record), an original version of the record exists within the Open Payments system.
- Record field requirements are detailed in the Submission Data Mapping Documents. Refer to the Submission Data Mapping Document that corresponds to the record’s program year.

Step 4: Matching Validation

- The Open Payments system matches the covered recipient identifying information in individual records (e.g., Physician or Non-Physician Practitioner (NPP) First Name, Teaching Hospital Address, etc.) with valid covered recipients using existing CMS resources and information.
- If the information in a record cannot be matched, the record will fail matching validation.
- Records containing physician licenses that were valid after August 1, 2013 (start date of data collection for the Open Payments program) but were expired during the entirety of the program year of the record will trigger warnings to the user but will not fail matching due to the expired licenses.
- Records containing non-physician practitioner licenses that were valid after January 1, 2021 but were expired during the entirety of the program year of the record will trigger warnings to the user but will not fail matching due to the expired licenses.

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- More information on matching is available in the “Record Validation and Matching” section of the Open Payments User Guide for Reporting Entities.

The Open Payments User Guide for Reporting Entities and the Submission Data Mapping Documents are available on the Resources page of the Open Payments website (<https://www.cms.gov/OpenPayments/Resources>).

Identifying Errors – Bulk File Upload

Errors in files or records submitted via the bulk file upload process are communicated to submitters via notification emails. Users can also review submitted file(s) statuses on the “Review File Status” page.

Review File Status Page

1. Log in to the Open Payments system via the CMS Enterprise Portal at <https://portal.cms.gov/>.
2. Select the “Submissions” tab on the menu bar. Under the “Review Submitted File(s) Status” section of the page, select “Review File Status” button.
3. The “Review File Status” page is displayed with additional search criteria and File Table.
4. Users can search by the following File Processing Statuses: In Process, Rejected, Submitted Successfully, Submitted with Errors, Processed with Warning, System Failure Occurred, Rejected - File Infected, or Deleted.

To see more details about the file upload statuses and their definitions, refer to the Open Payments User Guide for Reporting Entities or the “Bulk File Upload” quick reference guide available on the Resources page of the Open Payments website (<https://www.cms.gov/OpenPayments/Resources>).

Determining the Step Where the Error Occurred

The step of the validation process that the file or records that failed can be determined by the format of the notification email, or by reviewing the file upload status on the “Review File Status” page.

- **File Validation failure (Step 1):** The email describes a file validation failure, the reason for the failure, and, if applicable, the line number of the submitted data file where the failure occurred. Files that fail at this step will have a status of “Rejected” on the “Review Files Status” page. Step 1 validations stop upon finding an error.
- **Pre-Upload Record Validation failure (Step 2):** The email lists the reasons for record rejections, the number of records in the file that failed for each reason, and identifies up to a set number of records for each rejection reason. Files with records that meet these criteria will have a status of “Submitted with Errors” on the “Review File Status” page.

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- **Record Validation failure (Step 3):** The email explains that the file has been processed, and one or more records were found to contain validation errors. The email also provides instructions for locating the Error Log which lists the errors found in the records. Files with records that meet this criteria will have a status of “Submitted with Errors” on the “Review File Status” page.
- **Matching Validation failure (Step 4):** The email explains that records were submitted successfully, but they may contain records in Failed Matching status or records with Warnings. Files with records that meet this criteria will have a status of “Submitted Successfully” or “Processed with Warnings” on the “Review File Status” page.

Note that if a bulk file submission makes it past Step 1, all of the records within the file are checked individually for Steps 2-4. A bulk file that passes Step 1 might include records that fail at Step 2, records that fail at Step 3, records that fail at Step 4, and records that upload successfully. In that scenario, the submitter would receive multiple notification emails.

If Errors Occur During File Validation (Step 1):

If a file fails initial validation (Step 1), the entire file will be rejected. No records in the file will be saved in the Open Payments system.

The submitter will need to correct the error and reload the file to continue with processing. Refer to the “Correcting Validation and Matching Errors” quick reference guide for more information.

If Errors Occur During Pre-Upload Record Validation (Step 2)

Records that fail pre-upload validation checks (Step 2) will not be saved in the Open Payments system. The notification email will state the reasons for record failures, the number of records from the file that failed for each reason, and up to a set number of Record ID numbers of records that failed for each reason.

Contact the Open Payments Help Desk for the complete list of records rejected for that reason.

Records with Step 2 errors are not loaded into the Open Payments system. They will not be available for review or correction within the Open Payments system, nor will they appear in an error log. The submitter will need to correct record errors and resubmit the records. Refer to the “Correcting Validation and Matching Errors” quick reference guide for information and further instructions.

If Errors Occur During Record Validation (Step 3) or Matching Validation (Step 4)

Records that fail Steps 3 or 4 will be saved within the Open Payments system and can be reviewed and edited within the system. The notification email for record failure of Steps 3 or 4 contains instructions on locating and downloading an Error Log that lists and details those errors.

Another method to identify records that failed Steps 3 and 4 is by searching within the Open Payments system. To do so, follow the steps below:

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1. Log in to the Open Payments system via the CMS Enterprise Portal at <https://portal.cms.gov/> and select the “Submissions” tab on the toolbar.
2. On the “Review Records - Summary” section, select the entity and program year for the records to be reviewed, then select the “Review Summary” button. On the “Review Records - Summary” page, find the payment category (general, research, or ownership/investment) of the record(s) to be reviewed, and then select the “View All” button. All records submitted for the reporting entity for that payment category and program year will display on the selected Payment Category page. Use the filters for “Record Status” to search for records in a “Failed Validation” and/or “Failed Matching” statuses.
 - “Failed Validation” means that the data in at least one field in the record does not match the required formatting or data reference validations for that field.
 - “Failed Matching” means that the covered recipient information in the record cannot be matched to a valid covered recipient physician (including principal investigators) or covered recipient non-physician practitioner (including principal investigators) or teaching hospital.

To **view a file’s upload status** on the “File ID” page and to **download an Error/Warning Log** for records that failed Steps 3 or 4 and interpret the error/warning codes it contains:

1. Go to the table at the bottom of the Payment Category page. Select the hyperlink in the “File ID” column of a record to be examined, which opens the “File ID” page.
2. Check the file’s upload status on the “File ID” page. One of three statuses will be given:
 - a. **Submitted with Errors** – The file is uploaded successfully but one or more of the records from the file are in “Failed Validation” status.
 - b. **Processed With Warning** – The file contains records with late submission and/or expired license warning. Users don’t need to take any action for late submission warning, however, they can correct or delete records with expired license warning. If it is confirmed that the information is valid, the record can continue through final submission without further updates.
 - c. **Submitted Successfully** – The file uploaded successfully. It may contain record(s) with “Failed Matching” errors, since matching occurs after a file is successfully submitted. An error log will be generated for a file that contains records that failed validations or matching. A warning log will be generated for a file that contains records that generate warnings.

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3. On the “File ID” page, select the “Error Log” hyperlink at the bottom of the page to download the error log (or) select the “Warning Log” hyperlink at the bottom of the page to download the warning log.
4. In the error log file, note the error code displayed in the “Error Message ID” column for each error. For data elements that have multiple fields and may contain multiple values (e.g., physician/NPP license) the error log file column “Data Element Value” displays the specific value that produced the error.
5. In the warning log file, note the warning code displayed in the “Warning Message ID” column for each warning. For data elements that have multiple fields and may contain multiple values (e.g., physician/NPP license) the warning log file column “Data Element Value” displays the specific value that produced the warning.
6. Consult the Error and Warning Code Key, which is available on the Resources page of the Open Payments website at <https://www.cms.gov/OpenPayments/Resources> or within the Open Payments system by selecting the “Resources” tab to interpret the Error/Warning Message IDs and find steps to correct the errors.

If a record fails matching (Step 4), details of the failure in that individual record can be seen on the specific record within the Open Payments system. To do so:

1. Go to the table at the bottom of the Payment Category page and find the record to be examined. Select the hyperlink in the “Record ID” column for the record or select the “View” hyperlink under the “Actions” column for that record to go to the record’s “Record ID” page.
2. On the “Record ID” page, error messages for the record will be displayed at the top of the page. Error messages associated with data elements that can contain multiple values, such as physician license, will identify the specific value that produced the error in parentheses after the error message.

Correct record errors and resubmit the records. Refer to the “Correcting Validation and Matching Errors” quick reference guide for more information. Records that have warnings but passed validation and matching are processed successfully but should be reviewed for accuracy. If the data is determined to be accurate, no further action on the records is required before proceeding to final submission.

Identifying Manual Entry Errors

Records entered manually do not undergo Step 1 or Step 2 validations. Step 3 validations are applied during the manual data entry process, and any failures of Step 3 will trigger on-screen error messages. Manual entry of a record cannot be completed until all Step 3 errors are resolved.

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Once a manually entered record has been submitted, it undergoes Step 4 validations. Records that fail Step 4 validations will not trigger a notification email. To find if a manually entered record failed Step 4 validations, search in the Open Payments system for records that failed matching validation. To search the Open Payments system to find which records failed Step 4, follow the steps below:

1. Log in to the Open Payments system via the CMS Enterprise Portal at <https://portal.cms.gov/> and select the “Submissions” tab on the toolbar.
2. On the “Review Records - Summary” page, find the payment category (general, research, or ownership/investment) of the record(s) to be reviewed, and then select the “View All” button. All records submitted for the reporting entity for that payment category and program year will display on the selected Payment Category page.
3. On the Payment Category page, use the filters for “Record Status” to search for records in a “Failed Matching” status.

To see details of the failure in the individual record in the Open Payments system, follow the steps below:

1. Go to the table at the bottom of the Payment Category page, which will now be filtered for failed records per the process above. Select the hyperlink in the “Record ID” column for a record or select the “View” hyperlink under the “Actions” column for that record to go to the record’s “Record ID” page.
2. On the “Record ID” page, error messages and warnings for the record will be displayed at the top of the page. Error messages and warnings associated with data elements that can contain multiple values, such as physician/NPP license, will identify the specific value that produced the error in parentheses after the error message.



Next Steps

- Correct, resubmit, and delete records as needed.
- Submit records for attestation

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Additional Resources

All data submission resources and the 'Error and Warning Code Key' are available on the Resources page of the Open Payments website at (<https://www.cms.gov/OpenPayments/Resources>).

The "Data Submission and Attestation" section of the Open Payments User Guide for Reporting Entities, covers the entire data submission process in detail and provides step-by-step instructions for various scenarios.

Quick reference guides relevant to identifying and correcting errors and next steps include:

- Data Submission Documents and Resources
- Bulk File Upload
- Manual Data Entry
- Correcting Validation and Matching Errors
- Requesting or Updating a Delay in Publication
- Record Deletion
- Final Submission and Attestation
- Review and Dispute Timing and Data Publication

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Disclosure

- **Disclaimer:** The contents of this document do not have the force and effect of law and are not meant to bind the public in any way, unless specifically incorporated into a contract. This document is intended only to provide clarity to the public regarding existing requirements under the law.
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