3 HR Data Feed

3.1 Revision Sheet

Chapter Release No.	Date	HR Revision Description
1.0	06/30/2004	Initial version released to OPM EHRI Program Office.
1.1	06/30/2004	Deleted "High School Diploma or GED Date" and "Institution Name" from status record. Changed certain mandatory fields to optional, renamed fields to be consistent across the status and dynamics files, and added code values for "Military Character of Service Code".
2.0	10/11/2004	Updated Appendix D (old 2.0) to include OPM Connect:Direct point of contact information that was once included in this chapter.
		Updated to provide more detail on the file transfer process.
		Updated to correctly specify the DATE format to not include zero in the day range.
		Modified to reflect the latest Record Specification. Please refer to Appendix C (old Appendix E) for the specification release notes detailing the difference in the file format for this release.
		Added to explain the new Reporting Criteria column in the file format specification table. This column replaces the previous "Mandatory/Optional" column and includes the third criteria of "Critical."
		Updated Appendix A (old Appendix C) with the new valid values for all the human resources reference values that once appeared in this chapter.
		Added Appendix C (old Appendix E) to detail all the changes to the file format specification. This revision sheet and Appendix C should be updated in tandem.
2.1	02/18/2005	Updated with the new HR Status file format.
		Updated with the new HR Dynamics file format.
		Changed title of Section O to remove "Critical" from the title.
		Updated to be more specific about what ASCII character set should be used to create the file.
		Updated to explain and define the Policy Reporting Requirements and the Record Identifying Requirements.
		Updated to rename the section headings differentiating between the record identifying fields and the non-record identifying fields.
2.2	07/27/2005	Updated with the new HR Status file format.
		Updated with the new HR Dynamics file format.
2.3	09/08/2005	Made minor wording change in definition of Position Title element (ICD Seq #49) in the Status file.
		Removed Name Family (ICD Seq #5) and Name Given (ICD Seq #6) from the required record identifier list in the Status file.

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Chapter Release No.	Date	HR Revision Description
2.4	10/20/2005	Corrected references to "Appendix C" in the Codes column of the 2.8 Record Specifications. Appendix A has the correct code values.
		Shortened "Record ID Requirement" column header on the dynamics record table to shorten the row header.
		Renamed Special Salary Rate to Special Rate Supplement (Status ICD Seq #41).
		Removed "annualized amount" from definitions for both Prior Basic Pay (Dynamics ICD Seq #68) and Basic Pay (Dynamics ICD Seq #87). This makes the fields consistent with the Status ICD Basic Pay field, which is not annualized.
		Added Prior Special Rate Supplement and Special Rate Supplement fields (Dynamics ICD Seq #111, 112) to track these breakouts consistent with the status ICD.
		Added Ethnicity fields to both records (Status ICD Seq #167 and Dynamics ICD Seq #113). This field becomes effective January 1, 2006.
		Added note to section 2.7.1 regarding the handling of null numeric data.
		Applied better paragraph formatting to several tables.
2.5	08/11/2006	Minor updates to sections 2.3 and 2.5 to improve clarity.
		Changed dynamics file naming convention, replacing the hardcoded "1" value with a "0" to conform with the status file naming convention. The "1" was a legacy convention from CPDF that no longer applies to EHRI.
		Added a suffix to the file names for status and dynamics files to support versioning of the interface. This version of the Guide is 3.4 therefore the version suffix should be "_3.4".
		Removed the ASCII character set file format requirement in section 2.6.3 and replaced it with a description of the Connect:Direct functionality that will manage any necessary character set translation.
		Added text in 2.6.3 regarding delimiters not being required before the first field in the record.
		Added requirements for an email notification of file transmissions in section 2.6.4.
		Described the proper treatment of negative values in section 2.7.1.
		Added "Dup" to valid values for the Record Identifying Requirement described in section 2.7.2.2.
		Changed column headers in section 2.8.1 from "Codes" to "Notes" as the column contains more than code values.

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Chapter Release No.	Date	HR Revision Description
2.5 cont.	08/11/2006	Changes to Status file in section 2.8.1:
		 Added "Dup" to the Record ID Requirements to all CPDF fields on the status interface.
		 Added notes to Birth Date (ICD Seq #2), Appointment Type Code (ICD Seq #34), Retention Allowance Amount (ICD Seq #47), Creditable Military Service Months/Days (ICD Seq #67,68), Frozen Service Months/Days (ICD Seq #113,114)
		 Updated note on US Citizenship Indicator (ICD Seq # 12) and removed "NA" from valid values.
		 Updated names and definitions of the pay related elements including Special Basic Pay Supplement (ICD Seq #41), Total Salary Rate (ICD Seq #42), Basic Pay Rate (ICD Seq #43), Adjusted Basic Pay Rate (ICD Seq #44), and Standard Basic Pay Supplement (ICD Seq #45).
		Minor definition and notes update to Ethnicity and Race Identification Code field (ICD Seq # 167). Changes to Dynamics file in section 2.8.2:
		- Added "Dup" indicators to six fields
		 Added notes to Birth Date (ICD Seq #2), Creditable Military Service Months/Days (ICD Seq #41, 42), Frozen Service Months/Days (ICD Seq #44, 45), Retention Allowance Amount (ICD Seq #91).
		 Removed "Y" from Record ID Requirement for Legal Authority Code 1 (ICD Seq #7).
		 Updated note on Retirement Previous Coverage Indicator (ICD Seq # 46) and removed "NA" from valid values.
		 Updated names and definitions of the pay related elements including Prior Total Salary Rate (ICD Seq #67), Prior Basic Pay Rate (ICD Seq #68), Prior Adjusted Basic Pay Rate (ICD Seq #69), and Prior Standard Basic Pay Supplement (ICD Seq #70), Prior Special Basic Pay Supplement (ICD Seq #111).
		 Corrected EHRI Ref # from 965 to 298 for Grade, Level, Class, Rank, or Pay Band Code (ICD Seq #83).
		 Updated names and definitions of the pay related elements including Total Salary Rate (ICD Seq #86), Basic Pay Rate (ICD Seq #87), Adjusted Basic Pay Rate (ICD Seq #88), and Standard Basic Pay Supplement (ICD Seq #89), Special Basic Pay Supplement (ICD Seq #112).
		Individual edits in section 2.9.2 that check for numeric values now store zero vs. null.
		Removed reference to specific version number of the CPDF Guide to Edits in section 2.10.

Chapter Release No.	Date	HR Revision Description
3.0	06/08/2007	Corrected file naming convention to use an underscore ("_") instead of a period (".") between the Version (V) number and Release (R) number on both Status (section 2.6.1) and Dynamics (section 2.6.2) files.
		Added requirement for a 'negative report' email in section 2.6.4.
		Changed the contents of 2.7.2 to describe the new interface requirements table layout which contains new record identifier, priority, and retirement columns.
		Updated the data requirements in Sections 2.8.1 (Status) and 2.8.2 (Dynamics) based on the GHRR ICD Version 4.0 requirements approved on 6/5/2007:
		- Changed the table layout.
		- Changed priority ratings to 1-4 scale.
		- Added "Retirement" column and flags on dynamics file.
		- Updated notes and record identifier flags for several existing fields.
		 Added FEHB Election Effective Date (ICD Seq #168) and Appointment Not to Exceed Date (ICD Seq #169) to Status.
		 Added fields to Dynamics (ICD Seq #114-128) for the Retirement Systems Modernization program.
		 NOTE: Modified Dynamics ICD Seq #96 to now capture "Regular and Recurring Tour of Duty" vs. "Part Time Hours". This was a change made after the release of the final ICD spreadsheet on June 7, 2007.
4.1	03/01/2012	Document layout changed from previous versions to accommodate the addition of sections from the Guide to CPDF Reporting Requirements.
		Added Telework Eligibility Indicator (ICD Seq #170) to the HR-Status data feed.
		Changed "definition" to "description" in record specification.
		Modified name and descriptions of several fields to match the Guide to Data Standards.
		Removed retirement and CPDF columns in record specification tables.
4.2	07/31/2013	Added Cybersecurity Category Speciality Area Element (ICD Seq #171) to the HR-Status data feed.
		Added Cybersecurity Category Speciality Area Element (ICD Seq #129) to the HR-Dynamics data feed.

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Chapter Release No.	Date	HR Revision Description
4.3	08/31/2019	Revised list of critical data elements in section 3.6.4.
		Removed the Status and Dynamic Record Specification tables and placed them as separate PDF files under Chapter 3. Links to the PDF files are provided within the
		Chapter. The tables have also been placed with the Raw Datasets found on the Data, Analysis & Documentation webpage. To access the webpage, go to:
		https://www.opm.gov/data/Index.aspx?tag=EHRI.
		Made the following changes to the Status and Dynamic File Record Specification tables:
		- Added ICD Seq #172 Positon Sensitivity & Risk to Status Section
		- Added ICD Seq #130 Positon Sensitivity & Risk to Dynamics Section
		- Added ICD Seq #173 Security Clearance Level to Status Section
		- Added ICD Seq #131 Security Clearance Level to Dynamic Section
		Modified Dynamics ICD Seq #171 Data Type Number from (2) to (9).
		Modified Status ICD Seq #129 Data Type Number from (2) to (9).
		Modified descriptions of several fields to match the Guide to Data Standards.
		Corrected action required for Award Dollars when Nature of Action Code is 818 and 819 in section 3.7.5.1.
		Corrected action required for Award Percent when Nature of Action is 815-816; 825-827; 840-849; 878-879; 885-887-889 in section 3.7.5.1.
		Changed footnote for Award Hours in section 3.7.5.1.
		Modified and renumbered footnotes in section 3.7.5.1.
4.4	1/22/2021	Updated footers to reflect version 4.4 release.
		Removed reference to broken listserv.

3.2 Overview of HR Data Feeds

The goal for the EHRI HR Data Feeds is to securely acquire HR data for all Federal civilian employees. To accomplish this, data providers will submit two types of data to EHRI:

- Status A record of each employee's personnel data as of the ending date of a calendar month. Status data submissions consist of all active employees (whether in a pay or non-pay status) on the agency rolls as of the end of the period. (Version 4.3)
- **Dynamics** The personnel actions that have been processed for the employees during a bi-weekly reporting period. (**Version 4.3**)

Data submissions from agencies to EHRI represent their official workforce statistics. Agencies may process the data through their own systems or arrange for their data to be processed by another Federal agency. Regardless of the processing arrangement, each agency is responsible for collecting the data, editing it for validity, accuracy, and completeness, and furnishing the data to EHRI. Any agency that submits data to EHRI for itself or services one or more other agencies is known as a submitting point. Each submitting point is responsible for the timely reporting of its data and data for the agencies it services, and should ensure that all data for the agencies for which it submits are present and complete. When a submitting point makes major system changes, it is responsible for ensuring that data accuracy and completeness are maintained. The Office of Personnel Management should be notified when any major system changes are planned. Then, the Office of Personnel Management and the agency will decide whether the agency should submit test data or can continue to submit production data.

3.3 Employee Coverage

The EHRI HR Data Feeds cover all Federal civilian employees of the Executive Branch, except those in the:

- Central Intelligence Agency
- Defense Intelligence Agency
- Federal Reserve System Board of Governors
- National Geospatial-Intelligence Agency
- National Security Agency
- Office of the Director of National Intelligence
- Office of the Vice President
- Postal Rate Commission
- Tennessee Valley Authority
- U.S. Postal Service
- White House Office

EHRI also does not include: (1) non-U. S. citizens in foreign countries, (2) non-appropriated fund personnel, (3) commissioned officers in the Department of Commerce, Department of Health and Human Services, Department of Homeland Security, and the Environmental Protection Agency, (4) employees of the Judicial Branch, and (5) as of March 2006, foreign service personnel in the Department of State, except for a separate file of selected data elements reported for actuarial purposes. Legislative Branch coverage is limited to the Government Printing Office, the U.S. Tax Court, and several small commissions.

As the electronic Human Resource Information Systems consolidation continues, the number of providers will change. Depending on the source of HR related data, one provider may submit data for many agencies.

3.4 General File Content Rules

The providers are responsible for creating the Status and Dynamics HR files. Each file must comply with the following rules:

- Each line of the file must contain one record.
- Status and Dynamics records must not be combined within the same file.
- Each record will contain all of the fields listed in the Status and Dynamics Record Specifications, ordered by data element number, with each field separated by the vertical bar character ('|').
- Even if there is no value supplied for a field, the delimiter must still appear in the file.
- Values must be supplied for all mandatory elements.
- No delimiter is required before the first field or after the last field in the record.

3.5 Email Notification of File Transmission

Providers shall notify OPM of data submissions by sending an email to ehri_files@opm.gov. The email notification is required for a file to be processed, and must contain the name of the file and the record count of the file being transmitted. The email should indicate if the transmission is a resubmission, which is also denoted by the file name. The email should also include a "signature" consisting of the submitter's name, agency, and telephone number. A "negative" report email should be transmitted to the above email address in the event there are no records to be reported for the period.

3.6 Status Data Submission Requirements

3.6.1 General Requirements

Status data submissions consist of a record of each employee's personnel data as of the ending date of a calendar month. All active employees (whether in a pay or non-pay status) on the

agency rolls as of the end of the month are submitted in the file. Data for employees on detail should reflect their position of record (i.e., the position to which they are permanently assigned). When an employee has more than one appointment in the same agency, providers must submit more than one record using the same social security number.

3.6.2 File Naming Convention

Each status data file name will conform to the following naming convention:

SYYYYMMDD0AAAAN_V_R

Each portion of the file name is explained in the following table.

Name Segment	Description
S	Constant value of "S" indicating a Status file.
YYYY	For file as of date, indicates century (19 to 20) and year (01 to 99)
MM	For file as of date, indicates month (01 to 12)
DD	For file as of date, indicates day (01 to 31)
0	0 is a numeric zero, unless your submission contains only part of an agency's records. If that is the case, OPM will tell you what number to use.
AAAA	Indicates the agency code or agency/subelement code for the submitting agency.
N	Resubmission Indicator. On the first submission for each as of date, N is a numeric zero. If the data is resubmitted for the same as of date, the value of N is increased by 1.
V_R	Version (V) and Release (R) numbers for the file specification. This will allow the data warehouse load program to identify the correct file layout during transmission and load of the file. NOTE: Please refer to the Version and Release number in file Dynamics Data File Specification section of this document.

3.6.3 Transmission Frequency

Status files are transmitted on a monthly basis. Files should be transmitted to EHRI no later than five (5) working days after the end of the required reporting period. If the data is not delivered by the expected date of transmission, the provider point of contact will be notified. Providers are responsible for scheduling data transmissions to EHRI.

3.6.4 Quality Control

The Office of Personnel Management will accept a status submission if it meets the following criteria:

- The number of records submitted is reasonable in comparison with the previous month's submission. Overall, OPM will consider a variance within plus or minus 5 percent as reasonable; and
- Errors on fields are within tolerances. EHRI edits submissions for compliance with data standards and internal consistency. The edits are shown in the edit guide available on the OPM website at http://www.opm.gov/feddata/guidance.asp. Data that fail the edits are errors. Error rates are computed for each agency and for major subelements within selected agencies. Tolerances are error rates of 3% or less for agencies or subelements with 1000 or more employees; and 5% or less for agencies or subelements with less than 1000 employees.

While data quality is important for all priority 1, 2, and 3 data elements, the following elements are the most critical to OPM's reporting of government-wide statistics and therefore their accuracy is especially important.

- Agency
- Agency/Subelement
- Adjusted Basic Pay
- Basic Pay
- Current Appointment Authority
- Date of Birth
- Disability
- Duty Station
- Ethnicity and Race Identification
- Gender
- Grade, Level, Class, Rank, or Pay Band
- Health Plan
- Occupational Series
- Pay Basis
- Pay Plan
- Pay Status

- Position Occupied
- Service Computation Date (Retirement)
- Special Pay Table Identifier
- Standard Basic Pay Supplement
- Supervisory Status
- Tenure
- Type of Appointment
- Veterans Preference
- Work Schedule

If OPM cannot accept a status submission, the agency representative responsible for EHRI submissions will be notified. The agency will be expected to make necessary corrections and forward a resubmission when possible, but no later than 5 working days after notification of the rejection.

3.6.5 Record Corrections

Agencies should test their files and correct errors before submission to EHRI. Agencies should not submit specific corrections for individual status data errors. Errors should be corrected at the agency and correct data provided in the next regular submission.

3.6.6 Data Element Coverage

The definitions and code sets for the majority of the data elements contained in the status file specification are available in the Guide to Data Standards, which is available online at http://www.opm.gov/feddata/guidance.asp. Additional instructions are provided for the following data elements:

• Creditable Military Service (Years, Months, Days) must be reported on all employees (other than reemployed annuitants) on whom an accession or conversion personnel action with an effective date of October 1, 1986 (old CPDF redesign date) or later has been processed. Use zero when the reporting requirement applies but the employee has no creditable military service. Leave null when the reporting requirement does NOT apply.

• Current Appointment Authority:

O Current Appointment Authority (1) must be reported for all employees. The current appointment authority is the legal authority on the employee's most recent accession or conversion, excluding any mass transfers. Current appointment authority (1) may be reported as "ZZZ" for competitive service employees whose Service Computation Date for Leave is earlier than January 1982. Code "ZZZ" indicates the employee was appointed before agencies were required to report current appointment authority for competitive service employees.

- O Current Appointment Authority (2) is blank unless there were two legal authorities on the employee's most recent accession or conversion action. Current appointment authority (2) is always blank if current appointment authority (1) is "ZZZ."
- On accession and conversion actions, the current appointment authorities must match the legal authorities. The only exception is Mass Transfer.
- **Duty Station** is reported for all employees.
- Education Level must be reported for all permanent employees (tenure groups 1 and 2) and for all Senior Executive Service employees. It may be reported or left blank for temporary employees.
- Ethnicity and Race Identification is applicable to accessions occurring on or after January 1, 2006, and is required for accessions occurring on or after July 1, 2006. For accessions occurring prior to July 1, 2006, the Race or National Origin data standard may continue to be used. Ethnicity and Race Identification consists of one ethnicity category (Hispanic or Latino) and five race categories. All applicable categories may be selected, and at least one category must be selected. The code consists of six positions, one for each of the six categories:
 - Hispanic or Latino is reported in the first code position, where a numeric code of 1 indicates Hispanic or Latino and a numeric code of 0 indicates not Hispanic or Latino.
 - O American Indian or Alaska Native is reported in the second code position, where a numeric code of 1 indicates American Indian or Alaska Native and a numeric code of 0 indicates not American Indian or Alaska Native.
 - O Asian is reported in the third code position, where a numeric code of 1 indicates Asian and a numeric code of 0 indicates not Asian.
 - O Black or African American is reported in the fourth code position, where a numeric code of 1 indicates Black or African American and a numeric code of 0 indicates not Black or African American.
 - o **Native Hawaiian or Other Pacific** Islander is reported in the fifth code position, where a numeric code of 1 indicates Native Hawaiian or Other Pacific Islander and a numeric code of 0 indicates not Native Hawaiian or Other Pacific Islander.
 - White is reported in the sixth code position, where a numeric code of 1 indicates White and a numeric code of 0 indicates not White.

- Federal Employees' Retirement System (FERS) Coverage must be reported ONLY for those employees who are covered by the retirement plan codes K, L, M, or N. For all other employees, FERS coverage should be left blank.
- Frozen Service (Years, Months) must be reported if: (1) the employee's retirement plan code is K, L, M, or N; or (2) the employee's retirement plan code is C or E AND the employee has had an accession or conversion action effective July 1, 1987, or later. If the employee falls within either of these categories and has no frozen service, enter zeros in the frozen service field. If the employee does not fall into either category, leave the frozen service field blank.
- **Health Plan** must be reported for all employees on submissions for the months of March and September. It need not, but may be, included on other submissions. If submitted, the data will be processed through the normal EHRI edits.
- Instructional Program and Year Degree or Certificate Attained must be reported for all employees whose reported education level is:
 - o Bachelor's degree or higher; OR
 - o Associate's degree if the employee was hired on or after October 1, 1993; OR
 - o Completed terminal occupational program if the employee was hired on or after October 1, 1993.
- Standard Basic Pay Supplement is the adjusted basic pay minus basic pay. It is always represented as an annual dollar amount. If the employee's duty station or pay system is excluded from standard basic pay supplement, report standard basic pay supplement as blank. If the difference between adjusted basic pay and basic pay is zero, report standard basic pay supplement as zero.
- Pay Status/Uniformed Service Employment and Reemployment Rights Act (USERRA) Status must be reported for all employees. Employees on an intermittent work schedule are always reported in pay status.
- Race or National Origin is only applicable to an employee whose accession occurs prior to July 1, 2006. See the Ethnicity and Race Identification data standard for an employee whose accession occurs on or after January 1, 2006.
- Rating of Record:
 - Rating of Record (Level). Report the summary level for the employee's last rating of record unless the employee:
 - Moved into the Senior Executive Service since his or her last rating. For Senior Executive Service employees, report only the ratings received

under the Senior Executive Service appraisal system. If the employee has not yet received a rating under the Senior Executive Service appraisal system, report code "X."

- Moved to a position excluded from the performance appraisal system since his or her last rating. In this case, Rating of Record (Level) must be blank (but see Rating of Record (Pattern) below).
- o Rating of Record (Pattern). Report the code for the pattern associated with the Rating of Record (Level). If the employee has not yet received a rating, report a blank or the appropriate code for the pattern under which the employee will be rated. If the employee is in a position excluded from the performance appraisal system, report code "Z".
- o **Rating of Record (Period).** Report the period associated with the Rating of Record (Level). If the employee has not yet received a rating, Rating of Record (Period) may be blank. If the employee is in a position excluded from the performance appraisal system, report a blank.
- Retained Pay Plan, Retained Grade, and Retained Step must be reported with each submission for all employees in a period of grade retention under 5 U.S.C. 5362 (pay rate determinant codes A, B, E, F, U, and V). For all other employees, leave these data elements blank.
- **Supervisory Differential** must be reported for all employees receiving the allowance or differential. For all other employees, leave these data elements blank.
- **Special Pay Table Identifier** must be reported for all GS and GM special rate employees. For all other employees, leave this data element blank.

3.7 Dynamics Data Submission Requirements

3.7.1 General Requirements

Dynamics data submissions consist of records of personnel actions that have been processed for the employees during a bi-weekly reporting period. All personnel actions should be submitted, except for action codes 900-999, which are reserved for internal use by agencies.

When two actions are documented on the same SF-50 (Notification of Personnel Action), except where the first nature of action is 001 (cancellation) or 002 (correction), each action must appear as a separate record in the agency's EHRI Dynamic submission.

3.7.2 File Naming Convention

Each dynamics data file name will conform to the following naming convention:

DYYYYMMDD0AAAAN V R

Each portion of the file name is explained in the following table.

Name Segment	Description
D	Constant value of "D" indicating a Dynamics file.
YYYY	For file as of date, indicates century (19 to 20) and year (01 to 99)
MM	For file as of date, indicates month (01 to 12)
DD	For file as of date, indicates day (01 to 31)
0	0 is a numeric zero, unless your submission contains only part of an agency's records. If that is the case, OPM will tell you what number to use.
AAAA	Indicates the agency code or agency/subelement code for the submitting agency.
N	Resubmission Indicator. On the first submission for each as of date, N is a numeric zero. If the data is resubmitted for the same as of date, the value of N is increased by 1.
V_R	Version (V) and Release (R) numbers for the file specification. This will allow the data warehouse load program to identify the correct file layout during transmission and load of the file. NOTE: Please refer to the Version and Release number in file
	Dynamics Record Specification section of this document.

3.7.3 Transmission Frequency

Dynamics files should be transmitted on a bi-weekly basis. Files should be transmitted to EHRI no later than five (5) working days after the end of the required reporting period. If the data is not delivered by the expected date of transmission, the provider point of contact will be notified. Providers are responsible for scheduling data transmissions to EHRI.

3.7.4 Quality Control

The Office of Personnel Management may reject a dynamics data submission if, in its judgment, the file reflects significant errors. Examples of such errors are the total absence of certain categories of actions (such as accessions or separations) or the total absence of a required data element. If a file is rejected, the Office of Personnel Management will notify the agency's

dynamics submission point of contact. Agencies must correct and resubmit rejected files within 5 calendar days following receipt of the Office of Personnel Management notice.

If EHRI rejects an action, the agency should first determine if the action is of a type that should be submitted to EHRI. For example, nature of action codes 900-999 are reserved for agencies' internal use and are not to be submitted to EHRI; EHRI will reject them. If a rejected action is of a type that agencies should not submit to EHRI, the agency should take measures to assure their exclusion from future EHRI submissions. If the agency determines that the action is of a type that should be submitted to EHRI, the agency should make the correction and include the corrected action in their next scheduled dynamics file submission. Note that agencies may be aware of errors on their dynamics records, but choose to report the actions so that their dynamics file submission is not delayed by the data correction effort. The Office of Personnel Management considers this an acceptable practice when the alternative is not to submit the actions at all.

3.7.5 Data Element Coverage

The Dynamics Record Specification section of this document contain the required data elements and record format for dynamics submissions. When an employee had more than one appointment in the agency, use the same social security number for all dynamics actions submitted. Data elements not required on a transaction may be left blank, however, the delimiter ("|") is still required.

The definitions and code sets for the majority of the data elements contained in the dynamics file specification are available in the Guide to Data Standards, which is available online at http://www.opm.gov/feddata/guidance.asp. Additional instructions are provided for the following data elements:

• Award Amount:

- Award Dollars must be reported in whole dollars. If an award amount is underreported, do not submit a second action with the increment. Submit a correction with the total corrected award amount.
- o Award Hours must report award hours only if nature of action is time-off award.
- o Award Percent must report award percent only if nature of action is administratively uncontrollable overtime (AUO).
- Creditable Military Service (Years, Months, Days) must be reported on all employees (other than reemployed annuitants) on whom an accession or conversion personnel action with an effective date of October 1, 1986 (old CPDF redesign date) or later has been processed. Use zero when the reporting requirement applies but the employee has no creditable military service. Leave null when the reporting requirement does NOT apply.

• Current Appointment Authority:

- O Current Appointment Authority (1) must be reported for all employees. The current appointment authority is the legal authority on the employee's most recent accession or conversion, excluding any mass transfers. Current appointment authority (1) may be reported as "ZZZ" for competitive service employees whose Service Computation Date for Leave is earlier than January 1982. Code "ZZZ" indicates the employee was appointed before agencies were required to report current appointment authority for competitive service employees.
- Current Appointment Authority (2) is blank unless there were two legal authorities on the employee's most recent accession or conversion action. Current appointment authority (2) is always blank if current appointment authority (1) is "ZZZ."
- On accession and conversion actions, the current appointment authorities must match the legal authorities. The only exception is Mass Transfer.
- **Duty Station** is reported for all employees.
- Education Level must be reported for all permanent employees (tenure groups 1 and 2) and for all Senior Executive Service employees. It may be reported or left blank for temporary employees.
- January 1, 2006, and is required for accessions occurring on or after January 1, 2006, and is required for accessions occurring on or after July 1, 2006. For accessions occurring prior to July 1, 2006, the Race or National Origin data standard may continue to be used. Ethnicity and Race Identification consists of one ethnicity category (Hispanic or Latino) and five race categories. All applicable categories may be selected, and at least one category must be selected. The code consists of six positions, one for each of the six categories:
 - o **Hispanic or Latino** is reported in the first code position, where a numeric code of 1 indicates Hispanic or Latino and a numeric code of 0 indicates not Hispanic or Latino.
 - o American Indian or Alaska Native is reported in the second code position, where a numeric code of 1 indicates American Indian or Alaska Native and a numeric code of 0 indicates not American Indian or Alaska Native.
 - Asian is reported in the third code position, where a numeric code of 1 indicates Asian and a numeric code of 0 indicates not Asian.
 - o **Black or African American** is reported in the fourth code position, where a numeric code of 1 indicates Black or African American and a numeric code of 0 indicates not Black or African American.

- o **Native Hawaiian or Other Pacific** Islander is reported in the fifth code position, where a numeric code of 1 indicates Native Hawaiian or Other Pacific Islander and a numeric code of 0 indicates not Native Hawaiian or Other Pacific Islander.
- o **White** is reported in the sixth code position, where a numeric code of 1 indicates White and a numeric code of 0 indicates not White.
- Frozen Service (Years, Months) must be reported if: (1) the employee's retirement plan code is K, L, M, or N; or (2) the employee's retirement plan code is C or E AND the employee has had an accession or conversion action effective July 1, 1987, or later. If the employee falls within either of these categories and has no frozen service, enter zeros in the frozen service field. If the employee does not fall into either category, leave the frozen service field blank.
- Instructional Program and Year Degree or Certificate Attained must be reported for all employees whose reported education level is:
 - o Bachelor's degree or higher; OR
 - o Associate's degree if the employee was hired on or after October 1, 1993; OR
 - Completed terminal occupational program if the employee was hired on or after October 1, 1993.

• Nature of Action:

- o NOA(1) must be reported on all records.
- NOA(2) should be blank, unless NOA(1) is 001 (cancellation) or 002 (correction).
- Race or National Origin is only applicable to an employee whose accession occurs prior to July 1, 2006. See the Ethnicity and Race Identification data standard for an employee whose accession occurs on or after January 1, 2006.

• Rating of Record:

- o **Rating of Record (Level).** Report the summary level for the employee's last rating of record unless the employee:
 - O Moved into the Senior Executive Service since his or her last rating. For Senior Executive Service employees, report only the ratings received under the Senior Executive Service appraisal system. If the employee has not yet received a rating under the Senior Executive Service appraisal system, report code "X."
 - Moved to a position excluded from the performance appraisal system since his or her last rating. In this case, Rating of Record (Level) must be blank (but see Rating of Record (Pattern) below).

- O Rating of Record (Pattern). Report the code for the pattern associated with the Rating of Record (Level). If the employee has not yet received a rating, report a blank or the appropriate code for the pattern under which the employee will be rated. If the employee is in a position excluded from the performance appraisal system, report code "Z".
- o **Rating of Record (Period).** Report the period associated with the Rating of Record (Level). If the employee has not yet received a rating, Rating of Record (Period) may be blank. If the employee is in a position excluded from the performance appraisal system, report a blank.
- Retained Pay Plan, Retained Grade, and Retained Step must be reported with each submission for all employees in a period of grade retention under 5 U.S.C. 5362 (pay rate determinant codes A, B, E, F, U, and V). For all other employees, leave these data elements blank.
- **Supervisory Differential** must be reported for all employees receiving the allowance or differential. For all other employees, leave these data elements blank.

3.7.5.1 Dynamics Data Element Requirements by Nature of Action

This table consists of a decision logic table prescribing the data element requirements for specific types of personnel actions.

	When Nature of Action (1) Is:									
Required Data Elements	1xx or 2xx	3xx or 4xx	5xx	6xx thru 8xx BUT NOT 815-819, 825-827, 840-849 878-879 885-887,889	817	818- 819	815-816, 825-827, 840-849, 878879 885-887,889	001	002	
Agency/Subelement	X	X	X	X	X	X	X	X	X	
Award Dollars					X		X		X	
Award Hours							X^{16}		X	
Award Percent						X			X	
Basic Pay	X		X	X		X	X		X	
Creditable Military Service Years	X ¹		X	X²					X	
Creditable Military Service Months	X ¹		X	X ²					X	
Current Appointment Authority (1)	X	X	X	X		X	X		X	

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			V	Vhen Natur	e of A	ction	1) Is:		
Required Data Elements	1xx or 2xx	3xx or 4xx	5xx	6xx thru 8xx BUT NOT 815-819, 825-827, 840-849 878-879 885-887,889	817	818- 819	815-816, 825-827, 840-849, 878879 885-887,889	001	002
Current Appointment Authority (2)	X ³	X ³	X ³	X ³		X ³	X ³		X ³
Date of Birth	X	X	X	X	X	X	X	X	X
Duty Station	X	X	X	X		X	X		X
Education Level	X ⁴	X ⁴	X ⁴	X ⁴		X ⁴	X ⁴		X ⁴
Effective Date of Personnel Action	X	X	X	X	X	X	X	X	X
Effective Date of Personnel Action Being Corrected									X ⁵
Ethnicity and Race Identification	X ¹⁵	X	X	X		X	X		X
Frozen Service Years	X6		X6	X ²					X
Frozen Service Months	X ⁶		X ⁶	X ²					X
Grade, Level, Class, Rank, or Pay Band	X		X	X		X	X		X
Disability	X	X	X	X		X	X		X
Instructional Program	X ⁷	X ⁷	X ⁷	X ⁷		X ⁷	X ⁷		X ⁷
Legal Authority (1)	X	X8	X	X		X	X8	X	X
Legal Authority (2)	X ³	X ³	X ³	X ³		X ³	X ³		X
Standard Basic Pay Supplement	X9		X9	X ⁹		X9	X ⁹		X9
Name Family	X	X	X	X		X	X		X
Name Given	X	X	X	X		X	X		X
Name Middle	X	X	X	X		X	X		X
Name Suffix	X	X	X	X		X	X		X
Nature of Action (1)	X	X	X	X	X	X	X	X	X
Nature of Action (2)							_	X	X
Nature of Action Being Corrected									X ¹⁰
Occupation	X		X	X	X	X	X		X
Organizational Component	X	X	X	X		X	X		X
Pay Basis	X		X	X		X	X		X

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Chapter 3. The Data Feed	When Nature of Action (1) Is:									
Required Data Elements	1xx or 2xx	3xx or 4xx	5xx	6xx thru 8xx BUT NOT 815-819, 825-827, 840-849 878-879 885-887,889	817	818- 819	815-816, 825-827, 840-849, 878-879 885-887,889	001	002	
Pay Plan	X		X	X		X	X		X	
Pay Rate Determinant	X		X	X		X	X		X	
Personnel Office Identifier	X	X	X	X		X	X		X	
Position Occupied	X	X	X	X		X	X		X	
Position Title	X		X	X	X	X	X		X	
Retirement Previous Coverage Indicator	X ¹		X	X ²					X	
Prior Basic Pay		X	X	X		X			X	
Prior Duty Station		X	X	X		X			X	
Prior Grade, Level, Class, Rank, or Pay Band		X	X	X		X			X	
Prior Standard Basic Pay Supplement		X9	X ⁹	X ⁹		X9			X9	
Prior Occupation		X	X	X		X			X	
Prior Pay Basis		X	X	X		X			X	
Prior Pay Plan		X	X	X		X			X	
Prior Pay Rate Determinant		X	X	X		X			X	
Prior Step or Rate		X	X	X		X			X	
Prior Work Schedule		X	X	X		X			X	
Race or National Origin	X ¹⁵	X	X	X		X	X		X	
Rating of Record (Level)	X	X	X	X		X	X		X	
Rating of Record (Pattern)	X ¹¹	X ¹¹	X ¹¹	X ¹¹		X ¹¹	X ¹¹		X ¹¹	
Rating of Record Start Date	X ¹²	X ¹²	X ¹²	X ¹²		X12	X ¹²		X ¹²	
Rating of Record End Date	X12	X12	X12	X ¹²		X12	X ¹²		X12	
Retirement Plan	X	X	X	X		X	X		X	
Service Computation Date (Leave)	X	X	X	X		X	X		X	
Service Computation Date (Reduction in Force)	X	X	X	X		X	X		X	
Service Computation Date (Retirement)	X	X	X	X		X	X		X	

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	When Nature of Action 1) Is:									
Required Data Elements	1xx or 2xx	3xx or 4xx	5xx	6xx thru 8xx BUT NOT 815-819, 825-827, 840-849 878-879 885-887,889	817	818- 819	815-816, 825-827, 840-849, 878-879 885-887,889	001	002	
Sex	X	X	X	X		X	X		X	
Social Security Number	X	X	X	X	X	X	X	X	X	
Social Security Number Being Corrected									X14	
Step or Rate	X		X	X		X	X		X	
Supervisory Differential	X ¹³		X ¹³	X ¹³		X ¹³	X ¹³		X ¹³	
Supervisory Status	X	X	X	X		X	X		X	
Tenure	X	X	X	X		X	X		X	
Veterans Preference	X	X	X	X		X	X		X	
Veterans Status	X	X	X	X		X	X		X	
Work Schedule	X		X	X		X	X		X	
Year Degree or Certificate Attained	X ⁷	X ⁷	X ⁷	X ⁷		X ⁷	X ⁷		X ⁷	

Notes:

- 1 May be blank if nature of action is 2xx.
- 2 Required if nature of action is 803 and retirement plan is K, L, M, or N.
- 3 May be blank if there is only one authority.
- 4 May be blank if tenure is 0 or 3 and pay plan is other than ES.
- 5 Required if effective date of personnel action on the original action is being corrected.
- 6 Should be blank if retirement plan is other than C, E, K, L, M, or N.
- 7 Required if education level is:
 - (a) 13 or higher, OR
 - (b) 06 or 10 and the employee was hired on or after 10/1/1993.
- 8 Should be blank if nature of action is 350, 355, 817, 840-849, 886, 887, or 889.
- 9 Required if employee is eligible for the supplement.
- 10 Required if nature of action on the original action is being corrected
- 11 May be blank if rating of record (level) is other than 1-5.
- 12 May be blank if rating of record (level) is other than 1-5, but must be blank if rating of record (level) is X.
- 13 Required if employee receives the allowance or differential.
- 14 Required if social security number on original action is being corrected.
- 15 Ethnicity and Race Identification must be used for accessions occurring on or after July 1, 2006. Race or National Origin should only be used for accessions prior to July 1, 2006.
- 16 If nature of action is 846 (individual time off award) or 847 (group time off award), the Award Hours data element should be reported, rather than Award Dollars or Award Percent data element.

3.7.5.2 Cancellation Actions

Place 001 in the NOA(1) field. Place the NOA that is in the record being cancelled in the NOA(2) field. Also, include the agency, social security number, date of birth, and the effective date that are in the record being cancelled. For example, you originally submitted a record with 702 in the NOA(1) field. You now want to cancel the action. You should submit a record with 001 in the NOA(1) field and 702 in the NOA(2) field, along with the agency, social security number, birth date, and effective date that are in the record being cancelled.

3.7.5.3 Correction Actions

• Correction of Data (except Nature of Action, Social Security Number, and Effective Date of Personnel Action)

Place 002 in the NOA(1) field. Place the originally submitted NOA in the NOA(2) field. Place the corrected data in the applicable field. Complete the remainder of the record per the instructions in section 3.7.5.1 as they apply to the NOA in the NOA(2) field. Leave the "nature of action being corrected" field blank.

For example, you originally submitted a record with 702 in the NOA(1) field. You now want to correct the service computation date (SCD) from 199810 to 199812. You should submit a record with 002 in the NOA(1) field, 702 in the NOA(2) field, and 199812 in the SCD field. Complete the remainder of the record per the instructions in section 3.7.5.1 as they apply to NOA 702. Leave the "nature of action being corrected" field blank.

• Correction of Nature of Action

Place 002 in the NOA(1) field. Place the correct NOA in the NOA(2) field. Place the incorrect NOA in the "nature of action being corrected" field. Complete the remainder of the record per the instructions in section 3.7.5.1 as they apply to the NOA in the NOA(2) field.

For example, you originally submitted a record with 702 in the NOA(1) field. You now want to correct the NOA to 703. You should submit a record with 002 in the NOA(1) field, 703 in the NOA(2) field, and 702 in the "nature of action being corrected" field. Complete the remainder of the record per the instructions in section 3.7.5.1 as they apply to NOA 703.

Correction of Social Security Number

Place 002 in the NOA(1) field. Place the originally submitted NOA in the NOA(2) field. Place the correct SSN in the SSN field. Place the incorrect SSN in the "social security number being corrected" field. Complete the remainder of the record per the instructions in section 3.7.5.1 as they apply to the NOA in the NOA(2) field.

For example, you originally submitted a record with 702 in the NOA(1) field. You now want to correct the SSN from 333333333 to 777777777. You should submit a record with 002 in the NOA(1) field, 702 in the NOA(2) field, the correct SSN of 777777777 in the SSN field, and the incorrect SSN of 3333333333 in the "social security number being corrected" field. Complete the remainder of the record per the instructions in section 3.7.5.1 as they apply to NOA 702.

• Correction of Effective Date of Personnel Action

Place 002 in the NOA(1) field. Place the originally submitted NOA in the NOA(2) field. Place the correct effective date in the "effective date of personnel action" field. Place the incorrect effective date in the "effective date of personnel action being corrected" field. Complete the remainder of the record per the instructions in section 3.7.5.1 as they apply to the NOA in the NOA(2) field.

For example, you originally submitted a record with 702 in the NOA(1) field. You now want to correct the effective date from 19991101 to 19991201. You should submit a record with 002 in the NOA(1) field, 702 in the NOA(2) field, the correct effective date of 19991201 in the "effective date of personnel action" field, and the incorrect effective date of 19991101 in the "effective date of personnel action being corrected" field. Complete the remainder of the record per the instructions in section 3.7.5.1 as they apply to NOA 702.

3.8 Quality Control

Agencies are responsible for assuring that the data contained in the EHRI presents an accurate and complete statistical profile of their workforce. For this purpose, agencies must do quality control tests of the data they provide to EHRI from their internal personnel data systems. To help agencies, the edit guide (available online at http://www.opm.gov/feddata/guidance.asp) describes the edits used to check the validity of individual data elements and the proper relationship of values among associated data elements. Agencies should incorporate the EHRI edits into their internal personnel data systems at a location in the system that will maximize the effectiveness of their quality control efforts. These edits constitute the minimum level of quality control. Agencies are encouraged to supplement them based on the specifics of their internal programs and operations.

Submissions not meeting acceptance standards are returned to the agency for correction and resubmission. Agencies regularly receive summary reports of error patterns and detailed reports of specific edit failures for follow-up correction processing in later submissions.

Additionally, the Office of Personnel Management gives agencies a quality control report for each submission that shows the number and type of errors in their submissions, the number of records received and processed, and other quality control information. Agencies should correct

the incorrect data and verify that the number of records recorded represents the complete submission.

The major thrust of the Office of Personnel Management's quality control and assurance efforts is to assure that agencies have quality control operations in place to detect and correct incorrect and incomplete data before they submit the data to EHRI. The data submitted to the Office of Personnel Management represents an official representation of each Federal agency's workforce statistics. Each agency is responsible for the quality of its data in the EHRI and for the statistical profile of the agency that EHRI presents to the Office of Management and Budget, the Congress, the White House, and other users of EHRI.

Besides editing the agencies' EHRI data submissions, the Office of Personnel Management performs other quality control checks. Among the most significant of these checks are EHRI/Official Personnel Folder accuracy surveys.

EHRI/Official Personnel Folder accuracy surveys consist of the comparison of a sample of EHRI records to documents of record in Official Personnel Folders and other official files that contain EHRI source documents. The Office of Personnel Management's objective is to assess how accurately and completely EHRI data reflects data on source documents.

3.9 Quality Control Reports

OPM makes information resulting from processing EHRI submissions available to data providers in the form of quality control reports and error files for each Status and Dynamics submission. The EHRI data quality control reports and error files are available on the EHRI portal. These reports are particularly useful to submitters in monitoring their submission process. Deviations from previous norms should be carefully analyzed because they typically indicate that issues have arisen in the system that gathers and sends EHRI data from the agency to OPM. Quality Control Summary Reports are automatically emailed to Provider POCs at the end of each processing cycle. Error Records and Formatted Error Records Reports can be accessed / downloaded securely on the EHRI Portal. Provider POCs are given access credentials once access forms are submitted to EHRI.

Three types of quality reports are generated:

Quality Control Summary Report

• Provides information of the submission at a summary level (records processed, records rejected, error counts, edit codes and descriptions, etc.).

Error Records Reports

- Contains actual error records of the submission (PII data) in a text file.
- Pipe delimited format with error codes appended to each error record.

Formatted Error Records Report

- Contains actual error records of the submission (PII data) in a PDF file.
- Generated at the POI level sorted by the Agency Subelement Codes, SSN and name.

3.10 Edit Rules

3.10.1 Record Identifying Fields

Data Type	Edit Rule	Action taken if edit rule fails
VARCHAR(n) Codes Only	Check if code values is valid	Reject record
NUMBER(n)	Check if value is numeric	Reject record
DECIMAL(n, m)	Check if value is numeric	Reject record
DATE	Check if valid date	Reject record

3.10.2 Non-Record Identifying Fields

Data Type	Edit Rule	Action taken if edit rule fails
VARCHAR(n) – Codes Only	Check if code value is valid	Report error; If code is null, store "No Data
		Reported"; If code is invalid, store "Invalid Data"
NUMBER(n)	Check if value is numeric	Report error;
		If value is null or not a number, store zero
DECIMAL(n, m)	Check if value is numeric	Report error;
		If value is null or not a number, store zero

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Data Type	Edit Rule	Action taken if edit rule fails
DATE	Check if valid date	Report error; If date is null, store "No Data Reported"; If date is invalid, store "Invalid Data"

3.10.3 Relational Edits

In addition to the edit below, EHRI will apply the edit rules specified in the most current edit guide available on the OPM website.

Field Names	Edit Rule	Action taken if edit rule fails
EHRI Employee ID, Social Security Number, Birth Date	The employee data matches an existing employee	Create a new employee record.

3.11 Overall Record Specification

3.11.1 Overview

The HR file elements are described in tabular format, with the following column headers: ICD Seq #, EHRI Ref#, Data Element Name, Data Element Description, Data Concept, Datatype, Record Identifier, Priority, and Notes. The table below describes columns appearing in the record specification sections.

Column	Description	Valid Values
ICD Seq #	Sequential number to identify fields in this version of the record specification. Number assigned to a data element may change between versions.	
EHRI Ref#	Internal EHRI reference number assigned to data elements. Used to tie elements back to EHRI metadata repository.	
Data Element Name	Name of the data element.	
Data Element Description	Description of the data element.	

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Column	Description	Valid Valu	ies
Data Concept	Name of grouping for specific data elements in the record specification.		
Data Type	The data element data format and length.		
Record Identifier	Indicates how EHRI will handle incoming records during the data load process.	Y	Field must be present on the record or it will be rejected.
	roud process.	Dup	Field will be used to determine if this record is a duplicate.
		<blank></blank>	Will not reject or be used in duplicate check.
Priority	Indicates the criticality of fields being submitted to EHRI. All data	1	Mandatory for Compliance
	elements are requested (with the exception of priority "4" fields) if	2	High Priority
	they are available and applicable to the employee record.	3	Low Priority
	Note the priority scheme changed in version 4.0 of the GHRR to provide more clarity on what EHRI is expecting from providers.	4	Priority TBD (Not required for submission at this time.)
Notes	Additional details or guidance about the data element.		

3.11.2 Data Element Format Types

This table describes data types appearing in the record specification table found in the record specification sections.

Format	Meaning	Examples
VARCHAR(n)	A series of up to n alphanumeric and special characters, not including the vertical bar	123-45-6789
	character (' ').	125 Main St., S.W.
		Y
		OM00

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Format	Meaning	Examples
NUMBER(n)	A series of n numeric characters.	0
	Negative values can be sent in this field, and are submitted using a negative symbol ("-")	180
	immediately preceding the number being sent, with no leading or trailing spaces.	-10
	For example, a negative days total is sent as -10.	
	NOTE: any null (empty) values passed into a number field will be translated by the interface into a "0" (zero).	
DECIMAL(n, m)	A series of n numeric characters with up to m characters to the right of the decimal point. The	For a format of Decimal(9,2):
	decimal point should appear in the element value if required. A decimal point is neither required	0
	nor implied, i.e., 400 represents 400, not 4.00.	1500
	Negative values can be sent in this field, and are submitted using a negative symbol ("-")	1234567.89
	immediately preceding the number being sent, with no leading or trailing spaces. For example,	1234.0
	a negative one hundred dollar amount is sent as - 100 or -100.00.	0.75
	NOTE: any null (empty) values passed into a	-100
	number field will be translated by the interface into a "0" (zero).	-5.00
DATE	A date consisting of a 4 character year, a 2 character numeric month (01-12), and a 2	1960-01-01 (= January 1, 1960)
	character numeric day (01-31), separated by dashes.	2004-12-31 (= December 31, 2004)

3.12 Status Record Specification

The Status Record Specification table has been removed from within this Chapter and placed as a separate PDF file. To access the PDF file, go to: https://www.opm.gov/policy-data-oversight/data-analysis-documentation/data-policy-guidance/hr-reporting/ghrr4-4 ch3 status.pdf.

The Status Record Specification table can also be found with the Raw Datasets found on the Data, Analysis & Documentation webpage. To access the webpage, go to: https://www.opm.gov/data/Index.aspx?tag=EHRI

3.13 Dynamics Record Specification

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