Facility Registry System (FRS)

Data/Model Structure Changes

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Prepared for:  ENVIRONMENTAL PROTECTION AGENCY

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TABLE OF CONTENTS

PREPARED FOR: ...................................................................................................................... I
TABLE OF CONTENTS ............................................................................................................. II
REVISION HISTORY ................................................................................................................ III
A. DATA/MODEL STRUCTURE CHANGES .......................................................................... 4
   A.1 Table Structures Were Changed As Follows: ............................................................... 4
## REVISION HISTORY

<table>
<thead>
<tr>
<th>Version Number</th>
<th>Date</th>
<th>Description of Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>05/20/2012</td>
<td>Initial creation.</td>
</tr>
</tbody>
</table>


A. DATA/MODEL STRUCTURE CHANGES

A.1 TABLE STRUCTURES WERE CHANGED AS FOLLOWS:

1. Since FRS_INTEREST is the parent to most of the child data in FRS, and INTEREST_TYPE is part of the primary key of FRS_INTEREST along with PGM_SYS_ACRNM and PGM_SYS_ID, a lot of duplicate child data has been created for those programs that have multiple interest types, such as RCRAInfo. Therefore, instead of the FRS_INTEREST table, the FRS_PROGRAM_FACILITY table, with a primary key of PGM_SYS_ACRNM and PGM_SYS_ID, is now the parent to all of the child tables and FRS_INTEREST is now a child of FRS_PROGRAM_FACILITY. This is a major change and the biggest change in the model because the primary key of the many of the child tables is being changed; meaning most of data in the database will change. In addition:
   - INTEREST_TYPE is removed from all child tables, including FRS_SUPPLEMENTAL_INTEREST.
   - REGISTRY_ID is removed from FRS_INTEREST, as it is no longer a foreign key. REGISTRY_ID has been retained in FRS_ALT_NAME by adding a relationship between FRS_FACILITY_SITE and FRS_ALT_NAME.
   - The current process of creating an FRS_INTEREST record for every FRS_FACILITY_SITE record (to allow child data to be related to the FRS record) will be stopped. Instead, a relationship will be added between FRS_FACILITY_SITE and FRS_AFFILIATION, thus adding REGISTRY_ID as a foreign key in the FRS_AFFILIATION table.

2. STATE_CODE – changed length to 5 to allow storage of foreign codes in the following tables:
   - FRS_FACILITY_SITE, FRS_PROGRAM_FACILITY, FRS_MAILING_ADDRESS, FRS_SITE_HISTORY,
   - FRS_PGM_FACILITY_HISTORY, FRS_RES_PGM_FACILITY, FRS_ZIP_CODE_REF, FRS_RES_ORG,
   - FRS_RES_CONTACT, FRS_RES_MAIL, FRS_MAILING_ADDRESS_HISTORY, FRS_STATE_REF,
   - FRS_USER_REGISTRY (2 instances of STATE), FRS_USER_REGISTRY_HISTORY (2 instances of STATE)

3. HUC_CODE – in FRS_PROGRAM_FACILITY, FRS_RES_PGM_FACILITY, FRS_PGM_FACILITY_HISTORY
   - changed name of HUC_CODE to HUC_CODE_8
   - added new data element, called HUC_CODE_12

4. FRS_NAICS, FRS_NAICS_HISTORY, FRS_SIC, FRS_SIC_HISTORY, FRS_PROGRAM_FACILITY, and FRS_PGM_FACILITY_HISTORY all have a column called END_DATE, which was never used, so it has been removed.

5. FRS_INTEREST – the following columns have been removed because they are not used:
   - COMPLIANCE_IND
   - DQ_IND

6. FRS_PROGRAM_FACILITY – FACILITY_UIN has been removed because it is no longer being used

7. FRS_FACILITY_SITE – the following data elements have been removed:
   - CONFIDENCE_IND - not being used
   - DUNS_NUMBER – not being used and DUNS Number should not be included at the facility level. It is an Organization level data element and is located in the FRS_ORGANIZATION table

8. The address standardization and parsing routines are being replaced by improved routines utilizing Oracle’s spatial address parsing, Navteq street data, and the ZIP4 dataset. Therefore, the data elements that supported the old process have been removed and the data elements supporting the new process have been added.
- The following data elements have been removed from the FRS_FACILITY_SITE, FRS_PROGRAM_FACILITY, FRS_RES_PGM_FACILITY, FRS_PGM_FACILITY_HISTORY, and FRS_SITE_HISTORY Tables:
  PARSED_PRE_DIR_CODE
  PARSED_STREET_NUMBER
  PARSED_STREET_NAME
  PARSED_STREET_SUFFIX
  PARSED_POST_DIR_CODE
  LOCATION_KEY

- The following data elements have been added to the FRS_FACILITY_SITE, FRS_PROGRAM_FACILITY, FRS_RES_PGM_FACILITY, FRS_PGM_FACILITY_HISTORY, and FRS_SITE_HISTORY Tables:
  STD_HOUSE_NUMBER
  STD_STREET_NAME
  STD_BASE_NAME
  STD_PREFIX
  STD_SUFFIX
  STD_STYPE_BEFORE
  STD_STYPE_AFTER
  STD_POSTAL_CODE
  STD_STATE_CODE
  STD_COUNTY_FIPS
  STD_COUNTRY
  STD_FULL_ADDRESS

- The following data elements have been removed from the FRS_PROGRAM_FACILITY Table:
  DERIV_STD_CITY
  DERIV_STD_COUNTY
  DERIV_POSTAL_CODE
  MATCH_PERCNTG

- STD_CITY_NAME, STD_LOC_ADDRESS, and STD_COUNTY_NAME remain as is in the FRS_FACILITY_SITE, FRS_PROGRAM_FACILITY, FRS_RES_PGM_FACILITY, FRS_PGM_FACILITY_HISTORY, and FRS_SITE_HISTORY Tables.

9. Moved spatially derived data elements from FRS_FACILITY_SITE, FRS_PROGRAM_FACILITY, FRS_RES_PGM_FACILITY, FRS_PGM_FACILITY_HISTORY, and FRS_SITE_HISTORY tables to the geospatial tables.

- The following data elements were removed from FRS_FACILITY_SITE and FRS_SITE_HISTORY to the geospatial table:
  GEOCODE_LATITUDE
  GEOCODE_LONGITUDE
  ACCURACY_MEASURE
  US_MEXICO_BORDER_IND
  HUC_CODE_8
  HUC_CODE_12
  AIRSHED_CODE
  CENSUS_BLOCK_CODE
  CONGRESSIONAL_DIST_NUM
The following data elements are removed from FRS_PROGRAM_FACILITY, FRS_RES_PGM_FACILITY, FRS_PGM_FACILITY_HISTORY to the geospatial table:

- AIRSHED_CODE
- CENSUS_BLOCK_CODE
- CONGRESSIONAL_DIST_NUM

Note: HUC_CODE_8 and HUC_CODE_12 will stay in this table to store values received from programs.

10. The column STATE_ID was removed from FRS_RES_INTEREST because it is not being used.

11. The column OLD_AFS_PGM_SYS_ID is being removed from PGM_FACILITY_HISTORY, ALT_NAME_HISTORY, AFFILIATION_HISTORY, SIC_HISTORY, and NAICS_HISTORY.

12. The following tables were deleted because they are not used:
   - FRS_FED_FAC_DSCRP
   - FRS_LOC_KEY
   - FRS_ACCESS_REGISTRY_HISTORY

13. FRS_COMMENT – REGISTRY_ID was added, PGM_SYS_ACRNM, PGM_SYS_ID, and INTEREST_TYPE were deleted and the length of USER_COMMENT was expanded to 4,000.

14. FRS_STATE_REF – the column, STATE_FIPS, was added to the table.

15. FRS_AFFILIATION & FRS_AFFILIATION_HISTORY – removed column STD_AFF_TYPE.

16. FRS_ACCESS_REGISTRY – the columns EPA_REGION_CODE and STATE_CODE were removed, as these columns are not being populated.

17. FRS_USER_REGISTRY – removed column USER_PW, as single sign-on removes the need to track user passwords. Also, because of single sign-on, the table FRS_USERID_HISTORY was deleted.

18. FRS_INTEREST, FRS_INTEREST_HISTORY, and FRS_RES_INTEREST – changed ACTIVE_CODE to ACTIVE_STATUS to store more descriptive status values specific to programs. For example, for CERCLIS, ACTIVE_STATUS would have values based on the RNPL_STATUS_CODE (e.g., ‘Site is Part of NPL Site’, ‘Deleted from Final NPL’, ‘Currently on Final NPL’).

19. FRS_ALTERNATIVE_ID – added UPDATE_DATE because it was missing.

20. FRS_USER_REGISTRY and FRS_USER_REGISTRY_HISTORY
   - Added column PREVIOUS_USER_ID varchar2(30)
   - Changed length of USER_ID and TRANSACTION_USER_ID to 30

Future plans include adding/modifying the model to incorporate corporate and sub-facility information.