

**California Air Resources Board,  
Refrigerant Management Program,  
Refrigerant Registration and Reporting System (R3)**

Specification for third-party systems to provide an XML data file that can be imported into the Refrigerant Registration and Reporting System (R3).

**Background**

Under AB 32 the Air Resources Board (ARB) requires registration and annual reporting for facilities that are subject to the act. Companies are required to register, providing information about the Company, plus each Facility, Refrigeration System and Automatic Leak Detection (ALD) System, along with annual reporting of Refrigeration System Service and Leak Repair Information.

To assist in making data entry to the R3 program more automated, companies may select to upload data directly into the program for Registration and for Facility Annual Reporting. To enable this import of data into the R3 program ARB provides:

- A specification for the R3 XML data import document (file); and
- A test location for companies (and developers) to test their XML data document.

**Process**

In some cases a company may be using a third-party (non R3) Refrigerant Management System (RMS) that stores and manages Facility and Refrigerant System data. That third-party RMS could generate an XML data document that can be imported into the R3 program for use during Registration and separately Annual Reporting processes.

The third-party software would create the ARB specified XML data document and allow a R3 Program registrant to save it to their local machine. The R3 program is “browser based, server side software” and will provide an upload method for the registrant/user to select the XML data document from the user’s local machine and upload the XML data document into the ARB R3 program.

Other methods could be used to generate the XML data document. ARB has provided the specification for the XML data document as an open specification.

The R3 software will check the uploaded XML file for virus infection, then validate the structure and to some extent validate the data contained in the XML data document. If the XML document fails the virus check or validations, the user will be informed that the XML data document has been rejected, along with the error conditions. The user may then correct and resubmit the XML data document.

One (single) specification is provided - used for creation of an XML data document that has all the data required for both Registration and Annual Reporting. The XML shall contain data on all Facilities, Refrigeration Systems, ALD Systems and Refrigeration System Service and Leak Repair reports. The R3 program will extract the required data, as needed, from the XML data document.

This design feature makes it easy to define **one** data export method, creating a single XML data document that meets the ARB requirements for **both** Registration and Facility Annual Reporting activities of companies with one or more Facilities with Refrigeration Equipment systems subject to the regulations.

The R3 XML import process supports registration of multiple facilities, each with one or more Refrigeration Systems.

The first time a Company uses this XML data document (example: before a March 1 registration deadline), they could use the same XML data to both Register and then file Facility Annual Reports before the March 1 deadline.

Once a company registers on the R3 program using the XML upload service, in subsequent years they can create a new XML data document from third party systems for filing Annual Reports. Those subsequent XMLs will contact service records for that particular filing year, along with rest of XML elements like facility details, refrigerant systems and Automatic Leak Detection systems.

#### **Testing the XML data document**

Prior to uploading the XML data for use in the Registration or Annual Reporting process the XML data file can be tested in the R3 system. The functionality of the test process is the same process and validations used in the actual program. If errors are found in the XML data document the user will receive clear error messages and the XML data will be rejected in its entirety. The test process is available for development and validation of the XML data document. No R3 program login will be required to test and XML data document. Tested XML data documents will not be saved or accessible in other parts of the R3 program.

#### **Assumptions:**

1. Only companies with Refrigerant systems will use the upload service. Distributors, Wholesalers or Reclaimers have no refrigerant systems or service records and hence will not need to use the XML upload service
2. When initially registering a Company, including all Facilities and Refrigeration Equipment the authorized company representative can use the XML for registration of the Company, all Facilities and associated Refrigeration Equipment in one single automatic process. Individual facilities cannot generate their own individual XML for import into the R3 program.
3. Companies and Facilities are responsible to ensure that information entered into the R3 program, through use of the XML data document import method, or through direct methods, is both accurate and complete.

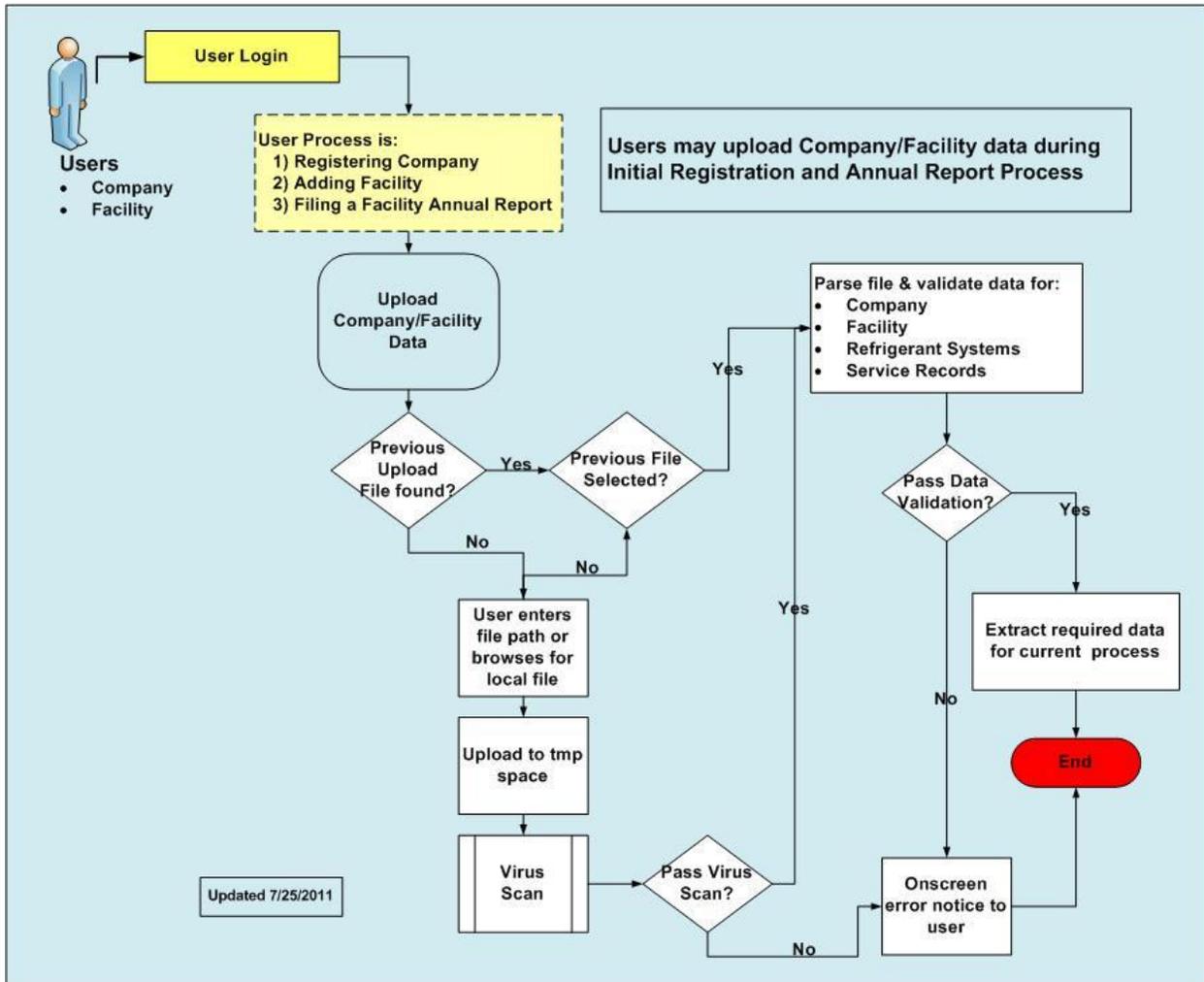
### **Service Records Reference ID**

To maintain uniqueness of company service records in the RMP R3 system, ARB requests companies to pass the element "ServiceRecordReferenceId" along with their service records. While this is an optional value it is important for inserting only one copy of a record and updating any changes in subsequent uploads.

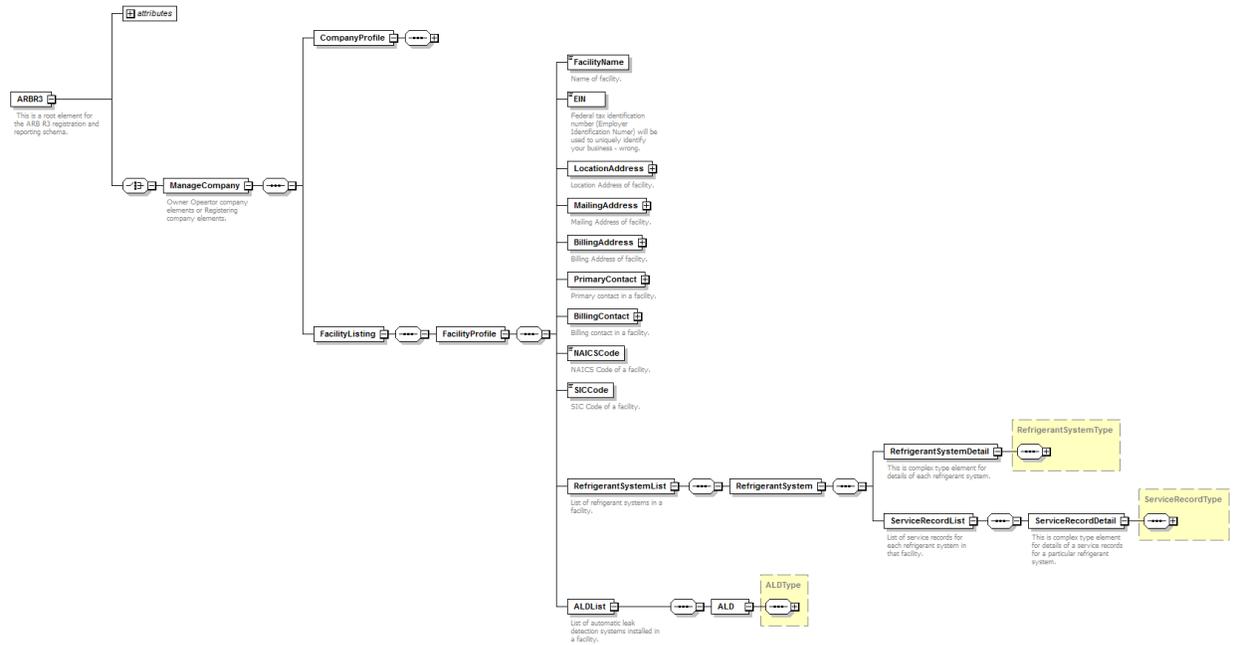
"ServiceRecordReferenceId" is the primary key used by the company for each service record maintained by the company.

The RMP-R3 application will use the customer supplied primary key reference to store/identify the service record within R3. Records with matching "ServiceRecordReferenceId" will be updated; records with no match will be inserted as new service records.

### R3 Workflow for XML data document Import



# XML Schema Diagram



Generated by XMLSpy

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