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# **June Release Supported Services**

# **Registration and Authentication Process for the Industry Services**

- The system will provide an ability to perform Industry Services for the Site Managers
- The system will use a combination of the API Id and API Key for User Authentication and Authorization
- An API Id/API Key pair will be generated by the RCRAInfo/Industry Application
- Unique API Id/API Key pair will be associated with the CDX User Id. The same API Id/API Key pair will be used for all Facilities where the User has a Site Manager Role.
- An API Id/API Key pair does not expire. However, CDX passwords requires renewal every 90 days. The Site Manager that owns the API Id/API Key pair must properly maintain their CDX account.
- API Id/API Key pair approach hides the User identity which provides higher level of security in comparison with CDX User Id and CDX/NAAS password approach
- API Id/API Key pair approach does not require external calls for an Authentication process. This
  will provide increased performance and uptime; decreased complexity and cost of the system in
  comparison with CDX User Id and CDX/NAAS password approach which requires external Web
  Services communication for every Industry Service call.
- The User will be able to request API Key regeneration if lost or compromised.
- An API Id/API Key pair will be terminated if the User was deactivated or no longer has a Site Manager Role for any Facility

## **User Registration process**

- 1. Users will register in CDX. (In a later phase of RCRAInfo we will use CDX services to register users seamlessly in RCRAInfo.)
- 2. Users will use CDX RCRA Industry link to be handed off to RCRAInfo/Industry Application (System).
- 3. CDX User Id will be stored in RCRAInfo/Industry Application
- 4. In the System the Users will request the Role of Site Manager for each Site.
- 5. After an approval the Site Manager will be able to request an API Id/API Key pair.
- 6. An API Id/API Key pair is per user. A user will not need to have a separate API Id/API Key pair for each Facility they are registered for.
- 7. The User will be able to copy the API Id/API Key pair and will use it for the API Authentication. (API Key will be displayed to the User only at the time of the original generation)

# **Services Requests and Responses**

All services (except Authenticate) will accept Security Token which will be passed in the header of the request. Service parameters will be passed as part of service request. See Service Invocation Examples for details. Services will return a Response in JSON format. If service successfully completed a request it will return the requested data. See Services Completed Return for JSON examples. If the service fails it will return specific error. Errors have error code, error message, error id and error date. See Services Error Response Examples.

#### Services context URL

All Services are separated into RCRAInfo Services and Emanifest Services by context URL. RCRAInfo Services and Emanifest Services have locations for Data Services and Lookup Services.

RCRAInfo Data Services are located under following URL:

<server url>/rcra-handler/rest/api/v1/

Following RCRAInfo Data Services are implemented for June release:

- auth
- site-details

RCRAInfo Lookup Services are located under following URL:

<server url>/rcra-handler/rest/api/v1/lookup

Following RCRAInfo Lookup Services are implemented for June release:

- density-uom
- form-codes
- source-codes
- federal-waste-codes
- state-waste-codes
- management-method-codes

Emanifest Data Services are located under following URL:

<server url>/rcra-handler/rest/api/v1/emanifest

Following Emanifest Data Services are implemented for June release:

manifest

- manifest-tracking-numbers
- site-ids

Emanifest Lookup Services are located under following URL:

<server url>/rcra-handler/rest/api/v1/emanifest/lookup

Following Emanifest Lookup Services are implemented for June release:

- printed-tracking-number-suffixes
- proper-shipping-names
- id-numbers
- id-numbers-by-shipping-name
- proper-shipping-names-by-id-number
- hazard-classes
- hazard-class-by-shipping-name-id-number
- packing-groups
- packing-groups-by-shipping-name-id-number
- emergency-numbers
- emergency-numbers-by-id-number
- container-types
- quantity-uom

# **Services**

#### **RCRAInfo Data Services**

#### auth

# **Description**

Authenticates the user and returns Security Token

# Service Type

**RCRAInfo Data Service** 

# **Parameters**

- API Id: API Id is the User Service Id
- API Key: API Key is the User Service "password"

# **Service Invocation Example**

<server url>/rcra-handler/rest/api/v1/auth/6f7a9848-35a5-4874-928f12fc3def1a33/PYdg4vhKTouCcQFSZCGM

- 1. System will check if one of the credentials is empty or incorrect. If so, following error will be generated:
  - E SecurityApiInvalidCredentials: Invalid API Id/Key Specified

- 2. System will check if API Id was disabled by the Administrator. If so following error will be generated:
  - E\_SecurityApiInvalidStatus: API Id Status Invalid
- 3. The System will generate JSON Web Security Token and token expiration Date. (The System will utilize Security Token (JWT) standard to generate a token. All subsequent calls to the system must contain Security Token in the header.) Security Token contains User Profile and User Role Information in encrypted format.
- 4. If successful the system will return JSON containing following information:
  - token
  - expiration date
- 5. If failed Authentication the System will return JSON containing:
  - error: which will have following fields:
  - code: Error code which designated for automated processing
  - message: "Human readable" Error message corresponding to the error code
  - error id: Unique error id for auditing and tracking purpose
  - date: Error Date/Time for auditing and tracking purpose

"auth.json"

# **Completed Response Example**

{

#### "token":

"eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiI2ZjdhOTg0OC0zNWE1LTQ4NzQtOTI4Zi0xMmZjM2RlZjFhMzM iLCJhcGlUb2tlbkNsYWltljoie1xulCBcImFwaUlkXClgOiBcIjZmN2E5ODQ4LTM1YTUtNDg3NC05Mjh mLTEyZmMzZGVmMWEzM1wiLFxuICBcInByb2ZpbGVcIiA6IHtcbiAgICBcInVzZXJJZFwiIDogXCJEQVZ JRERVTkRVQVwiLFxuICAgIFwic3RhdHVzXClgOiBclkFjdGl2ZVwiLFxuICAgIFwibGFzdExvZ2luRGF0ZV wilDogXClyMDE3LTA2LTIyVDIyOjU2OjA5LjAwMCswMDAwXClsXG4glCAgXCJzZWN1cml0eUFncmV lbWVudERhdGVcIiA6IG51bGwsXG4glCAgXCJwYXNzd29yZFJlc2V0RGF0ZVwiIDogbnVsbCxcbiAglCB clnBhc3N3b3JkU3RhdHVzXClgOiBclkFjdGl2ZVwiLFxulCAgIFwiY29udGFjdFwiIDoge1xulCAgICAgXC J0aXRsZVwiIDogXCJhc2RmYXNkZlwiLFxuICAgICAgXCJmaXJzdE5hbWVcIiA6IFwiRGF2aWRcIixcbiAg ICAgIFwibWlkZGxlSW5pdGlhbFwilDogXCJKXClsXG4glCAgICBcImxhc3ROYW1lXClgOiBclkR1bmR1Y VwiLFxulCAglCAgXCJwaG9uZVwiIDogXClzMDEtMzUxLTk5MjJclixcbiAglCAgIFwicGhvbmVFeHRlbn Npb25cliA6IFwiNzk1OThclixcbiAglCAglFwib3JnYW5pemF0aW9uXClgOiB7XG4glCAglCAglFwiaWR cliA6IDEyLFxuICAgICAgICBcInRleHRcliA6IFwiQ0dJXCIsXG4gICAgICAgIFwiY2R4T3JnYW5pemF0aW 9uSWRcliA6IDE3MDk2LFxuICAglCAglCBclm9yZ2FuaXphdGlvblR5cGVcliA6IFwiQ0RYXCJcbiAglCAgl H0sXG4gICAgICBcImNvbnRyYWN0b3JcliA6IGZhbHNILFxulCAgICAgXCJhZGRyZXNzMVwiIDogXCIx MzI5IEUgU1QgU0VclixcbiAglCAglFwiYWRkcmVzczJcliA6IG51bGwsXG4glCAglCBclmNpdHlcliA6IF wiRkFJUkZBWFwiLFxulCAglCAgXCJzdGF0ZVwilDoge1xulCAglCAglCBcInJlZ2lvblwilDogXClwM1wiL FxulCAglCAglCBcImRlZmF1bHRUaGlyZENoYXJhY3RlclwilDogXCJSXClsXG4glCAglCAglFwiaWRcliA6l DE1LFxuICAgICAgICBcImNvZGVcIiA6IFwiVkFcIixcbiAgICAgICAgXCJkZXNjcmlwdGlvblwiIDogXCJWS VJHSU5JQVwiLFxuICAgICAgICBcIm5hbWVcIiA6IFwiVklSR0lOSUFcIixcbiAgICAgICAgXCJhY3RpdmVc IiA6IHRydWUsXG4glCAglCAglFwidXNhZ2VcIiA6IFwiMVwiLFxulCAglCAglCBcInVzZXJJZFwilDogbnV sbCxcbiAgICAgICAgXCJsYXN0Q2hhbmdlXClgOiBcljlwMTctMDltMTNclixcbiAgICAgICAgXCJoZWxwT m90ZXNcIiA6IFwiIFwiLFxuICAgICAgICBcImFjdGI2aXR5TG9jYXRpb25cIiA6IFwiSFFcIlxuICAgICAgfSx cbiAgICAgIFwiemlwXCIgOiBcljIyMDMzXCIsXG4gICAgICBcImxlZ2FjeVVzZXJJZFwiIDogbnVsbCxcbiAg ICAgIFwiZW1haWxcIiA6IFwiZGF2aWRAZHVuZHVhLmNvbVwiLFxuICAgICAgXCJ1c2VyT3JnYW5pe mF0aW9uSWRcIiA6IDU1MDY2LFxuICAgICAgXCJ1c2VyUm9sZUlkXCIgOiAxMTk4MDQsXG4gICAgIC BcImlkXCIgOiAyLFxuICAgICAgXCJjcmVhdGVkRGF0ZVwiIDogXCIyMDE3LTA2LTE5VDIyOjM4OjUxLjA wMCswMDAwXCIsXG4gICAgICBcInVwZGF0ZWREYXRIXCIgOiBcIjIwMTctMDYtMjJUMjI6NTY6MDk uMDAwKzAwMDBcIlxuICAgIH0sXG4gICAgXCJwcm9maWxIVHIwZVwiIDogXCJDRFhclixcbiAgICBcIn Nwb25zb3JcIiA6IG51bGwsXG4gICAgXCJpZFwiIDogMixcbiAgICBcImNyZWF0ZWREYXRIXCIgOiBcIjI wMTctMDYtMTIUMjI6Mzg6NTEuMDAwKzAwMDBcIixcbiAgICBcInVwZGF0ZWREYXRIXCIgOiBudW xsXG4gIH0sXG4gIFwicGVybWlzc2lvbnNcIiA6IFsgXSxcbiAgXCJzaXRIUGVybWlzc2lvbnNcIiA6IFsgeyB 9LCB7IH0gXVxufSIsImV4cCI6MTQ5ODI1OTc0NX0.xw\_PGyN6for1GHwf6zqp0OJS10hwK8jEgRyRI0 JpFUducwDKj5paWRTEsCky\_06pryEve3Yw2w1bbBzqGdSnnw ",

"expirationDate": "2017-06-23T23:15:45.095+0000"

}

# **Errors and Error Response Examples**

code	message
E_SecurityApiInvalidCredentials	Invalid API Id/Key Specified
E_SecurityApiInvalidStatus	API Id Status Invalid
E_SystemError	Message describing system error

```
Error Response Example
```

```
{
   "code": "E_SecurityApiInvalidCredentials",
   "message": "Invalid API Id/Key Specified",
   "errorId": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
   "date": "2017-06-23T23:15:45.095+0000"
}
```

# site-details

#### **Description**

Returns Site Information by the Site Id. Following site information will be included:

- Site Id
- Mailing Address
- Site Address
- Contact First Name
- Contact Middle Initial
- Contact Last Name
- Contact phone number
- Contact email

#### Service Type

RCRAInfo Data Service.

#### **Parameters**

- Security Token: Security Token received in Authentication. Will be passed in the Header of the request.
- Site Id: Site id

#### **Service Invocation Example**

<server url>/rcra-handler/rest/api/v1/site-details/CAT080025711

# Sequence of steps

- 1. The System will validate Security Token
  - 1.1. If Security Token is invalid the system stops the submission and will generate following error:
    - E\_SecurityApiTokenInvalid: Invalid Security Token
  - 1.2. If Web Security Token expired the system stops the submission and will generate following error:
    - E\_SecurityApiTokenExpired: Security Token is Expired
  - 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
    - E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site using Role information contained in Security Token
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
    - E IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system will process the request
  - 3.1. The system will check if Site with provided Site Id is valid and registered inRCRAInfo.
    - 3.1.1. If provided Site Id is invalid the processing will be stopped and system will generate following error:
      - E InvalidSiteId: Provided Site Id is not Valid

Site Id shall be compliant with the following format:

- Two Letter Activity Location Code + Single alphanumeric Character + Up to 9 alphanumeric characters
- 3.1.2. If provided Site Id is not registered in RCRAInfo the processing will be stopped and system will generate following error:
  - E\_SiteIdNotFound: Site with provided Site Id is not Found
- 3.2. The system will obtain Site Information for the provided Site Id
- 3.3. The System generates JSON containing obtained Site Information
- 4. The System returns the response
  - 4.1. If site was found the system returns generated JSON containing following information:

- site type: "Generator"/"Tsdf"/"Transporter"
- site information: containing site name, location address, mailing address, contact first name, middle initial, last name, phone number, phone extension, email
- 4.2. If any errors were encountered during processing the system returns JSON containing:
  - error: containing code, message, error Id, date

```
"site.json"
Completed Response Example
   "siteType": "Tsdf",
   "epaSiteId": "CA99999996",
   "name": "CA GENERATOR NAME",
   "mailingAddress": {
           "address1": "123 D ROAD",
           "city": "EDWARDS",
           "state": {
                   "code": "CA"
           "country": {
                   "code": "US"
           "zip": "93524"
   },
"siteAddress": {
"address"
           "address1": "456 N BLVD",
           "city": "EDWARDS",
           "state": {
                   "code": "CA"
           "country": {
                   "code": "US"
           "zip": "93524"
  },
"contact": {
    "firs
           "firstName": "John",
           "middleInitial": "C",
           "lastName": "Smith",
           "phone": {
                   "number": "703-208-5674",
                   "extension": "3"
           "email": "JSmith@abc.com"
   }
```

#### **Errors**

Туре	code	description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
Validation	E_InvalidSiteId	Provided Site Id has Invalid format
Validation	E_SiteIdNotFound	Site with Provided Site id is Not Found
System	E_SystemError	Message describing system error

```
Token Validation Error Response Example
```

```
{
    "code": "E_SecurityApiTokenExpired",
    "message": "Security Token is Expired"
    "errorld" : "9v7a9808-s35a5-4874-928f-12fc3def4b56",
    "date" : "2017-06-23T23:15:45.095+0000"
}

Validation Error Response Example
{
    "code": "E_InvalidSiteId",
    "message": "Provided Site Id was not found"
    "errorld" : "9v7a9808-s35a5-4874-928f-12fc3def4b56",
    "date" : "2017-06-23T23:15:45.095+0000"
}
```

# **RCRAInfo Lookup Services**

# density-uom

# **Description**

Returns the list of Density UOM Codes and Descriptions

# **Parameters**

• Security Token: Security Token received in Authentication. Will be passed in the Header of the request.

# Service Type

RCRAInfo Lookup Service.

#### Service Invocation Example

<server url>/rcra-handler/rest/api/v1/lookup/density-uom

- 1. The System will validate Security Token
  - 1.1. If Security Token is invalid the system stops the submission and will generate following error:
    - E SecurityApiTokenInvalid: Invalid Security Token

- 1.2. If Security Token expired the system stops the submission and will generate following error:
  - E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
    - E\_IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will obtain Density UOM Codes and Descriptions
  - 3.2. The System will generate JSON containing obtained Density UOM Codes and Descriptions
  - 4. The System returns response:
    - 4.1. If Request was completed the system will return JSON containing:
      - request status: "Completed"
    - list of Density UOM Codes and Descriptions
    - 4.2. If any errors were encountered during processing the system returns JSON containing:
    - error: containing code, message, error Id, date

```
"code-descriptions.json"
```

#### **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
System	E_SystemError	Message describing system error

```
Error Response Example
{
    "code": "E_IndustryPermissions",
    "message": "The user does not have Industry permissions for any Site",
    "errorId": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
    "date": "2017-06-23T23:15:45.095+0000"
}
```

#### form-codes

## **Description**

Returns the list of Form Codes and Form Code Descriptions

# Service Type

RCRAInfo Lookup Service.

#### **Parameters**

 Security Token: Security Token received in Authentication. Will be passed in the Header of the request.

# **Service Invocation Example**

<server url>/rcra-handler/rest/api/v1/lookup/form-codes

- 1. The System will validate Security Token
- 1.1. If Security Token is invalid the system stops the submission and will generate following error:
- E\_SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Security Token expired the system stops the submission and will generate following error:
- E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
- E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
- E\_IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will obtain Form Codes and Form Code Descriptions
  - 3.2. The System will generate JSON containing obtained Form Codes and Form Code Descriptions
- 4. The System returns response:

- 4.1. If Request was completed the system will return JSON containing:
- list of Form Codes and Form Code Descriptions
- 4.2. If any errors were encountered during processing the system returns JSON containing:
- error: containing code, message, error ld, date

"code-descriptions.json"

# **Completed Response Example**

(Note: The example does not represent complete list of all Form Codes and Form Code Descriptions)

```
{
    "code": "W101",
    "description": "VERY DILUTE AQUEOUS WASTE CONTAINING MORE
    THAN 99% WATER"
},
{
    "code": "W200",
    "description": "STILL BOTTOMS IN LIQUID FORM "
},
{
    "code": "W001",
    "description": "LAB PACKS FROM ANY SOURCE NOT CONTAINING
    ACUTE HAZARDOUS WASTE"
},
{
    "code": "W002",
    "description": "CONCENTRATED HALOGENATED (E.G.
    CHLORINATED) SOLVENT"
}
```

## **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
System	E_SystemError	Message describing system error

# Error Response Example

```
"code": "E_IndustryPermissions",
```

<sup>&</sup>quot;message": "The user does not have Industry permissions for any Site",

```
"errorld": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
    "date": "2017-06-23T23:15:45.095+0000"
}
```

#### source-codes

# **Description**

Returns the list of Source Codes and Source Code Descriptions

## Service Type

RCRAInfo Lookup Service.

#### **Parameters**

• Security Token: Security Token received in Authentication. Will be passed in the Header of the request.

# **Service Invocation Example**

<server url>/rcra-handler/rest/api/v1/lookup/source-codes

- 1. The System will validate Security Token
  - 1.1. If Security Token is invalid the system stops the submission and will generate following error:
  - E SecurityApiTokenInvalid: Invalid Security Token
  - 1.2. If Security Token expired the system stops the submission and will generate following error:
  - E\_SecurityApiTokenExpired: Security Token is Expired
  - 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
- E\_IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will obtain Source Codes and Source Code Descriptions
  - 3.2. The System will generate JSON containing obtained Source Codes and Source Code Descriptions
- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
- list of Source Codes and Source Code Descriptions
- 4.2. If any errors were encountered during processing the system returns JSON containing:
- error: containing code, message, error Id, date

"code-descriptions.json"

# Completed Response Example

(Note: The example does not represent complete list of all Source Codes and Source Code Descriptions)

#### **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
System	E_SystemError	Message describing system error

```
"code": "E_IndustryPermissions",
    "message": "The user does not have Industry permissions for any Site",
    "errorId": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
    "date": "2017-06-23T23:15:45.095+0000"
}
```

#### federal-waste-codes

### **Description**

Returns the list of Federal Waste Codes and Federal Waste Code Descriptions

#### Service Type

RCRAInfo Lookup Service.

#### **Parameters**

 Security Token: Security Token received in Authentication. Will be passed in the Header of the request.

# **Service Invocation Example**

<server url>/rcra-handler/rest/api/v1/lookup/federal-waste-codes

# Sequence of steps

- 1. The System will validate Security Token
- 1.1. If Security Token is invalid the system stops the submission and will generate following error:
- E SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Security Token expired the system stops the submission and will generate following error:
- E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
- E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
- E IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will obtain Source Codes and Source Code Descriptions
  - 3.2. The System will generate JSON containing obtained Federal Waste Codes and Federal Waste Code Descriptions
- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
- list of Federal Waste Codes and Federal Waste Code Descriptions
  - 4.2. If any errors were encountered during processing the system returns JSON containing:
- error: containing code, message, error Id, date

# Response JSON Schema

"code-descriptions.json"

# **Completed Response Example**

(Note: The example does not represent complete list of all Federal Waste Codes and Federal Waste Code Descriptions)

#### **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
System	E_SystemError	Message describing system error

```
Error Response Example
{
    "code": "E_IndustryPermissions",
    "message": "The user does not have Industry permissions for any Site",
    "errorId": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
    "date": "2017-06-23T23:15:45.095+0000"
}
```

#### state-waste-codes

# **Description**

Returns the list of State Waste Codes and State Waste Code Descriptions by State Code.

#### **Parameters**

- Security Token: Security Token received in Authentication. Will be passed in the Header of the request.
- State Code

# Service Type

RCRAInfo Lookup Service.

#### Service Invocation Example

<server url>/rcra-handler/rest/api/v1/lookup/waste-codes/MI

# Sequence of steps

- 1. The System will validate Security Token
- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
- E\_SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
- E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
- E\_SecurityApiInvalidStatus: This API Id is no longer active.
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
- E\_IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will check if provided State Code is valid. If provided State Code is invalid the system will stop the processing and generate following error:
- E\_InvalidStateCode: Provided State Code was not found
  - 3.2. The system will obtain Source Codes and Source Code Descriptions
  - 3.3. The System will generate JSON containing State Waste Codes and State Waste Code Descriptions
- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
- list of State Waste Codes and State Waste Code Descriptions
  - 4.2. If any errors were encountered during processing the system returns JSON containing:
- error: containing code, message, error ld, date

#### Response JSON Schema

"code-descriptions.json"

# Completed Response Example

(Note: The example does not represent complete list of all State Waste Codes and State Waste Code Descriptions for the specified State Code)

```
"code": "PCB5",
    "description": "state defined - polychlorinated biphenyls article container "
},
{
    "code": "020L",
    "description": "Part 121,Liquid Industrial Waste of Michigan's Natural Resources and Environmental "
},
{
    "code": "040U",
    "description": "Clonitralid (Chemical Abstract Services Number 1420-04-8)"
},
{
    "code": "051U ",
    "description": "Diazinon (Chemical Abstract Services Number 333-41-5)"
}
```

# **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
Vaidation	E_InvalidStateCode	Provided State Code was not Found
System	E_SystemError	Message describing system error

# Error Response Example

```
"code": "E_InvalidStateCode ",

"message": "Provided State Code was not Found",

"errorld": "9v7a9808-s35a5-4874-928f-12fc3def4b56",

"date": "2017-06-23T23:15:45.095+0000"
}
```

#### management-method-codes

# **Description**

Returns the list of Management Method Codes and Management Method Code Descriptions

# Service Type

RCRAInfo Lookup Service.

#### **Parameters**

Security Token: Security Token received in Authentication. . Will be passed in the Header of the request.

# **Service Invocation Example**

<server url>/rcra-handler/rest/api/v1/lookup/management-method-codes

# Sequence of steps

- 1. The System will validate Security Token
- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
- E SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
- E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
- E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 1.1. System will check if the User has Site Manager permission for any Site
  - 1.2. If the User does not have permission the System will stop the processing and will generate following error:
- E\_IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will obtain Management Method Codes and Management Method Code Descriptions
  - 3.2. The System will generate JSON containing obtained Management Method Codes and Management Method Code Descriptions
- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
  - list of Management Method Codes and Management Method Code Descriptions
    - 4.2. If any errors were encountered during processing the system returns JSON containing:
- error: containing code, message, error id and error date

# Response JSON Schema

"code-descriptions.json"

# Completed Response Example

(Note: The example does not represent complete list of all Management Method Codes and Management Method Code Descriptions)

```
{
    "code": "H061",
    "description": "FUEL BLENDING"
},
{
    "code": "H040",
    "description": "INCINERATION"
},
{
    "code": "H020",
    "description": "SOLVENTS RECOVERY"
},
{
    "code": "H132",
    "description": "LANDFILL OR SURFACE IMPOUNDMENT"
}
```

#### **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
System	E_SystemError	Message describing system error

# Error Response Example

```
"code": "E_InvalidStateCode ",
"message": "Provided State Code was not Found",
"errorld": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
"date": "2017-06-23T23:15:45.095+0000"
```

#### **Emanifest Data Services**

# manifest-tracking-numbers

# **Description**

}

Returns the list of Manifest Tracking Numbers for all Manifests stored in the system for the provided Site Id. The service won't return Manifests which are in Draft status

#### Service Type

Emanifest Data Service.

#### **Parameters**

- Security Token: Security Token received in Authentication. Will be passed in the Header of the request.
- Site Id: TSDF or Generator Site Id

#### Service Invocation Example

<server url>/rcra-handler/rest/api/v1/emanifest/manifest-tracking-numbers/CAT080025711

- 1. The System will validate Security Token
- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
- E SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
- E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
- E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
- 1.1. System will check if the User has Site Manager (Industry) permissions for the provide Site Id
- 1.2. If the User does not have permission the System will stop the processing and will generate following error:
- E\_SitePermissions: The user does not have permissions for
- 3. The system will process the request
- 3.1. The system will check if provided Site Id has valid format. Valid Site Id format shall be compliant with following rules:
- Two Letter Activity Location Code + Single alphanumeric Character + Up to 9 alphanumeric characters
- 3.2. If provided Site Id is invalid the system will stop processing and generate following error:
- E\_InvalidSiteId: Provided Site Id has invalid format
- 3.3. The System will check if Site with provided Site Id is registered in RCRAInfo
- 3.4. If Site with provided Site Id is not registered in RCRAInfo the system will stop processing and generate following error:
- E\_SiteIsNotFound: Site with Provided Site Id is not Found
- 3.5. The system will obtain Manifest Tracking Numbers for Manifests where Manifest TSDF Site Id matches provided Site Id and for Manifests where Manifest Generator Site Id matches provided Site Id
- 3.6. The System generates JSON containing obtained Manifest Tracking Numbers

- 4. System returns the response
  - 4.1. If the System found manifests for the provided Site Id it returns JSON containing:
  - values : list of obtained Manifest Tracking Numbers
  - 4.2. If no manifests were found for the provided Site Id the system returns JSON containing:
  - empty list
  - 4.3. If any system errors were encountered during processing the system returns JSON containing:
  - error: containing error code, error message, error id, and error date

```
"values.json"
```

# **Return Examples**

#### **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
Validation	E_InvalidSiteId	Provided Site Id has invalid format
Validation	E_SiteIsNotFound	Site with Provided Site Id is not Found
System	E_SystemError	Message describing system error

# **Error Return Examples**

```
Authorization Error Return Example

"code": "E_InvalidStateCode ",

"message": "Provided State Code was not Found",

"errorld": "9v7a9808-s35a5-4874-928f-12fc3def4b56",

"date": "2017-06-23T23:15:45.095+0000"

}
```

```
Validation Error Return Example

{

"code": "E_InvalidSiteId",

"message": "Provided Site Id has invalid format",

"errorId": "9v7a9808-s35a5-4874-928f-12fc3def4b56",

"date": "2017-06-23T23:15:45.095+0000"

}

(GET) manifest
```

## **Description**

Returns the Manifest by provided Manifest Tracking Number. Service always returns Manifest data and optionally can return Manifest attachments. If Manifest contains an attachment(s) and an attachment option is specified following documents will be returned:

- Pdf Document containing printed, scanned and manually signed Manifest form (Printed Document). Note that this document is not available for "Data" submission type
- Pdf Document containing human readable representation of the Manifest data signed electronically (Human Readable Document). Note that the system generates this Document at the time when the Manifest is assigned "ReadyForSignature" Status
- Pdf Document containing form 8700-22 representation of the Manifest Data.

Following document metadata JSON elements will be presented in Manifest JSON if the Manifest contains attachments:

Printed Document metadata example:

```
"printedDocument": {
          "name": "user provided document name.pdf",
          "size": "500KB",
          "mimeType": "application/pdf"
}
```

Human Readable Document metadata example:

- Form 2050 Document metadata example:

All documents will zipped and zip file will be returned as a multipart binary content. See sample client implementation for details

## Service Type

Emanifest Data Service.

#### **Parameters**

- Security Token: Security Token received in Authentication. Will be passed in the Header of the request.
- Manifest Tracking Number
- Attachments indicator

#### **Service Invocation Example without Attachments**

<server url>/rcra-handler/rest/api/v1/emanifest/manifest/100001380ELC

# Service Invocation Example with Attachments

<server url>/rcra-handler/rest/api/v1/emanifest/manifest/100001380ELC/attachments

- 1. The System will validate Security Token
  - 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
  - E\_SecurityApiTokenInvalid: Invalid Security Token
  - 1.2. If Web Security Token expired the system stops the submission and will generate following error:
  - E\_SecurityApiTokenExpired: Security Token is Expired
  - 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager (Industry) permissions for any Site.
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
  - E IndustryPermissions: The user does not have industry permissions for any Site
- 3. The system will process the request
  - 3.1. The system will check if provided Manifest Tracking Number is valid and Manifest with provided Tracking Number is in the system.
    - 3.1.1. Manifest Tracking Number shall be compliant with following rules:
  - Nine numeric characters + valid three character Manifest Tracking Suffix. See the list of valid Manifest Tracking Suffixes in section:
    - 3.1.2. If provided Manifest Tracking Number does not have valid format the processing will be stopped and system will generate following error:
  - E\_InvalidManifestTrackingNumber: Provided Manifest Tracking Number has invalid format
    - 3.1.3. If Manifest with provided Manifest Tracking Number is not in the system the processing will be stopped and system will generate following error:
  - E\_ ManifestTrackingNumberNotFound: Provided Manifest Tracking Number was not found
  - 3.2. The system will obtain the Manifest for the provided Manifest Tracking Number.

- 3.3. The system will check if the user has Industry Permissions for the Generator Site ID or TSDF Site ID provided on the manifest.
- 3.4. If the User does not have permission the System will stop the processing and will generate following error:
- E\_SitePermissions: The user does not have Industry Permissions for the Generator Site or TSDF Site
- 3.5. The System generates JSON containing obtained Manifest
- 4. On success the system returns following response:
  - generated JSON containing obtained Manifest
  - if attachment indicator was specified and Manifest contains attachments all or some following documents will be zipped and returned as a multipart binary content:
    - Printed Document pdf
    - Human Readable pdf
    - Form 2050 pdf
- 5. If any system errors were encountered during processing the system will return:
  - error: containing error code, error message, error id and error date

```
"emanifest.json"
Completed Response Example
    "emanifest": {"createdDate": "2017-04-12T23:20:50.52Z",
    "updatedDate": "2017-05-25T16:05:01.52Z",
    "manifestTrackingNumber": "100001380ELC",
    "status": "Signed",
    "submissionType": "Data",
    "signatureStatus": false,
    "originType": "Web",
    "validationStatus": true,
    "receivedDate": "2017-05-27T10:15:01.52Z",
    "certifiedDate": "2017-05-28T11:02:01.52Z",
    "certifiedBy": {
           "firstName": "John",
           "lastName": "Smith",
           "userId": "jsmith@abc.com"
    "generator": {
            "epaSiteId": "VAX999999999",
           "name": "GENERATOR SITE NAME",
           "mailingAddress": {
                   "address1": "123 X STREET",
                   "city": "BEDFORD",
                   "state": {
                          "code": "MA"
                   "country": {
```

```
"code": "US"
               "zip": "22222"
       },
"siteAddress": {
"address"
               "address1": "123 Main Drive",
               "address2": "",
               "city": "PETERSBURG",
               "state": {
                       "code": "VA"
               "country": {
                       "code": "US"
               "zip": "23803"
       },
"contact": {
"firs
               "firstName": "John",
               "middleInitial": "C",
               "lastName": "Smith",
               "phone": {
                       "number": "703-208-5674",
                       "extension": "3"
       "emergencyPhone": {
               "number": "703-208-5674",
               "extension": "123"
        "paperSignatureInfo": {
               "printedName": "John C Smith",
               "signatureDate": "2017-06-16T17:41:44.782+0000"
       },
},
        "transporters": [
               "siteType": "Transporter",
               "epaSiteId": "CAX000171454",
               "name": "transporter",
               "mailingAddress": {
                       "address1": "123 a st",
                       "city": "city",
                       "state": {
                               "code": "CA",
                               "name": "California"
                       "country": {
                               "code": "US",
                               "name": "USA"
                       "zip": "00000"
```

```
"siteAddress": {
                     "address1": "123 a st",
                     "city": "city",
                     "state": {
                            "code": "CA",
                           "name": "California"
                    },
"country": {
                           "code": "US",
                           "name": "USA"
                     "zip": "00000"
             },
"contact": {
"firs
                     "firstName": "a",
                     "middleInitial": "a",
                    "lastName": "a",
                     "phone": {
                           "number": "000-0000", "extension": "0"
                     "email": "-@-.--",
                     "companyName": "a"
             },
              "electronicSignatureInfo": {
                     "signer": {
                            "firstName": "a",
                            "lastName": "a",
                           "userId": "a"
                     "signatureDate": "a"
              "order": 1.1,
],
"designatedFacility": {
       "epaSiteId": "CA555555555",
       "name": "TSDF SITE NAME",
       "city": "WALL",
              "state": {
```

```
"code": "CA"
                       },
                       "country": {
                              "code": "US"
                       "zip": "93524"
               "siteAddress": {
                       "streetNumber": "",
                       "address1": "456 N. Z BLVD",
                       "city": "WALL",
                       "state": {
                              "code": "CA"
                       "country": {
                              "code": "US"
                       "zip": "93524"
              },
"contact": {
    "firs
                       "firstName": "John",
                       "middleInitial": "C",
                       "lastName": "Smith",
                       "phone": {
                              "number": "703-208-5674",
                              "extension": "3"
               "emergencyPhone": {
                       "number": "703-208-5674"
              },
"electronicSignatureInfo": {
                       "signer": {
                              "firstName": "a",
                              "lastName": "a",
                              "userId": "a"
                       "signatureDate": "a"
               },
       },
"wastes": [
                       "hazardous": true,
                       "dotInformation": {
                              "properShippingName": {
                                      "code": "Toxic by inhalation liquid, corrosive, n.o.s. with an
LC50 lower than or equal to 200 ml/m3 and saturated vapor concentration greater than or equal
to 500 LC50"
                              "idNumber": {
                                      "code": "UN3389"
```

```
"packingGroup": {
                                     "code": "I"
                             "hazardClass": {
                                     "code": "6.1"
                             "printedDotInformation": "UN3389, Toxic by inhalation liquid,
corrosive, n.o.s. with an LC50 lower than or equal to 200 ml/m3 and saturated vapor
concentration greater than or equal to 500 LC50, 6.1, I",
                             "emergencyPhone": {
                                     "number": "661-277-9252"
                             "emergencyGuideNumber": {
                                     "code": "154"
                      "consentNumber": "",
                      "quantity": {
                             "containerNumber": 5,
                             "containerType": {
                                     "code": "CY",
                                     "description": "Cylinders"
                             "quantity": 135.34,
                             "unitOfMeasurement": {
                                     "code": "L",
                                     "description": "Liters"
                                     "density": 13.1,
                                     "densityUnitOfMeasurement": {
                                            "code": "1",
                                            "description": "lbs/gal"
                                    },
"formCode": {
    "code"
                                            "code": "W101",
                                            "description": "DILUTE AQUEOUS WST"
                                     "sourceCode": {
                                            "code": "G08",
                                            "description": "REMOVAL SPENT LIQUID"
                      },
                      "hazardousWaste": {
                             "federalWasteCodes": [
                                            "code": "K069",
                                            "description": "EMISSION CONTROL
```

```
],
                              "tsdfStateWasteCodes": [
                                             "code": "141",
                                             "description": "Off-specification, aged, or surplus
inorganics"
                              ],
                              "managementMethod": {
                                     "code": "H020",
                                     "description": "SOLVENTS RECOVERY"
                      },
"additionalInfo": {
"comment
                              "comments": [
                                             "label": "text",
                                             "description": "text",
                                             "handlerId": "VAD988170486"
                              "handlingInstructions": "handle with care"
                      "lineNumber": 1
       "printedDocument": {
                      "name": "signed-manifest.pdf",
                      "size": "500KB",
                      "mimeType": "application/pdf"
       },
       "humanReadableDocument": {
                      "name": "human-readable.pdf",
                      "size": "50KB",
                      "mimeType": "application/pdf"
       },
       "additionalInfo": {
               "comments": [
                              "label": "text",
                              "description": "text",
                              "handlerId": " VAD999999999"
               "handlingInstructions": "handle with care"
       }
  }
```

#### **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry
		permissions for any Site
Validation	E_InvalidManifestTrackingNumber	Provided Manifest Tracking
		Number has invalid format
Validation	E_ManifestTrackingNumberNotFound	Provided Manifest Tracking
		Number was not found
System	E_SystemError	Message describing system error

# Validation Error Return Example

```
"code": "E_ManifestTrackingNumberNotFound ",
"message": "Provided Manifest Tracking Number is Not Found"
"errorld": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
"date": "2017-06-23T23:15:45.095+0000"
```

## site-ids

}

# **Description**

Returns the list either of all Transporter IDs or all TSDF Ids or all Generator Ids for the provided State Code and Site Type.

# Service Type

Emanifest Data Service.

## **Parameters**

- Security Token: Security Token received in Authentication. Will be passed in the Header of the request
- State Code
- Site Type:
  - "Tsdf"
  - "Generator"
  - "Transporter"

# **Service Invocation Example**

<server url>/rcra-handler/rest/api/v1/emanifest/site-ids/CA/Transporter

# Sequence of steps

1. The System will validate Security Token

- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
  - E\_SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
  - E SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
    - E\_IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system will process the request
  - 3.1. The system will check if provided Site Type is valid.
  - 3.2. Provided Site Type shall contain one of the following values:
    - "Generator"
    - "Tsdf"
    - "Transporter"
  - 3.3. If provided Site Type is invalid the processing will be stopped and system will generate following error:
    - E SiteType: Provided Site Type is not valid
  - 3.4. The system will check if provided State Code is valid. If provided State Code is invalid the processing will be stopped and system will generate following error:
    - E InvalidStateCode: Provided State Code was not found
  - 3.5. Depending on Site Type the system will obtain either Transporter or TSDF or Generator Ids for the provided State Code
  - 3.6. The System generate JSON containing obtained Site Ids
  - 3.7. If no Site Ids were found the system generate empty list
- 4. The System returns the response
  - 4.1. If site ids were found the system returns generated JSON containing following information:
    - values: list of site Ids
  - 4.2. If no sites were found the system returns JSON containing following information:
    - Empty list
  - 4.3. If any authentication, authorization, validation, or system error was encountered the system returns JSON containing:
    - error: containing error code, error message, error id, error date

"values.json"

#### **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
Validation	E_InvalidStateCode	Provided State Code was not found
Validation	E_InvalidSiteType	Provided Site Type is invalid
System	E_SystemError	Message describing system error

# Error Response Example {

```
"code": "E_InvalidStateCode ",

"message": "Provided State Code was not foundd "

"errorld": "9v7a9808-s35a5-4874-928f-12fc3def4b56",

"date": "2017-06-23T23:15:45.095+0000"
}
```

# **Emanifest Lookup Services**

# printed-tracking-number-suffixes

# **Description**

Returns the list of all Printed Manifest Tracking Number suffixes and the Owner Companies

# Service Type

Emanifest Lookup Service.

#### **Parameters**

 Security Token: Security Token received in Authentication. Will be passed in the Header of the request.

# Service Invocation Example

<server url>/rcra-handler/rest/api/v1/emanifest/lookup/printed-tracking-number-suffixes

# Sequence of steps

1. The System will validate Security Token

- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
  - E\_SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
  - E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
  - E\_IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will obtain Printed Manifest Tracking Number suffix and the Owner Company for each suffix
  - 3.2. The System will generate JSON containing obtained Printed Manifest Tracking Number Suffixes information
- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
  - list of Printed Manifest Tracking Number Suffixes and Owner Companies
  - 4.4. If any errors were encountered during processing the system returns JSON containing:
    - error: containing error code, error message, error id and error date

"code-descriptions.json"

# **Completed Response Example**

(Notes: Printed Manifest Tracking Number Suffixes represent current state and can change. Manifest Tracking Numbers with "ELC" Suffix will be supported for June release)

```
{
    "code": "ELC",
    "description": "Electronic Manifest"
},
{
    "code": "CTN",
    "description": "Nutmeg Environmental"
},
{
    "code": "DAT",
    "description": "Databar Inc."
},
```

```
{
       "code": "FLE",
       "description": "The Flesh Company"
       "code": "GBF",
       "description": "Genoa Business Forms"
},
{
       "code": "GRR",
       "description": "Giant Resource Recovery"
},
       "code": "JJK",
       "description": "J.J. Keller & Associates, Inc."
},
       "code": "MWI",
       "description": "RR Donnelley"
},
       "code": "PBC",
       "description": "Progressive Business Compliance"
},
       "code": "PSC, LLC",
       "description": ""
},
       "code": "SKS",
       "description": "Safety-Kleen Systems, Inc."
       "code": "UIS",
       "description": "United Industrial Services"
       "code": "VES",
       "description": "Veolia ES Technical Solutions"
},
       "code": "WAS",
       "description": "Welsh & Associates"
},
       "code": "SRC",
       "description": "Stericycle"
},
```

#### **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
System	E_SystemError	Message describing system error

```
System Error Response Example
{
    "type": "System",
    "code": "E_SystemError",
    "message": "System Error Description"
    "errorId": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
    "date": "2017-06-23T23:15:45.095+0000"
}
```

# proper-shipping-names

# **Description**

Returns the list of all DOT Proper Shipping Names

# Service Type

Emanifest Lookup Service.

#### **Parameters**

• Security Token: Security Token received in Authentication. Will be passed in the Header of the request.

# **Service Invocation Example**

<server url>/rcra-handler/rest/api/v1/emanifest/lookup/proper-shipping-names

- 1. The System will validate Security Token
- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
  - E\_SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
  - E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.

- 2.1. System will check if the User has Site Manager permission for any Site
- 2.2. If the User does not have permission the System will stop the processing and will generate following error:
- E\_IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will obtain Proper Shipping Names
  - 3.2. The System will generate JSON containing obtained Proper Shipping Names
- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
  - list of Proper Shipping Names
  - 4.5. If any errors were encountered during processing the system returns JSON containing:
    - error: containing error code, error message, error id, error date

"values.json"

#### **Completed Response Example**

(Note: Example does not display all Proper Shipping Names which will be returned by the service)

```
"1,1,1-Trifluoroethane or Refrigerant gas, R 143a",
"1,1-Difluoroethane or Refrigerant gas R 152a",
"1,1-Difluoroethylene or Refrigerant gas R 1132a".
"1-Chloro-1,1-difluoroethane or Refrigerant gas R 142b",
"2,2-Dimethylpropane",
"Acetylene, dissolved".
"Aerosols, flammable, (each not exceeding 1 L capacity)",
"Aerosols, flammable, n.o.s. (engine starting fluid) (each not exceeding 1 L capacity)",
"Bromotrifluoroethylene",
"Butadienes, stabilized or Butadienes and Hydrocarbon mixture, stabilized containing
more than 40% butadienes",
"Butane see also Petroleum gases, liquefied",
"Butylene see also Petroleum gases, liquefied",
"Chemical under pressure, flammable, corrosive, n.o.s",
"Chemical under pressure, flammable, n.o.s",
"Chemical under pressure, flammable, toxic, n.o.s"
```

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
System	E_SystemError	Message describing system error

```
Authorization Error Response Example

{

"code": "E_IndustryPermissions",

"description": "The user does not have Industry permissions for any Site"

"errorId": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
}
```

#### id-numbers

# **Description**

Returns the list of all DOT Id Numbers

## Service Type

Emanifest Lookup Service.

#### **Parameters**

 Security Token: Security Token received in Authentication. Will be passed in the Header of the request.

# **Service Invocation Example**

<server url>/rcra-handler/rest/api/v1/emanifest/lookup/id-numbers

- 1. The System will validate Security Token
- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
  - E SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
  - E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
    - E\_IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will obtain Id Numbers
  - 3.2. The System will generate JSON containing obtained Id Numbers

- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
  - list of Id Numbers
  - 4.6. If any errors were encountered during processing the system returns JSON containing:
    - error: containing error code, error message, error id, error date

"values.json"

## Completed Response Example

(Note: Example does not display all ID Numbers which will be returned by the service)

```
"UN2035",
"UN1030",
"UN1959",
"UN2517",
"UN2044",
"UN1001",
"UN1950",
"UN1950",
"UN2419",
"UN1010",
"UN1011",
"UN1012",
"UN3505",
"UN3501",
"UN3504",
"UN1954",
"UN2601",
"UN1027",
"UN1957",
"UN3150"
```

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
System	E_SystemError	Message describing system error

```
Error Response Example
```

```
"code": "E_IndustryPermissions",

"message": "The user does not have Industry permissions for any Site"

"errorld": "9v7a9808-s35a5-4874-928f-12fc3def4b56",

"date": "2017-06-23T23:15:45.095+0000"
}
```

# id-numbers-by-shipping-name

#### **Description**

Returns the list of Id Numbers by the Proper Shipping Name.

## Service Type

Emanifest Lookup Service.

#### **Parameters**

- Security Token: Security Token received in Authentication. Will be passed in the Header of the request.
- Proper Shipping Name

## **Service Invocation Example**

<server url>/rcra-handler/rest/api/v1/emanifest/lookup/id-numbers-by-shippingname/Phosphorus heptasulfide, free from yellow or white phosphorus

- 1. The System will validate Security Token
  - 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
    - E\_SecurityApiTokenInvalid: Invalid Security Token
  - 1.2. If Web Security Token expired the system stops the submission and will generate following error:
    - E\_SecurityApiTokenExpired: Security Token is Expired
  - 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
    - E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
    - E\_IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will obtain Id Numbers for the provided Proper Shipping Name

- 3.2. System will check if the size of provided Proper Shipping Name does not exceed 300 characters.
- 3.3. If the size of provided Proper Shipping Name exceeds 300 characters the system stops processing and generate following error:
  - E\_InvalidProperShippingName: Invalid Proper Shipping Name
- 3.4. The System generate JSON containing obtained Id Numbers
- 3.5. If no Id Numbers were found the system stops processing and generates following error:
  - E ProperShippingNameNotFound: "Proper Shipping Name Not Found"
- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
    - list of Id Numbers
  - 4.2. If any errors were encountered during processing the system returns JSON containing:
    - error: containing error code, error message, error id, error date

```
"values.json"

Completed Response Example

[
    "UN1339",
    "UN1340",
    "UN1341"
```

#### **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry
		permissions for any Site
Validation	E_InvalidProperShippingName	Invalid Proper Shipping Name
Validation	E_ProperShippingNameNotFound	Proper Shipping Name Not Found
System	E_SystemError	Message describing system error

# Validation Error Response Example

```
"code": "E_InvalidProperShippingName ",

"message": "Invalid Proper Shipping Name"

"errorld": "9v7a9808-s35a5-4874-928f-12fc3def4b56",

"date": "2017-06-23T23:15:45.095+0000"
}
```

# proper-shipping-names-by-id-number

### **Description**

Returns the list of the Proper Shipping Names by Id Number

#### Service Type

Emanifest Lookup Service.

#### **Parameters**

- Security Token: Security Token received in Authentication. Will be passed in the Header of the request.
- Id Number

# **Service Invocation Example**

<server url>/rcra-handler/rest/api/v1/emanifest/lookup/proper-shipping-names-by-idnumber/NA1760

- 1. The System will validate Security Token
- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
  - E\_SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
  - E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
    - E IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will check if provided Id Number has valid format.
  - 3.2. Provided Id Number shall be compliant with the following format:
    - Length 6 characters
    - First 2 characters either "UN" or "NA" + 4 numeric characters
  - 3.3. If provided Id Number has invalid format the system stops processing and generates following error:
    - E InvalidIdNumber: Invalid Id Number
  - 3.4. The system will obtain Proper Shipping Names for the provided Id Number
  - 3.5. The System generates JSON containing obtained Id Numbers

- 3.6. If no Id Numbers were found the system stops processing and generates following error:
  - E ProperShippingNameNotFound: Proper Shipping Names not found for provided Id Number
- 4. The system returns response
  - 4.2. If Request was completed the system will return JSON containing:
    - list of Id Numbers
  - 4.3. If any errors were encountered during processing the system returns JSON containing:
    - error: containing error code, error message, error id, and error date

```
"values.json"
```

# **Completed Response Example**

```
"Chemical kit",
     "Compounds, cleaning liquid",
     "Compounds, tree killing, liquid or Compounds, weed killing, liquid",
     "Ferrous chloride, solution"
]
```

#### **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
Validation	E_InvalidIdNumber	Invalid Id Number
Validation	E_ProperShipping	Proper Shipping Name not found for
	NameNotFound	provided Id Number
System	E_SystemError	Message describing system error

# Validation Error Response Example

```
"code": " E_InvalidIdNumber ",
   "message": "Invalid Id Number"
   "errorld": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
   "date": "2017-06-23T23:15:45.095+0000"
}
```

#### hazard-classes

{

# **Description**

Returns the list of all Hazard Classes

## Service Type

Emanifest Lookup Service.

#### **Parameters**

Security Token: Security Token received in Authentication

## **Service Invocation Example**

<server url>/rcra-handler/rest/api/v1/emanifest/lookup/hazard-classes

# Sequence of steps

- 1. The System will validate Security Token
- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
  - E SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
  - E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
  - E\_IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will obtain Hazard Classes
  - 3.2. The System will generate JSON containing obtained Hazard Classes
- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
  - list of Hazard Classes
  - 4.2. If any errors were encountered during processing the system returns JSON containing:
    - containing error code, error message, error id, and error date

## Response JSON Schema

```
"values.json"
```

## **Completed Response Example**

(Note: Example does not display all Hazard Classes which will be returned by the service)

```
[
"1.2H",
"1.2J",
```

```
"1.2K",
"1.2L",
"1.3C",
"1.3G"
"1.3H",
"1.3J",
"1.3K",
"1.3L",
"1.4B"
"1.4C",
"1.4D",
"1.4E",
"1.4F",
"1.4G",
"1.4S",
"1.5D",
"1.6N",
"combustible liquid"
```

# **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
System	E_SystemError	Message describing system error

```
Error Response Example
{
    "code": "E_IndustryPermissions",
    "message": "The user does not have Industry permissions for any Site"
    "errorId": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
    "date": "2017-06-23T23:15:45.095+0000"
```

# hazard-class-by-shipping-name-id-number

# **Description**

Returns the list of Hazard Classes by the combination of Proper Shipping Name and Id Number.

### Service Type

Emanifest Lookup Service.

#### **Parameters**

• Security Token: Security Token received in Authentication

- Proper Shipping Name
- Id Number

### **Service Invocation Example**

<server url>/rcra-handler/rest/api/v1/emanifest/lookup/hazard-class-by-shipping-name-id-number/Ammonia solution, relative density less than 0.880 at 15 degrees C in water, with more than 50 percent ammonia/UN3318

# Parameters Example

```
{
  "properShippingName": "Ammonia solution, relative density less than 0.880 at 15
degrees C in water, with more than 50 percent ammonia ",
  "idNumber": " UN3318 "
}
```

- 1. The System will validate Security Token
- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
  - E\_SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
  - E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
  - E IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. System will check if the size of provided Proper Shipping Name does not exceed 300 characters.
  - 3.2. If the size of provided Proper Shipping Name exceeds 300 characters the system stops processing and generate following error:
  - E InvalidProperShippingName: Invalid Proper Shipping Name
  - 3.3. The system will check if provided Id Number has valid format.
  - 3.4. Provide Id Number shall be compliant with the following format:
  - First 2 characters either "UN" or "NA"+ 4 numeric characters
  - 3.5. If provided Id Number has invalid format the system stops processing and generates following error:

- E InvalidIdNumber: Invalid Id Number
- 3.6. The system will obtain Hazard Classes for the provided Proper Shipping Name and Id Number
- 3.7. If Proper Shipping Name was not found the system stops processing and generates following error:
- E\_ProperShippingNameNotFound: Proper Shipping Name Not Found
- 3.8. If Id Number was not found the system stops processing and generates following error:
  - E IdNumberNotFound: Id Number Not Found
- 3.9. If combination of Proper Shipping Name and Id Number was not found the system stops processing and generates following error:
- E\_CombinationProperShippingNameIdNumberNotFound: combination of Proper Shipping Name and Id Number was not found
- 3.10. The System will generate JSON containing obtained Hazard Classes
- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
  - list of Hazard Classes
  - 4.2. If any errors were encountered during processing the system returns JSON containing:
  - containing error code, error message, error id, and error date

```
"values.json"
```

# Completed Response Example

```
[
"2.2",
"2.3"
```

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions for any Site
Validation	E_InvalidProperShippingName	Invalid Proper Shipping Name
Validation	E_InvalidIdNumber	Invalid Id Number
Validation	E_ProperShippingNameNotFound	Proper Shipping Name Not Found
Validation	E_IdNumberNotFound	Id Number not Found
Validation	E_CombinationProperShippingNameIdN umberNotFound	Combination of Proper Shipping Name and Id Number was not found
System	E_SystemError	Message describing system

error

```
Error Response Example
```

```
"code": "E_CombinationProperShippingNameIdNumberNotFound",
"message": "Combination of Proper Shipping Name and Id Number was not found"
"errorld": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
"date": "2017-06-23T23:15:45.095+0000"
}
```

## packing-groups

## **Description**

Returns the list of all DOT Packing Groups

### Service Type

Emanifest Lookup Service.

#### **Parameters**

• Security Token: Security Token received in Authentication

# **Service Invocation Example**

<server url>/rcra-handler/rest/api/v1/emanifest/lookup/packing-groups

- 1. The System will validate Security Token
- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
  - E\_SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
  - E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
    - E IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will obtain Packing Groups
  - 3.2. The System will generate JSON containing obtained Packing Groups

- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
  - list of Packing Groups
  - 4.2. If any errors were encountered during processing the system returns JSON containing:
    - containing error code, error message, error id, and error date

```
"values.json"
```

## **Completed Response Example**

```
[
"I",
"II",
"III"
```

#### **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
System	E_SystemError	Message describing system error

# Error Response Example

```
"code": "E_IndustryPermissions",
   "message": "The user does not have Industry permissions for any Site"
   "errorId": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
   "date": "2017-06-23T23:15:45.095+0000"
}
```

### packing-groups-by-shipping-name-id-number

### **Description**

Returns the list of Packing Groups by the combination of Proper Shipping Name and Id Number.

# Service Type

Emanifest Lookup Service.

#### **Parameters**

- Security Token: Security Token received in Authentication
- Proper Shipping Name
- Id Number

#### Service Invocation Example

<server url>/rcra-handler/rest/api/v1/emanifest/lookup/packing-groups-by-shipping-name-id-number/Ammonia solution, relative density less than 0.880 at 15 degrees C in water, with more than 50 percent ammonia/UN3318

- 1. The System will validate Security Token
- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
  - E SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
  - E SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
  - E IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. System will check if the size of provided Proper Shipping Name does not exceed 300 characters.
  - 3.2. If the size of provided Proper Shipping Name exceeds 300 characters the system stops processing and generate following error:
  - E InvalidProperShippingName: Invalid Proper Shipping Name
  - 3.3. The system will check if provided Id Number has valid format.
  - 3.4. Provide Id Number shall be compliant with the following format:
  - First 2 characters either "UN" or "NA"+ 4 numeric characters
  - 3.5. If provided Id Number has invalid format the system stops processing and generates following error:
  - E InvalidIdNumber: Invalid Id Number
  - 3.6. The system will obtain Packing Group for the provided Proper Shipping Name and Id Number
  - 3.7. If Proper Shipping Name was not found the system stops processing and generates following error:
    - E ProperShippingNameNotFound: Proper Shipping Name Not Found
  - 3.8. If Id Number was not found the system stops processing and generates following error:
  - E IdNumberNotFound: Id Number Not Found
  - 3.9. If combination of Proper Shipping Name and Id Number was not found the system stops processing and generates following error:

- E\_CombinationProperShippingNameIdNumberNotFound: combination of Proper Shipping Name and Id Number was not found
- 3.10. The System will generate JSON containing obtained Packing Groups
- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
  - list of Packing Groups
  - 4.2. If any errors were encountered during processing the system returns JSON containing:
    - containing error code, error message, error id, and error date

"values.json"

# Completed Response Example

```
[
"|",
"||"
```

#### **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions for any Site
Validation	E_InvalidProperShippingName	Invalid Proper Shipping Name
Validation	E_InvalidIdNumber	Invalid Id Number
Validation	E_ProperShippingNameNotFound	Proper Shipping Name Not Found
Validation	E_IdNumberNotFound	Id Number not Found
Validation	E_CombinationProperShippingNameIdN umberNotFound:	Combination of Proper Shipping Name and Id Number was not found
System	E_SystemError	Message describing system error

# Error Response Example

{

```
"code": "E_CombinationProperShippingNameIdNumberNotFound",

"message": "Combination of Proper Shipping Name and Id Number was not found"

"errorld": "9v7a9808-s35a5-4874-928f-12fc3def4b56",

"date": "2017-06-23T23:15:45.095+0000"

}
```

#### emergency-numbers

## **Description**

Returns the list of all DOT Emergency Response Guidebook Numbers

#### Service Type

Emanifest Lookup Service.

#### **Parameters**

• Security Token: Security Token received in Authentication

## Service Invocation Example

<server url>/rcra-handler/rest/api/v1/emanifest/lookup/emergency-numbers

## Sequence of steps

- 1. The System will validate Security Token
- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
  - E SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
  - E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
  - E\_IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will obtain Emergency Response Guidebook Numbers
  - 3.2. The System will generate JSON containing obtained Emergency Response Guidebook Numbers
- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
  - list of Emergency Response Guidebook Numbers
  - 4.7. If any errors were encountered during processing the system returns JSON containing:
    - containing error code, error message, error id, and error date

### Response JSON Schema

"values.json"

# Completed Response Example

(Note: Example does not display all Emergency Response Guidebook Numbers which will be returned by the service)

```
[
"112",
"114",
"115",
"116",
"117",
"118",
"119",
"120",
"121",
"122",
"123"
```

### **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
System	E_SystemError	Message describing system error

```
Error Response Example
{
    "code": "E_IndustryPermissions",
    "message": "The user does not have Industry permissions for any Site"
    "errorId": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
    "date": "2017-06-23T23:15:45.095+0000"
}
```

# emergency-numbers-by-id-number

# **Description**

Returns DOT Emergency Response Guidebook Numbers by Id Number

# Service Type

Emanifest Lookup Service.

#### **Parameters**

- Security Token: Security Token received in Authentication
- Id Number

#### Service Invocation Example

<server url>/rcra-handler/rest/api/v1/emanifest/lookup/emergency-numbers-by-idnumber/UN3166

- 1. The System will validate Security Token
- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
  - E\_SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
  - E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
  - E\_IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will check if provided Id Number has valid format.
  - 3.2. Provide Id Number shall be compliant with the following format:
  - First 2 characters either "UN" or "NA" + 4 numeric characters
  - 3.3. If provided Id Number has invalid format the system stops processing and generates following error:
  - E InvalidIdNumber: Invalid Id Number
  - 3.4. The system will obtain Emergency Response Guidebook Number for the provided Id Number
  - 3.5. If Id Number was not found the system stops processing and generates following error:
  - E IdNumberNotFound: Id Number Not Found
  - 3.6. The System will generate JSON containing obtained Emergency Response Guidebook Numbers
- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
  - list of Emergency Response Guidebook Numbers
  - 4.2. If any errors were encountered during processing the system returns JSON containing:
    - containing error code, error message, error id, and error date

```
"values.json"
```

# **Completed Response Example**

```
l
"112",
"113"
```

#### **Errors**

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
Validation	E_InvalidIdNumber	Invalid Id Number
Validation	E_IdNumberNotFound	Id Number not Found
System	E_SystemError	Message describing system error

# Error Response Example

```
"code": "E_IndustryPermissions",

"message": "The user does not have Industry permissions for any Site"

"errorld": "9v7a9808-s35a5-4874-928f-12fc3def4b56",

"date": "2017-06-23T23:15:45.095+0000"
}
```

# container-types

### **Description**

Returns the list of all Container Types and Container Type Descriptions.

# Service Type

Emanifest Lookup Service.

#### **Parameters**

• Security Token: Security Token received in Authentication

### Service Invocation Example

<server url>/rcra-handler/rest/api/v1/emanifest/lookup/container-types

- 1. The System will validate Security Token
- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:

- E SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
  - E\_SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
  - E\_IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will obtain Container Types and Container Type Descriptions
  - 3.2. The System will generate JSON containing obtained Container Types and Container Type Descriptions
- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
    - list of Container Types and Container Type Descriptions
  - 4.2. If any errors were encountered during processing the system returns JSON containing:
    - error: containing error code, error message, error id and error date

```
"code-descriptions.json"
```

```
Completed Response Example
```

```
{
    "code": "BA",
    "description": "Burlap, cloth, paper, or plastic bags"
},
{
    "code": "DT",
    "description": "Dump truck"
},
{
    "code": "CF",
    "description": "Fiber or plastic boxes, cartons, cases"
},
{
    "code": "DW",
    "description": "Wooden drums, barrels, kegs"
},
{
    "code": "CM",
    "description": "Metal boxes, cartons, cases (including roll offs) "
```

```
},
{
               "code": "HG",
               "description": "Hopper or gondola cars"
       },
               "code": "CW",
               "description": "Wooden boxes, cartons, cases"
       },
               "code": "TC",
               "description": "Tank cars"
               "code": "CY",
               "description": "Cylinders"
               "code": "TP",
               "description": "Portable tanks"
       },
               "code": "DF",
               "description": "Fiberboard or plastic drums, barrels, kegs"
       },
               "code": "TT",
               "description": "Cargo tanks (tank trucks)"
       },
               "code": "DM",
               "description": "Metal drums, barrels, kegs"
]
```

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
System	E_SystemError	Message describing system error

```
Error Response Example
{
    "code": "E_IndustryPermissions",
```

```
"message": "The user does not have Industry permissions for any Site"
"errorld": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
"date": "2017-06-23T23:15:45.095+0000"
}
```

### quantity-uom

## **Description**

Returns the list of Quantity UOM Codes and Descriptions

## Service Type

Emanifest Lookup Service.

#### **Parameters**

• Security Token: Security Token received in Authentication

#### Service Invocation Example

<server url>/rcra-handler/rest/api/v1/emanifest/lookup/quantity-uom

- 1. The System will validate Security Token
- 1.1. If Web Security Token is invalid the system stops the submission and will generate following error:
  - E SecurityApiTokenInvalid: Invalid Security Token
- 1.2. If Web Security Token expired the system stops the submission and will generate following error:
  - E SecurityApiTokenExpired: Security Token is Expired
- 1.3. If Account was Inactivated after the token was issued the system stops the submission and will generate following error:
  - E\_SecurityApiInvalidStatus: This API Id is no longer active
- 2. The system will perform User Authorization.
  - 2.1. System will check if the User has Site Manager permission for any Site
  - 2.2. If the User does not have permission the System will stop the processing and will generate following error:
  - E\_IndustryPermissions: The user does not have Industry permissions for any Site
- 3. The system process the request
  - 3.1. The system will obtain Quantity UOM Codes and Descriptions
  - 3.2. The System will generate JSON containing obtained Quantity UOM Codes and Descriptions
- 4. The System returns response:
  - 4.1. If Request was completed the system will return JSON containing:
    - list of Quantity UOM Codes and Descriptions
  - 4.2. If any errors were encountered during processing the system returns JSON containing:
  - error: containing error code, error message, error id, and error date

```
"code-descriptions.json"
```

```
Completed Response Example
```

```
"code": "P",
               "description": "Pounds"
       },
               "code": "T",
               "description": "Tons (2000 Pounds) "
       },
               "code": "K",
               "description": "Kilogram"
       },
               "code": "M",
               "description": "Metric Tons (1000 Kilograms) "
               "code": "G",
               "description": "Gallons"
       },
               "code": "L",
               "description": "Liters"
       },
               "code": "Y",
               "description": "Cubic Yards "
       },
               "code": "N",
               "description": "Cubic Meters"
       }
]
```

Туре	code	Description
N/A	E_SecurityApiTokenInvalid	Invalid Security Token
N/A	E_SecurityApiTokenExpired	Security Token is Expired
N/A	E_SecurityApiInvalidStatus	This API Id is no longer active
Authorization	E_IndustryPermissions	The user does not have Industry permissions
		for any Site
System	E_SystemError	Message describing system error

#### **Error Response Example**

# **Services Scenarios Examples**

#### Prerequisite:

- 5. The User is registered as Site Manager for at least one Facility.
- 6. The User received API Id and API Key to conduct Industry Services
  See section User Registration process for details

#### **Obtaining Manifest for the Site**

- 1. Requester performs auth service to obtain Security Token. See details in section auth.
- 2. If Authentication process was successful the service returns Security Token. This Security Token shall be stored for the duration of the session. It will be passed to all the services.
- 3. Requester performs *manifest-tracking-numbers* service to obtain the list of Manifest Tracking Numbers for all Manifests stored in the system for the provided Site Id.
- 4. If there are Manifests for the provided Site Id the *manifest-tracking-numbers* service returns the list of Manifest Tracking Numbers.
- 5. If there is no Manifests for the provided Site Id the *manifest-tracking-numbers* service returns empty list.
- 6. Requester performs *manifest* service to obtain Manifest.

### **Obtaining Site Ids for the State**

- 1. Requester performs *auth* services to obtain Security Token. See details in section *auth*.
- 2. If Authentication process was successful the service returns Security Token. This Security Token shall be stored for the duration of the session. It will be passed to all the services.
- 3. Requester performs *site-ids* service to obtain the list either of all Transporter IDs or all TSDF Ids or all Generator Ids for the provided State Code and Site Type.
- 4. *site-ids* service returns list of the either of all Transporter IDs or all TSDF Ids or all Generator Ids.

### **Obtaining Site Details**

- 1. Requester performs *auth* services to obtain Security Token. See details in section *auth*.
- 2. If Authentication process was successful the service returns Security Token. This Security Token shall be stored for the duration of the session. It will be passed to all the services.
- 3. Requester performs site-details service to obtain Site Details by Site Id.
- 4. *site-details* service returns Site Details.

# (POST) manifest field validation

- 1. Service supports following manifest submission type:
- Data
- DataImage1Copy
- Hybrid
- 2. Service can be invoked with the following manifest submission statuses:
- Pending
- Scheduled
- InTransit
- Received
- ReadyForSignature
- 3. Following table describes Manifest JSON field validation for the supported manifest submission scenarios for each of the submission status

Object	Field	Validation	Pending	Scheduled	InTransit	Received	ReadyForSi	Errors
							gnature	
Emanifest	createdDate	Date-time format	mandatory	mandatory	mandatory	mandatory	mandatory	<ol> <li>Mandatory         <ul> <li>Field is not</li> <li>provided</li> </ul> </li> <li>Invalid         <ul> <li>Format</li> </ul> </li> </ol>
	status	One of the following values: "Pending", "Scheduled", "InTransit", "Received", "Ready	mandatory	mandatory	mandatory	mandatory	mandatory	Mandatory     field is not     provided.

		ForSignature"						2. Invalid Format. One of the following values must be provided: "Pending", "Scheduled", "InTransit","Recei ved","ReadyForSi gnature"
	submissionTy pe	One of the following values: "Data","DataImage1Copy", "Hybrid"	mandatory	mandatory	mandatory	mandatory	mandatory	<ol> <li>Mandatory         Field is not         provided.</li> <li>Invalid         Format. One         of the         following         values must         be provided:         "Data","DataImag         e1Copy",         "Hybrid"</li> </ol>
	printedDocum ent	If printedDocument is provided the service expects an attachment	N/A	N/A	N/A	optional	mandatory	See Document for details
Document	name	Valid file name with "pdf" extension						Mandatory     Field is not     provided     Invalid     format
	size	Document size						Invalid format
	mimeType	"application/pdf"						Invalid format. Following value

Emanifest.			mandatory	mandatory	mandatory	mandatory	mandatory	must be provided : "application/pdf" Mandatory Field
generator	mailingAddres s	See details in Validation Logic for Generator and Transporter Site Id and Site Information	optional	optional	optional	optional	optional	is not Provided  1. Mandatory Field is not Provided  2. Invalid Format
	siteAddress	See details in Validation Logic for Generator and Transporter Site Id and Site Information	optional	optional	optional	optional	optional	<ol> <li>Mandatory         <ul> <li>Field is not</li> <li>Provided</li> </ul> </li> <li>Invalid         <ul> <li>Format</li> </ul> </li> </ol>
	epaSiteId	Two Letter Activity Location Code + Single alphanumeric Character + Up to 9 alphanumeric characters	mandatory	mandatory	mandatory	mandatory	mandatory	1. Mandatory Field is not provided 2. Invalid format. Two Letter Activity Location Code + Single alphanumeric Character + Up to 9 alphanumeric characters is required
	name	Alphanumeric up to 80 characters. See details in Validation Logic for	optional	optional	optional	optional	optional	Mandatory     Field is not     provided

								2. Invalid format. Alphanumeri c value up to 80 characters is required.
	paperSignatur eInfo	Generator paperSignatureInfo is: - mandatory for the "DataImage1Copy" - N/A for "Data" - N/A for "Hybrid	N/A	N/A	N/A	optional	mandatory	Mandatory Field is not Provided
	Contact.phon e	See details in Validation Logic for Generator and Transporter Site Id and Site Information	mandatory	mandatory	mandatory	mandatory	mandatory	<ol> <li>Mandatory         Field is not         Provided</li> <li>Invalid Field         format</li> </ol>
	emergencyPh one		mandatory	mandatory	mandatory	mandatory	mandatory	Mandatory Field is not Provided
Emanifest. transporte r(s)		For Statuses where Transporter is mandatory at least one transporter shall be specified	optional	mandatory	mandatory	mandatory	mandatory	No Transporters specified. At least one Transporter is required for Scheduled, InTransit, Received, ReadyForSignatur e Status
	siteAddress	See details in Validation Logic for Generator and Transporter Site Id and Site Information						Mandatory     Field is not     Provided     Invalid Field     Format
	epaSiteId	Two Letter Activity Location	mandatory	mandatory	mandatory	mandatory	mandatory	1. Mandatory

		Code + Single alphanumeric Character + Up to 9 alphanumeric characters						Field is not provided  2. Invalid format. Two Letter Activity Location Code + Single alphanumeric Character + Up to 9 alphanumeric characters is required
	name	Alphanumeric up to 80 characters. See details in Validation Logic for Generator and Transporter Site Id and Site Information	optional	optional	optional	optional	optional	<ol> <li>Mandatory         Field is not         provided</li> <li>Invalid         format.         Alphanumeri         c value up to         80 characters         is required.</li> </ol>
	paperSignatur eInfo	Transporter paperSignatureInfo is: - mandatory for the "DataImage1Copy" - N/A for "Data" - mandatory for "Hybrid"	N/A	N/A	N/A	Optional	mandatory	Mandatory Field is not Provided
	Contact.phon e	See details in Validation Logic for Generator and Transporter Site Id and Site Information	optional	optional	optional	optional	optional	Mandatory Field is not Provided
Emanifest.			mandatory	mandatory	mandatory	mandatory	mandatory	

designate dFacility								
	mailingAddres s	If specified will be stored as Generator mailing address	optional	optional	optional	optional	optional	Mandatory Field is not Provided
	siteAddress	If specified will be stored as Generator site address	optional	optional	optional	optional	optional	Mandatory Field is not Provided
	epaSiteId	Two Letter Activity Location Code + Single alphanumeric Character + Up to 9 alphanumeric characters	mandatory	mandatory	mandatory	mandatory	mandatory	1. Mandatory Field is not Provided  2. Invalid Field Format Invalid format. Two Letter Activity Location Code + Single alphanumeric Character + Up to 9 alphanumeric characters is required
	name	Alphanumeric up to 80 characters. If specified will be stored as Generator name	optional	optional	optional	optional	optional	<ol> <li>Mandatory         Field is not         Provided</li> <li>Invalid         format.         Alphanumeri         c value up to</li> </ol>

								80 characters is required.
	paperSignatur eInfo	Designated Facility paperSignatureInfo is: - mandatory for the "DataImage1Copy" - N/A for "Data" - mandatory for "Hybrid"	N/A	N/A	N/A	optional	mandatory	Mandatory Field is not Provided
	Contact.phon	If specified will be stored as Generator contact phone	mandatory	mandatory	mandatory	mandatory	mandatory	Mandatory Field is not Provided
Phone	number	If number is provided it shall be compliant with phone number format XXX-XXX-XXXX.						Invalid format. Phone number format shall be XXX-XXX-XXXX.
	extension	Optional field. If provided max length 6						Invalid format.
Address	streetNumber	Optional field. If provided max length 12						
	address1	Mandatory field. Max length 80						<ol> <li>Mandatory field is not provided</li> <li>Invalid format. Max length 80</li> </ol>
	address2	Optional field. Max length 80						Invalid Format.  Max length 80
	city	Mandatory field. Max length 25						<ol> <li>Mandatory field is not provided</li> <li>Invalid format. Max length 25</li> </ol>
	state.code	Mandatory field. Valid State Code						Mandatory     field is not

	country	Optional field						provided 2. Invalid format. 1. Mandatory field is not provided 2. Invalid format.
	zip	Mandatory field. Valid zip.						1. Mandatory field is not provided 2. Invalid format.
PaperSign atureInfo			N/A	N/A	N/A	N/A	mandatory	Mandatory Field for ReadyForSignatur e status
	printedName	Max length 255	N/A	N/A	N/A	N/A	mandatory	<ol> <li>Mandatory         Field is not         Provide</li> <li>Invalid         Format</li> </ol>
	signatureDate	Date-time format	N/A	N/A	N/A	N/A	mandatory	Mandatory     Field is not     provided     Invalid     Format
Emanifest. waste			optional	mandatory	mandatory	mandatory	mandatory	Mandatory Field is not Provide. At least one Waste be provided for Scheduled,

hazardous	true/false	mandatory	mandatory	mandatory	mandatory	mandatory	InTransit, Received, ReadyForSignatur e Status  1. Mandatory field is not provided 2. Invalid field format
wasteDescrip tion	If hazardous== false wasteDescription is mandatory and dotInformation shall not be specified	mandatory	mandatory	mandatory	mandatory	mandatory	<ol> <li>Invalid field format</li> <li>Mandatory field is not provided.         Value must be provided if hazardous is false</li> </ol>
dotInformatio n	If hazardous == true dotInformation is mandatory and wasteDescription shall not be specified	mandatory	mandatory	mandatory	mandatory	mandatory	Mandatory field is not provided.  Must be provided if hazardous is true
quantity		optional	optional	mandatory	mandatory	mandatory	Mandatory field is not provided
hazardousWas te		optional	optional	mandatory	mandatory	mandatory	Mandatory field is not provided
addititionalInf o		optional	optional	optional	optional	optional	
lineNumber	lineNumbers shall be unique for the manifest	mandatory	mandatory	mandatory	mandatory	mandatory	<ol> <li>Invalid field format</li> <li>Not unique line number</li> <li>Mandatory</li> </ol>

								field is not provided.
	management MethodCode	Shall be in lookup	optional	optional	optional	optional	mandatory	<ol> <li>Invalid field format</li> <li>Provided value is not found</li> <li>Mandatory field is not provided.</li> </ol>
	bR		optional	optional	optional	optional	optional	Mandatory field is not provided
	brInfo	boolean	optional	optional	mandatory	mandatory	mandatory	<ol> <li>Invalid field format</li> <li>Mandatory field is not provided</li> </ol>
DotInform ation		If any Waste field is specified DotInformation must be provided. See validation logic in Validation Logic for DOT fields						Mandatory field is not provided
	properShippin gName		mandatory	mandatory	mandatory	mandatory	mandatory	
	idNumber		mandatory	mandatory	mandatory	mandatory	mandatory	
·	hazardClass		mandatory	mandatory	mandatory	mandatory	mandatory	
	packingGroup		mandatory	mandatory	mandatory	mandatory	mandatory	
	emergencyGui deNumber		mandatory	mandatory	mandatory	mandatory	mandatory	
	printedDotInf ormation		mandatory	mandatory	mandatory	mandatory	mandatory	
Quantity		When mandatory all fields must be specified						

	containerNum ber	Integer, 1-999	optional	mandatory	mandatory	mandatory	mandatory	<ol> <li>2.</li> <li>3.</li> </ol>	Invalid field format Provided Value is not found Mandatory field is not provided
	containerType	Letters only Length must be equal 2	optional	mandatory	mandatory	mandatory	mandatory	2.	Invalid field format Provided Value is not found Mandatory field is not provided
	quantity	Value must be a number and contain no more than 11 whole digit(s) and 6 decimal digit(s)	optional	mandatory	mandatory	mandatory	mandatory	1. 2.	Invalid field format Mandatory field is not provided
	unitOfMeasur ement	Letters only Length is 1	optional	mandatory	mandatory	mandatory	mandatory	<ol> <li>2.</li> <li>3.</li> </ol>	Invalid field format Provided Value is not found Mandatory field is not provided
Hazardow sWaste			optional	mandatory	mandatory	mandatory	mandatory		
	federalWasteC odes	If Waste.hazardows == false then federalWasteCodes are ignored	optional	mandatory	mandatory	mandatory	mandatory		

	generatorStat eWasteCodes	Shall be valid Generator State waste codes	optional	mandatory	mandatory	mandatory	mandatory	
	tsdfStateWast eCodes	Shall be valid TSDF State waste codes	optional	mandatory	mandatory	mandatory	mandatory	
Additional Info			optional	optional	optional	optional	optional	
	comments		optional	optional	optional	optional	optional	See Comments for details
	handlingInstru ctions	Max length 4000	optional	optional	optional	optional	optional	
Comment s		If at least one Comments field is specified all other also shall be specified	optional	optional	optional	optional	optional	
	handlerId	Two Letter Activity Location Code + Single alphanumeric Character + Up to 9 alphanumeric characters	mandatory	mandatory	mandatory	mandatory	mandatory	<ol> <li>Mandatory field is not provided</li> <li>Invalid field format. Two Letter Activity Location Code + Single alphanumeric Character + Up to 9 alphanumeric characters</li> </ol>
	label	Max length 255	mandatory	mandatory	mandatory	mandatory	mandatory	Mandatory     field is not     provided     Invalid

	description	Max length 4000	mandatory	mandatory	mandatory	mandatory	mandatory	
BR		If Waste.brInfo == true then starting from Scheduled all BR fields are mandatory	optional	optional	optional	optional	optional	Mandatory field is not provided. BR data must be provided if brInfo is true
	sourceCode	Provided value shall be in lookup						
	formCode	Provided value shall be in lookup						
	density	Required if quantity UOM is Liters or Cubic meters						
	densityUnits ofMeasureme nt	Required if quantity UOM is Liters or Cubic meters						

## Validation Logic for Generator and Transporter Site Id and Site Information

Following entities are considered as Site Information:

- Site Name
- Mailing Address
- Site Address

On UI we allow to enter non registered Generator Information. We do not require Generator site id to be entered in this case. It is optional. If entered it shall at least be validated for max size. Currently it is not being validated for max size. We also need to define what shall be site id max size for non registered Generators (current length of the db field is 255 seems excessive). For non registered Generators we require following mandatory fields:

- Site Name
- Site Address:
  - o Address 1
  - o City
  - o State
  - o Country
  - o Zip
- Mailing address
  - o Address 1
  - o City
  - o State
  - 0 Country
  - o Zip

We allow to enter non registered Transporter(s) information. We require Transporter site id to be entered in this case. Site id is being validated against standard RCRAinfo format. For non registered Transporters we require following mandatory fields:

- Site Name
- Site Address:
  - o Address 1
  - o City
  - o State
  - o Country
  - o Zip

The same logic described below shall be applied for the save manifest service

## **Validation Logic for Generator Site Id and Site Information**

```
{
            "message": "Value is not provided"
            "field": "Emanifest.generator.siteAddress"
    }
    {
            "message": "Value is not provided"
            "field": "Emanifest.generator.mailingAddress"
2. If Site id is provided AND Site Information is not provided.
    2.1. Validate site id
    2.2. If site id is not valid generate error:
            "message": "Provided Value is not Valid",
            "field": "Emanifest.generator.epaSideId",
            "value": "epa side Id value"
    }
    2.3. If site id is valid search in rcra by site id.
    2.4. If site is found
        2.4.1. Obtain Site Information from rcra and store it into the Manifest.
        2.4.2. set modified= false, registered = true
    2.5. If site is not found generate an Error
    {
            "message": "Provided Value is not Found",
            "field": "Emanifest.generator.epaSideId",
            "value": "epa side id value"
3. If Site id is provided AND Site Information is provided.
    3.1. Validate provided Site Information.
        3.1.1. Validate site name
        3.1.2.
                If site name is not valid generate error
                    "message": "Provided Value is not Valid",
                    "field": "Emanifest.generator.name",
                    "value": "name value"
        3.1.3. Validate mandatory location address fields:
                    address1
                    city
                    state.code
                    country.code
                    zip
        3.1.4. If any of the mandatory location address fields are not provided or invalid generate
                an error:
                {
                    "message": "Value is not Provided/Provided Value is not Valid",
                    "field": "Emanifest.generator.siteAddress.address1/city/state/country/zip",
```

```
"value": "address1/city/state/country/zip value"
        3.1.5. Validate mandatory mailing address fields:
                    address1
                    city
                    state.code
                    country.code
        3.1.6. If any of the mandatory mailing address fields are not provided or invalid generate
                an error:
                    "message": "Value is not Provided/Provided Value is not Valid",
                    "field": "Emanifest.generator.mailingAddress.address1/city/state/country/zip",
                    "value": "address1/city/state/country/zip provided value"
                }
    3.2. If provided Site Information is valid
        3.2.1. Validate provided site id
        3.2.2. If site id is not valid generate warning:
                {
                    "message": "Provided value is not valid",
                    "field": "Emanifest.generator.epaSiteId",
                    "value": "epa site id value"
                }
        3.2.3. If site id is valid check if site is registered
        3.2.4. If site is not registered generate warning:
                    "message": "Site with provided epa site id is not registered",
                    "field": "Emanifest.generator.epaSiteId",
                    "value": " site id value"
                }
            3.2.4.1. Store provided Site Information (if no other manifest errors were found)
            3.2.4.2. Set modified = true, registered = true
4. If Site id is not provided AND Site Information is provided.
    4.1. Validate provided Site Information.
        4.1.1. Validate site name
        4.1.2. If site name is not valid generate error
                {
                    "message": "Provided Value is not Valid",
                    "field": "Emanifest.generator.name",
                    "value": "name value"
        4.1.3. Validate mandatory location address fields:
                    address1
```

```
city
                        state.code
                       country.code
           4.1.4. If any of the mandatory location address fields are not provided or invalid generate
                    an error:
                        "message": "Value is not Provided/Provided Value is not Valid",
                        "field": "Emanifest.generator.siteAddress.address1/city/state/country/zip",
                        "value": "address1/city/state/country/zip value"
           4.1.5. Validate mandatory mailing address fields:
                        address1
                        city
                        state.code
                        country.code
           4.1.6. If any of the mandatory mailing address fields are not provided or invalid generate
                    an error:
                        "message": "Value is not Provided/Provided Value is not Valid",
                        "field": "Emanifest.generator.mailingAddress.address1/city/state/country/zip",
                        "value": "address1/city/state/country/zip provided value"
                    }
        4.2. If provided Site Information is valid
            4.2.1. Generate warning:
                        "message": "Value is not Provided",
                        "field": "Emanifest.generator.epaSiteId"
           4.2.2. Store provided Site Information (if no other manifest errors were found)
           4.2.3. Set modified = true, registered = false
Validation logic for Transporter site is and site information
    1. If Site id is not provided AND Site Information is not provided
        1.1. Generate errors:
                "message": "Value is not provided"
                "field": "Emanifest.transporter.epaSiteId"
```

{

} {

```
"message": "Value is not provided"
            "field": "Emanifest.transporter.siteAddress"
2. If Site id is provided AND Site Information is not provided.
   2.1. Validate site id
   2.2. If site id is not valid generate error:
            "message": "Provided Value is not Valid",
            "field": "Emanifest.transporter.epaSideId"
   2.3. If site id is valid search in rcra by site id.
    2.4. If site is found
        2.4.1. Obtain Site Information from rcra and store it into the Manifest.
        2.4.2. set modified= false, registered = true
   2.5. If site is not found generate an Error
   {
            "message": "Provided Value is not Found",
            "field": "Emanifest.transporter.epaSideId",
3. If Site id is provided AND Site Information is provided.
    3.1. Validate provided Site Information.
        3.1.1. Validate site name
        3.1.2. If site name is not valid generate error
                    "message": "Provided Value is not Valid",
                    "field": "Emanifest.transporter.name",
                    "value": "name value"
        3.1.3. Validate mandatory location address fields:
                    address1
                    city
                    state.code
                    country.code
                    zip
        3.1.4. If any of the mandatory location address fields are not provided or invalid generate
                an error:
                {
                    "message": "Value is not Provided/Provided Value is not Valid",
                    "field": "Emanifest.transporter.siteAddress.address1/city/state/country/zip",
                    "value": "address1/city/state/country/zip value"
                }
   3.2. If provided Site Information is valid
```

3.2.1. Validate provided site id

```
"message": "Provided value is not valid",
                    "field": "Emanifest.generator.epaSiteId"
                    "value": "epa site id value"
        3.2.3. If site id is valid check if site is registered
        3.2.4. If site is not registered generate warning:
                    "message": "Site with provided epa site id is not registered",
                    "field": "Emanifest.generator.epaSiteId",
                    "value": " site id value"
                }
            3.2.4.1. Store provided Site Information (if no other manifest errors were found)
            3.2.4.2. Set modified = true, registered = true
4. If Site id is not provided AND Site Information is provided.
    4.1. Generate error:
            "message": "Value is not Provided",
            "field": "Emanifest.transporter.epaSiteId",
    4.2. Validate provided Site Information.
        4.2.1. Validate site name
        4.2.2.
                If site name is not valid generate error
                    "message": "Provided Value is not Valid",
                    "field": "Emanifest.transporter.name",
                    "value": "site name value"
        4.2.3. Validate mandatory location address fields:
                    address1
                    city
                    state.code
                    country.code
        4.2.4. If any of the mandatory location address fields are not provided or invalid generate
                an error:
                    "message": "Value is not Provided/Provided Value is not Valid",
                    "field": "Emanifest.transporter.siteAddress.address1/city/state/country/zip",
                    "value": "address1/city/state/country/zip value"
                }
```

3.2.2. If site id is not valid generate error:

## **Validation Logic for DOT fields**

}

We will require to provide all DOT fields.

```
1. Validate PSN and Id Number DOT fields for the format:
    1.1. If the size of provided Proper Shipping Name exceeds 300 characters the system
        generate following error:
                "message": "Invalid Field Format",
                "field": "Emanifest.wastes.dotInformation.properShippingName",
                "value": "value of PSN"
    1.2. If provided Id Number is not compliant with the following format:
          Length 6 characters
         First 2 characters either "UN" or "NA"+ 4 numeric characters
         the system generate following error:
                "message": "Invalid Field Format",
                "field": "Emanifest.wastes.dotInformation.idNumber",
                "value": "value of ID Number"
    1.3. We also can validate max length for HC, PG, EGN.
2. Validate all DOT fields against respective lookups:
       PSN
       ID Number
       PG
       HC
       EGN
2.1. Generate following errors for every field not found in the lookup:
        "message": "Provided Value is Not Found",
        "field": "Emanifest.wastes.dotInformation.properShippingName",
        "value": "value of PSN"
   }
        "message": "Provided Value is Not Found",
        "field": "Emanifest.wastes.dotInformation.ldNumber",
        "value": "value of ID Number"
   }
        "message": "Provided Value is Not Found",
        "field": "Emanifest.wastes.dotInformation.packingGroup",
        "value": "value of PG"
   }
        "message": "Provided Value is Not Found",
        "field": "Emanifest.wastes.dotInformation.hazardClass",
        "value": "value of HC"
```

```
{
       "message": "Provided Value is Not Found",
       "field": "Emanifest.wastes.dotInformation.emergencyGuideNumber",
        "value": "value of EGN"
3. If PSN and ID Number were found in lookups validate if provided combination of them is in
   the link table
   3.1. If provided combination of PSN and ID Number is not found in the link table generate
       following errors:
               "message": "Provided Proper Shipping Name does not correspond to Provided
       ID Number",
               "field": "Emanifest.wastes.dotInformation.properShippingName",
                "value": "value of PSN"
       }
       {
               "message": "Provided ID Number does not correspond to Provided Proper
       Shipping Name ",
                "field": "Emanifest.wastes.dotInformation.idNumber",
                "value": "value of ID number"
4. If provided combination of PSN and ID Number is found in the link table and PG is found in
    lookup validate if provided PG is in the link table for the combination of PSN and ID Number.
   4.1. If provided PG is not found generate following error:
       "message": "Provided Packing Group does not correspond to Provided Proper Shipping
    Name and Id Number ",
        "field": "Emanifest.wastes.dotInformation.packingGroup",
        "value": "value of PG"
5. If provided combination of PSN and ID Number is found in the link table and HC is found in
   lookup validate if provided HC is in the link table for the combination of PSN and ID Number.
   5.1. If provided HC is not found generate following error:
        "message": "Provided Hazard Class does not correspond to Provided Proper Shipping
    Name and Id Number ",
       "field": "Emanifest.wastes.dotInformation.hazardClass",
        "value": "value of HC"
   }
6. If provided combination of PSN and ID Number is found in the link table and is found in
   lookup validate if provided EGN is in the link table for ID Number.
   6.1. If provided EGN is not found generate following error:
```

```
"message": "Provided Emergency Guide Number does not correspond to Provided Id
            Number ".
                "field": "Emanifest.wastes.dotInformation.emergencyGuideNumber",
                "value": "value of EGN"
           }
       7. Validate printedDotInformation.
            7.1. If printedDotInformation is exceeding 500 char generate error message:
                "message": "Invalid Field Format",
               "field": "Emanifest.wastes.dotInformation.printedDotInformation",
                "value": "value of printedDotInformation"
           }
Validation Logic for the Waste Codes
Waste level validations
    1. If hazardows == true AND status == Pending AND federal waste code(s) are provided
        1.1. Check if provided federal code(s) has valid format:
               Length is == 3
               First char is letter
               Last 2 char numeric
       1.2. If federal waste code is invalid generate warning:
               "message": "Invalid Field Format",
               "field": "Emanifest.wastes.hazardowsWaste.federalWasteCode",
               "value": "value of federal waste code"
        1.3. If provided federal waste code has valid format check if federal waste code is in waste code
            lookup for HQ
        1.4. If federal waste code is not in lookup generate warning:
       {
                "message": "Provided Value is not Found",
                "field": "Emanifest.wastes.hazardowsWaste.federalWasteCode",
                "value": "value of federal waste code"
       }
       1.5. If warnings were generated the federal waste code(s) is/are not saved as part of the manifest
    2. If hazardows == true AND status == Pending AND TSDF/Generator state waste code(s) are
       provided
        2.1. Check if provided state code(s) has valid format:
               Length is <= 6
       2.2. If TSDF/Generator state waste code is invalid generate warning:
```

"message": "Invalid Field Format",

```
"field": "Emanifest.wastes.hazardowsWaste.tsdfStateWasteCode/
   Emanifest.wastes.hazardowsWaste.generatorStateWasteCode ",
           "value": "value of TSDF/Generator state waste code"
   2.3. If provided TSDF/Generator state waste code has valid format check if provided
       TSDF/Generator state waste code is in waste lookup
       2.3.1. Obtain the TSDF/Generator site address state code from the manifest (if provided)
               and check if there are TSDF state waste codes in waste codes lookup
       2.3.2. If TSDF State does not have state waste codes generate warning:
                   "message": "Invalid waste code. There is no state waste codes for {TSDF state
               code value/Generator state code value}",
                   "field": "Emanifest.wastes.hazardowsWaste.tsdfStateWasteCode/
               Emanifest.wastes.hazardowsWaste.generatorStateWasteCode ",
                   "value": "value of TSDF/Generator state waste code"
       2.3.3. If TSDF/Generator State have state waste codes check is provided state waste code is
               in waste lookup for the TSDF/Generator state code
       2.3.4.
               If provided state waste code is not in the waste codes lookup generate warning:
                   "message": "Provided Value is not Found",
                   "field": "Emanifest.wastes.hazardowsWaste.tsdfStateWasteCode/
               Emanifest.wastes.hazardowsWaste.generatorStateWasteCode ",
                   "value": " value of TSDF/Generator state waste code "
   2.4. If warnings were generated the TSDF/Generator state waste code(s) is/are not saved as part
       of the manifest
3. If hazardows == true AND status == Scheduled or InTransit or Received or ReadyForSignature
   then at least one federal waste code or state waste code must be provided.
   3.1. If no federal and state waste codes are provided generate following errors:
           "message": "Mandatory Field is not Provided. At least one Federal or State Waste code
   must be provided",
           "field": "Emanifest.wastes.hazardowsWaste",
   3.2. If federal waste code(s) is/are provided check if provided federal code(s) has valid format:
           Length is == 3
           First char is letter
           Last 2 char numeric
   3.3. If federal waste code is invalid generate error:
           "message": "Invalid Field Format",
           "field": "Emanifest.wastes.hazardowsWaste.federalWasteCode",
           "value": "value of federal waste code"
   3.4. If provided federal waste code has valid format check if federal waste code is in lookup
```

```
3.5. If federal waste code is not in lookup generate error:
           "message": "Provided Value is not Found",
           "field": "Emanifest.wastes.hazardowsWaste.federalWasteCode",
           "value": "value of federal waste code"
   3.6. If TSDF/Generator state waste codes are provided check if provided state waste code(s)
       has/have valid format:
           Length is <= 6
   3.7. If TSDF/Generator state waste code is invalid generate error:
           "message": "Invalid Field Format",
           "field": "Emanifest.wastes.hazardowsWaste.tsdfStateWasteCode/
   Emanifest.wastes.hazardowsWaste.generatorStateWasteCode ",
           "value": "value of TSDF/Generator state waste code"
   }
   3.8. If provided TSDF/Generator state waste code has valid format check if provided
       TSDF/Generator state waste code is in waste lookup
       3.8.1. Obtain the TSDF/Generator site address state code from the manifest (if provided)
               and check if there are TSDF state waste codes in waste codes lookup
       3.8.2. If TSDF State does not have state waste codes generate error:
                   "message": "Invalid waste code. There is no state waste codes for {TSDF state
               code value/Generator state code value}",
                   "field": "Emanifest.wastes.hazardowsWaste.tsdfStateWasteCode/
               Emanifest.wastes.hazardowsWaste.generatorStateWasteCode ",
                   "value": "value of TSDF/Generator state waste code"
       3.8.3. If TSDF/Generator State have state waste codes check is provided state waste code is
               in waste lookup for the TSDF/Generator state code
               If provided state waste code is not in the waste codes lookup generate error:
       3.8.4.
               {
                   "message": "Provided Value is not Found",
                   "field": "Emanifest.wastes.hazardowsWaste.tsdfStateWasteCode/
               Emanifest.wastes.hazardowsWaste.generatorStateWasteCode ",
                   "value": " value of TSDF/Generator state waste code "
               }
4. If hazardows == false AND federal waste code(s) is/are provided
   4.1. Generate warning:
       {
           "message": "Federal waste codes shall not be provided for non-hazardous waste ",
           "field": "Emanifest.wastes.hazardowsWaste.federalWasteCode",
```

```
"value": "value of federal waste code"
}
```

4.2. If warnings were generated the federal waste code(s) is/are not saved as part of the manifest

## **Manifest level validation**

```
If status== Scheduled or InTransit or Received or ReadyForSignature AND number of Manifest Federal waste codes == 0 AND number of TSDF/Generator state waste codes == 0 generate error:

{
```

"message": "No Federal and State waste codes provided. At least one Federal or State waste codes shall be provided for the Manifest",

```
"field": "Emanifest",
}
```