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## Registration and Authentication Process for the e-Manifest State Services

- The system will provide an ability to perform e-Manifest Services for the State Users which have an API Manager role
- The system will use a combination of the API Id and API Key for User Authentication and Authorization
- User with an API Manger Role will be able to obtain API Id and API Key via the RCRAInfo Application UI
- An API Id/API Key pair will be generated by the RCRAInfo Application by the User request
- Unique API Id/API Key pair will be associated with the RCRAInfo User Id.
- An API Id/API Key pair does not expire.
- API Id/API Key pair approach does not require external calls for an Authentication process.
- 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.

### User Registration process

1. Users will register in RCRAInfo.
2. Users will request an API Manager Role
3. After an approval the User will be able to request an API Id/API Key pair.
4. An API Id/API Key pair is per user.
5. The User will be able to copy the API Id/API Key pair form the UI 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>/rcrainfo/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>/rcrainfo/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
- waste-minimization-codes

Emanifest Data Services are located under following URL:

- <server url>/rcrainfo/rest/api/v1/emanifest

Following Get Emanifest Data Services are implemented:

- manifest
- manifest-tracking-numbers
- site-ids

Emanifest Lookup Services are located under following URL:

- <server url>/rcrainfo/rest/api/v1/emanifest/lookup

Following Emanifest Lookup Services are implemented:

- 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
- load-types

## Swagger

The services can be invoked via the Swagger UI tool located under following URL:

<server url>/rcra-handler/secured/swagger

## 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>/rcrainfo/rest/api/v1/auth/6f7a9848-35a5-4874-928f-12fc3def1a33/PYdg4vhKTouCcQFSZCGM

##### *Sequence of steps*

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. If the System detects 3 unsuccessful attempts for authentication then following error will be generated:
  - E\_SecurityApiIdLocked: API Id is locked.

If API id was locked the User shall request API Id/API key re-generation
4. 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. Security Token expiration time is 20 minutes

5. If successful the system will return JSON containing following information:
  - token
  - expiration date
6. 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

### Response JSON Schema

“auth.json”

### Completed Response Example

[illegible]

```
IXClgOiBclJlwMTctMDYtMTIUMjl6Mzg6NTEuMDAwKzAwMDBclixcbiAgICBclnVwZGF0ZWREYXRlX
ClgOiBudWxsXG4gIH0sXG4gIFwicGVybWlzc2lvbnNcliA6IFsgXSxcbiAgXCJzaXRIUGVybWlzc2lvbnN
cliA6IFsggeyB9LCB7IH0gXVxufSlsImV4cCI6MTQ5ODI1OTc0NX0.xw_PGyN6for1GHwf6zqp0OJS10h
wK8jEgRyRIOJpFUducwDKj5paWRTEsCky_06pryEve3Yw2w1bbBzqGdSnnw ",
"expirationDate": "2017-06-23T23:15:45.095+0000"
}
```

### Errors and Error Response Examples

code	Message
E_SecurityApilInvalidCredentials	Invalid API Id/Key Specified
E_SecurityApilInvalidStatus	API Id Status Invalid
E_SecurityApilLocked	API Id is Locked
E_SystemError	Message describing system error

#### Error Response Example

```
{
  "code": " E_SecurityApilInvalidCredentials",
  "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>/rcrainfo/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 process the request
  - 2.1. The system will check if Site with provided Site Id is valid and registered inRCRAInfo.
    - 2.1.1. If provided Site Id is invalid the processing will be stopped and system will generate following error:
      - E\_InvalidSiteId: Provided Site Id is not ValidSite Id shall be compliant with the following format:
      - Two Letter Activity Location Code + Single alphanumeric Character + Up to 9 alphanumeric characters
    - 2.1.2. 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
  - 2.2. The system will obtain Site Information for the provided Site Id
  - 2.3. The System generates JSON containing obtained Site Information
3. The System returns the response
  - 3.1. If site was found the system returns generated JSON containing following information:
    - site type: "Generator"/"Tsd"/"Transporter"
    - site information: containing site name, location address, mailing address, contact first name, middle initial, last name, phone number, phone extension, email
  - 3.2. If any errors were encountered during processing the system returns JSON containing:
    - error: containing code, message, error Id, date

### Response JSON Schema

"site.json"

### Completed Response Example

```
{  
  "siteType": "Tsdf",  
  "epaSiteId": "CA999999996",  
  "name": "CA GENERATOR NAME",  
  "mailingAddress": {
```

```

    "address1": "123 D ROAD",
    "city": "EDWARDS",
    "state": {
      "code": "CA"
    },
    "country": {
      "code": "US"
    },
    "zip": "93524"
  },
  "siteAddress": {
    "address1": "456 N BLVD",
    "city": "EDWARDS",
    "state": {
      "code": "CA"
    },
    "country": {
      "code": "US"
    },
    "zip": "93524"
  },
  "contact": {
    "firstName": "John",
    "middleInitial": "C",
    "lastName": "Smith",
    "phone": {
      "number": "703-208-5674",
      "extension": "3"
    },
    "email": "JSmith@abc.com"
  }
}

```

## Errors

Type	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
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"
  "errorId": "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"
  "errorId" : "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>/rcrainfo/rest/api/v1/lookup/density-uom

#### *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 process the request
  - 2.1. The system will obtain Density UOM Codes and Descriptions
  - 2.2. The System will generate JSON containing obtained Density UOM Codes and Descriptions
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - request status: "Completed"
    - list of Density UOM Codes and Descriptions
  - 3.2. 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

```
[
  {
    "code": "1",
    "description": "lbs/gal"
  },
  {
    "code": "2",
    "description": "sg"
  }
]
```

### Errors

Type	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
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>/rcrainfo/rest/api/v1/lookup/form-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 process the request
  - 2.1. The system will obtain Form Codes and Form Code Descriptions
  - 2.2. The System will generate JSON containing obtained Form Codes and Form Code Descriptions
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - list of Form Codes and Form Code Descriptions
  - 3.2. 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 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

Type	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
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"  
}
```

### 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>/rcrainfo/rest/api/v1/lookup/source-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 process the request
  - 2.1. The system will obtain Source Codes and Source Code Descriptions
  - 2.2. The System will generate JSON containing obtained Source Codes and Source Code Descriptions
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - list of Source Codes and Source Code Descriptions
  - 3.2. 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 Source Codes and Source Code Descriptions)

```
[
  {
    "code": "G01",
    "description": "DIP, FLUSH OR SPRAY RINSING"
  },
  {
    "code": "G02",
    "description": "STRIPPING AND ACID OR CAUSTIC CLEANING"
  },
  {
    "code": "G03",
    "description": "PLATING AND PHOSPHATING"
  },
  {
    "code": "G04",
    "description": "ETCHING"
  }
]
```

### Errors

Type	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
System	E_SystemError	Message describing system error

### Error Response Example

```
{
```

```
"code": "E_SystemError",  
"message": "The e-Manifest database server is unavailable",  
"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>/rcrainfo/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 process the request
  - 2.1. The system will obtain Source Codes and Source Code Descriptions
  - 2.2. The System will generate JSON containing obtained Federal Waste Codes and Federal Waste Code Descriptions
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - list of Federal Waste Codes and Federal Waste Code Descriptions
  - 3.2. 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)

```
[
  {
    "code": "D001",
    "description": "IGNITABLE WASTE"
  },
  {
    "code": "D002",
    "description": "CORROSIVE WASTE"
  },
  {
    "code": "D003",
    "description": "REACTIVE WASTE"
  },
  {
    "code": "D004",
    "description": "ARCENIC"
  }
]
```

### Errors

Type	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
System	E_SystemError	Message describing system error

### Error Response Example

```
{
  "code": "E_SecurityApiTokenInvalid",
  "message": " Invalid Security Token ",
  "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>/rcrainfo/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 process the request
  - 2.1. 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
  - 2.2. If no state codes are defined for the provided State Code the system will stop the processing and generate following error:
    - E\_StateCodesUnfind: State Codes are Not Defined for the State
  - 2.3. The system will obtain Source Codes and Source Code Descriptions
  - 2.4. The System will generate JSON containing State Waste Codes and State Waste Code Descriptions
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - list of State Waste Codes and State Waste Code Descriptions
  - 3.2. 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 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

Type	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
Validation	E_StateCodesUndefind	State Codes are Not Defined for the State
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",
  "errorId": "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>/rcrainfo/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 process the request
  - 2.1. The system will obtain Management Method Codes and Management Method Code Descriptions
  - 2.2. The System will generate JSON containing obtained Management Method Codes and Management Method Code Descriptions
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - list of Management Method Codes and Management Method Code Descriptions
  - 3.2. 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

Type	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
System	E_SystemError	Message describing system error

### Error Response Example

```

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

```

## waste-minimization-codes

### Description

Returns the list of Waste Minimization Codes and Waste Minimization 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>/rcrainfo/rest/api/v1/lookup/waste-minimization-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 process the request
  - 2.1. The system will obtain Waste Minimization Codes and Waste Minimization Code Descriptions
  - 2.2. The System will generate JSON containing obtained Waste Minimization Codes and Waste Minimization Code Descriptions
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - list of Waste Minimization Codes and Waste Minimization Code Descriptions
  - 3.2. 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*

```
[
  {
    "code": "X",
    "description": "No waste minimization efforts were implemented"
  },
  {
    "code": "N",
    "description": "Efforts economically or technically impracticable"
  },
  {
    "code": "S",
    "description": "Began to ship waste off-site for recycling"
  },
  {
    "code": "R",
    "description": "Recycling on-site was implemented"
  },
  {
    "code": "Y",
    "description": "Waste minimization efforts were successful"
  },
  {
    "code": "A",
    "description": "Cont. initiative to reduce qty and/or toxicity"
  },
  {

```

```

        "code": "B",
        "description": "Cont. initiative to recycle waste on- or off-site"
    },
    {
        "code": "C",
        "description": "Impl. new initiative to reduce qty and/or toxicity"
    },
    {
        "code": "D",
        "description": "Impl. new initiative to recycle on- or off-site"
    }
]

```

### Errors

Type	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
System	E_SystemError	Message describing system error

### Error Response Example

```

{
    "code": " E_SecurityApiInvalidStatus ",
    "message": " This API Id is no longer active ",
    "errorId" : "9v7a9808-s35a5-4874-928f-12fc3def4b56",
    "date" : "2017-06-23T23:15:45.095+0000"
}

```

## Emanifest Data Services

### search

#### Description

Returns the list of Manifest Tracking Numbers for all Manifests stored in the system which matches the provided search criteria.

#### Service Type

Emanifest Data Service.

#### Parameters

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

Following service parameters will be passed as JSON compliant to the JSON schema defined in “search-manifest.json”

- **stateCode:** Valid State Code. This is one of two Mandatory Parameters. Either stateCode or siteld shall be provided.
- **siteld:** TSDF, Generator or Transporter Site Id. This is one of two Mandatory Parameters. Either stateCode or siteld shall be provided.
- **siteType:** The type of the site (Generator, Transporter(s), TSDF) which will be used for the search. If the site location address state code is equal to the provided stateCode then this search criteria is a match. One of the following values may be provided:
  - "Generator"
  - "Transporter"
  - "Tsdf"

If a parameter is not provided then the search will be performed for all Generators and Transporters and TSDFs. This is an Optional Parameter.

- **status:** Manifest Status. Following values can be provided:
  - "Scheduled"
  - "InTransit"
  - "Received"
  - "ReadyForSignature"
  - "Signed"

If the parameter is provided the manifests which are in provided status will match the search criteria. If this parameter is not provided manifests which are in any of the above status will match the search criteria. This is an optional parameter

- **dateType:** type of the Date which will be used for the date range search. Following values can be provided:
  - "ShippedDate"
  - "ReceivedDate"
  - "CertifiedDate"
  - "UpdateDate"

The service will perform a date range search when the date type, startDate and endDate parameters are provided. This is an optional parameter.

- **startDate:** Starting date/time of the date range search. YYYY-MM-DDThh:mm:ss.sTZD date/time format shall be provided. This is an optional parameter.
- **endDate:** Ending date/time of the date range search. YYYY-MM-DDThh:mm:ss.sTZD date/time format shall be provided. This is an optional parameter.

### *Service Parameters JSON examples*

1. The service will use the following example to search for all manifests where the Generator site address state code is equal to "MD" and have "Scheduled" status:

```
{
  "stateCode": "MD",
  "status": "Scheduled",
  "siteType": "Generator",
}
```

2. The service will use the following example to search for all manifests where either the Generator or Transporter(s) or TSDF site address state code is equal to “TX” and have been shipped in the Date range between March 6, 2018 9:57:33pm and March 15, 2018 9:14:44pm:

```
{  
  "stateCode": "TX",  
  "dateType": "CertifiedDate",  
  "startDate": "2018-03-06T21:57:33",  
  "endDate": "2018-03-15T21:14:44"  
}
```

3. The service will use the following example to search for all manifests where siteld is provided and the manifest status is “Signed”

```
{  
  "siteld": "MD000345",  
  "status": "Signed"  
}
```

### *Service Invocation Example*

```
<server url>/rcrainfo/rest/api/v1/emanifest/search {header} -d '{ "stateCode": "MD", "status": "Scheduled" }
```

### *Sequence of steps*

1. The System will validate the Security Token
  - 1.1. If the Web Security Token is invalid the system stops the submission and will generate the following error:
    - E\_SecurityApiTokenInvalid: Invalid Security Token
  - 1.2. If the Web Security Token has expired the system stops the submission and will generate the following error:
    - E\_SecurityApiTokenExpired: Security Token is Expired
  - 1.3. If the Account was Inactivated after the token was issued the system stops the submission and will generate the following error:
    - E\_SecurityApiInvalidStatus: This API Id is no longer active
2. The system will process the request
  - 2.1. If stateCode is not provided and siteld is not provided the service will stop processing and generates following error:
    - E\_SearchParameterRequiredStateCodeorSiteld: Missing required search parameter State Code or Site Id
  - 2.2. If an invalid stateCode is provided the service will stop processing and generates the following error:
    - E\_InvalidStateCode: Invalid State Code is Provided
  - 2.3. If provided Site Id is invalid the system will stop processing and generate following error:
    - E\_InvalidSiteld: Provided Site Id has invalid format

- 2.4. If Site with provided Site Id is not registered in RCRAInfo the system will stop processing and generate following error:
  - E\_SitelsNotFound: Site with Provided Site Id is not Found
- 2.5. If the provided status is invalid the system will stop processing and generates a schema error.
- 2.6. If the provided dateType is invalid the system will stop processing and generates a schema error.
- 2.7. If the provided startDate is invalid the system will stop processing and generates a schema error.
- 2.8. If the provided endDate is invalid the system will stop processing and generates a schema error.
- 2.9. The service will obtain Manifest Tracking Numbers of the Manifest(s) which matches the search criteria which was passed.
- 2.10. The System generates JSON containing the Manifest Tracking Numbers obtained from the search.
3. System returns the response
  - 3.1. If the System found manifests for the provided State code it returns JSON containing:
    - values : list of obtained Manifest Tracking Numbers
  - 3.2. If no manifests were found for the provided State code the system returns JSON containing:
    - empty list
  - 3.3. If any system errors were encountered during the processing the system returns JSON containing:
    - error: containing error code, error message, error id, and error date

### *Response JSON Schema*

"values.json"

### *Return Examples*

Completed Response Example

```
[  
  "100001380ELC",  
  "100001442ELC",  
  "100001534ELC"  
]
```

### *Errors*

Type	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
Validation	E_SearchParameterRequiredStateCodeOrSiteId	Missing required search parameter State Code or Site Id



Validation	E_InvalidSiteId	Provided Site Id has invalid format
Validation	E_SiteIsNotFound	Site with Provided Site Id is not Found
Validation	E_InvalidStateCode	Invalid State Code is Provided
System	E_SystemError	Message describing system error

### *Error Return Examples*

#### *Validation Error Return Example*

```
{
  "code": "E_InvalidStateCode ",
  "message": "Provided State Code is Invalid",
  "errorId" : "9v7a9808-s35a5-4874-928f-12fc3def4b56",
  "date" : "2017-06-23T23:15:45.095+0000"
}
```

## **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>/rcrainfo/rest/api/v1/emanifest/manifest-tracking-numbers/CAT080025711

### *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 process the request
  - 2.1. 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
  - 2.2. If provided Site Id is invalid the system will stop processing and generate following error:
    - E\_InvalidSiteId: Provided Site Id has invalid format
  - 2.3. The System will check if Site with provided Site Id is registered in RCRAInfo
  - 2.4. If Site with provided Site Id is not registered in RCRAInfo the system will stop processing and generate following error:
    - E\_SitelsNotFound: Site with Provided Site Id is not Found
  - 2.5. 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
  - 2.6. The System generates JSON containing obtained Manifest Tracking Numbers
3. System returns the response
  - 3.1. If the System found manifests for the provided Site Id it returns JSON containing:
    - values : list of obtained Manifest Tracking Numbers
  - 3.2. If no manifests were found for the provided Site Id the system returns JSON containing:
    - empty list
  - 3.3. If any system errors were encountered during processing the system returns JSON containing:
    - error: containing error code, error message, error id, and error date

### **Response JSON Schema**

"values.json"

### **Return Examples**

Completed Response Example

```
[  
    "100001380ELC",  
    "100001442ELC",  
    "100001534ELC"  
]
```

### **Errors**

Type	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
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",
  "errorId": "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 returns Manifest attachments. If Manifest contains an attachment(s) and an attachment option is specified following documents will be returned:

1. Pdf Document containing printed, scanned and manually signed Manifest form (Printed Document). Note that this document is not available for "FullElectronic" submission type
2. HTML Document(s) containing human readable representation of the Manifest data signed electronically - Copy Of Record (Human Readable) Document. Note that the system generates this Documents at the time when the users (Generator, Transporters, TSDF) are electronically signing the manifest. In order to identify what "party" the COR document was generated by following naming convention is used:
  - COR document generated when Generator signed the manifest : <cor-g.html>
  - COR document generated when Generator signed the manifest for rejection (If shipment was returned back to the original Generator): <cor-g-reject.html>

- COR document generated when Transporter(s) signed the manifest: <cor-t-{transporter order}.html>
  - COR document generated when TSDF signed the manifest: <cor-tsdf.html>
3. 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": 500,
  "mimeType": "APPLICATION_PDF"
}
```

- COR (Human Readable) Document signed by TSDF metadata example:

```
"humanReadableDocument": {
  "name": "cor-tsdf.html",
  "size": 500,
  "mimeType": "TEXT_HTML"
}
```

- Form 2050 Document metadata example:

```
"formDocument": {
  "name": "form-8700-22.pdf",
  "size": 7000,
  "mimeType": "APPLICATION_PDF"
}
```

All documents will be 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>/rcrainfo/rest/api/v1/emanifest/manifest/100001380ELC

### *Service Invocation Example with Attachments*

<server url>/rcrainfo/rest/api/v1/emanifest/manifest/100001380ELC/attachments

### *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 process the request
  - 2.1. The system will check if provided Manifest Tracking Number is valid and Manifest with provided Tracking Number is in the system.
    - 2.1.1. 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: Response JSON Schema*

- code-descriptions.json
- - 2.1.2. 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
    - 2.1.3. 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
  - 2.2. The system will obtain the Manifest for the provided Manifest Tracking Number.
  - 2.3. The System generates JSON containing obtained Manifest
3. 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)
      - COR Document(s) (html)
      - Form 2050 pdf (pdf)
  4. If any system errors were encountered during processing the system will return:
    - error: containing error code, error message, error id and error date

### *Response JSON Schema*

emanifest-v-1-2.json

### *Completed Response Example*

```
{
  "createdDate" : "2017-10-28T05:53:13.581+0000",
  "updatedDate" : "2017-10-28T05:57:33.552+0000",
  "manifestTrackingNumber" : "100000630ELC",
  "status" : "Signed",
  "submissionType" : "DataImage5Copy",
  "originType" : "Service",
```

```
"shippedDate" : "2017-10-28T04:00:00.000+0000",
"receivedDate" : "2017-10-28T04:00:00.000+0000",
"certifiedDate" : "2017-10-28T05:57:33.550+0000",
"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": {
        "address1": "123 Main Drive",
        "address2": "",
        "city": "PETERSBURG",
        "state": {
            "code": "VA"
        },
        "country": {
            "code": "US"
        },
        "zip": "23803"
    },
    "contact": {
        "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": {
      "firstName": "a",
      "middleInitial": "a",
      "lastName": "a",
      "phone": {
        "number": "000-000-0000",
        "extension": "0"
      },
      "email": "-@-.-",
      "companyName": "a"
    },
    "emergencyPhone": {
      "number": "000-000-0000",
      "extension": "0"
    },
    "paperSignatureInfo": {
      "printedName": "a",
      "signatureDate": "a"
    }
  },

```

```

        "order": 1.1
    },
    ],
    "designatedFacility": {
        "epaSiteId": "CA5555555555",
        "name": "TSDf SITE NAME",
        "mailingAddress": {
            "address1": "123 Ave Y",
            "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": {
            "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",
            "humanReadableDocument": {
                "name": "cor-tsdf.html",
                "size": 500,

```



```

        "mimeType": "TEXT_HTML"
    },
    "cromerrActivityId": "a",
    "cromerrDocumentId": "a"
}
},
"wastes" : [ {
    "dotHazardous" : true,
    "epaWaste" : true,
    "dotInformation" : {
        "idNumber" : {
            "code" : "UN3164"
        },
        "hazardClass" : {
            "code" : "2.2"
        },
        "properShippingName" : {
            "code" : "Articles, pressurized pneumatic or hydraulic containing non-flammable gas"
        },
        "printedDotInformation" : "UN3164, Waste Articles, pressurized pneumatic or hydraulic
containing non-flammable gas, 2.2",
        "emergencyGuideNumber" : {
            "code" : "126"
        }
    },
    "quantity" : {
        "containerNumber" : 1,
        "containerType" : {
            "code" : "CM",
            "description" : "Metal boxes, cartons, cases (including roll offs)"
        },
        "quantity" : 1.0,
        "unitOfMeasurement" : {
            "code" : "K",
            "description" : "Kilograms"
        }
    },
    "hazardousWaste" : {
        "federalWasteCodes" : [ {
            "code" : "D001",
            "description" : "IGNITABLE WASTE"
        } ],
        "tsdfStateWasteCodes" : [],
        "generatorStateWasteCodes" : []
    },
    "additionalInfo" : {
        "comments" : []
    },
    "lineNumber" : 1,
    "br" : false,
    "pcb" : false,

```

```

"managementMethod" : {
  "code" : "H020",
  "description" : "SOLVENTS RECOVERY"
},
},
"additionalInfo" : {
  "comments" : [ ]
},
"rejection": false,
"import": false,
"printedDocument" : {
  "name" : "02-10-2017.pdf",
  "size" : 716174,
  "mimeType" : "APPLICATION_PDF"
},
"formDocument" : {
  "name" : "form-2050.pdf",
  "size" : 7266727,
  "mimeType" : "APPLICATION_PDF"
}
}

```

### Errors

Type	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
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"
  "errorId" : "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>/rcrainfo/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 process the request
  - 2.1. The system will check if provided Site Type is valid.
  - 2.2. Provided Site Type shall contain one of the following values:
    - "Generator"
    - "TsdF"
    - "Transporter"
  - 2.3. 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
  - 2.4. 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
  - 2.5. Depending on Site Type the system will obtain either Transporter or TSDF or Generator Ids for the provided State Code
  - 2.6. The System generate JSON containing obtained Site Ids
  - 2.7. If no Site Ids were found the system generate empty list
3. The System returns the response

- 3.1. If site ids were found the system returns generated JSON containing following information:
  - values: list of site Ids
- 3.2. If no sites were found the system returns JSON containing following information:
  - Empty list
- 3.3. 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

### Response JSON Schema

"values.json"

### Completed Response Example

```
[
  "CAD009999999",
  "CAD009999995",
  "CAD009999998",
  "CAD009999997"
]
```

### Errors

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

## Manifest Lookup Services

### printed-tracking-number-suffixes

#### Description

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

#### Service Type

Manifest Lookup Service.

### Parameters

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

### Service Invocation Example

<server url>/rcrainfo/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 process the request
  - 2.1. The system will obtain Printed Manifest Tracking Number suffix and the Owner Company for each suffix
  - 2.2. The System will generate JSON containing obtained Printed Manifest Tracking Number Suffixes information
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - list of Printed Manifest Tracking Number Suffixes and Owner Companies
  - 3.4. If any errors were encountered during processing the system returns JSON containing:
    - error: containing error code, error message, error id and error date

### Response JSON Schema

"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

Type	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
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 and Technical Name Indicators

### 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>/rcrainfo/rest/api/v1/emanifest/lookup/proper-shipping-names

### 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 process the request
  - 2.1. The system will obtain Proper Shipping Name codes, Proper Shipping Name Comments and Technical Name Indicators
  - 2.2. The System will generate JSON containing obtained Proper Shipping Name codes, Proper Shipping Name Comments and Technical Name Indicators
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - list of Proper Shipping Name codes, Proper Shipping Name Comments and Technical Name Indicators
  - 3.5. If any errors were encountered during processing the system returns JSON containing:
    - error: containing error code, error message, error id, error date

### *Response JSON Schema*

"proper-shipping-names.json"

### *Completed Response Example*

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

```
[
  {
    "psn": "1,1,1-Trifluoroethane or Refrigerant gas, R 143a",
    "technicalNameIndicator": false
  },
  {
    "psn": "1,1-Difluoroethane or Refrigerant gas R 152a",
    "technicalNameIndicator": false
  },
  {
    "psn": "1,1-Difluoroethylene or Refrigerant gas R 1132a",
    "technicalNameIndicator": false
  },
  {
    "psn": "Carbamate pesticides, liquid, toxic, flammable",
    "psnComments": [
      "flash point not less than 23 degrees C"
    ],
    "technicalNameIndicator": true
  },
  {
    "psn": " Alkyl sulfonic acids, liquid or Aryl sulfonic acids, liquid.",
    "psnComments": [
      "with more than 5 percent free sulfuric acid"
    ],
    "technicalNameIndicator": true
  }
]
```



## Errors

Type	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
System	E_SystemError	Message describing system error

## Error Response Example

```
{  
  
  "code": " E_SecurityApiTokenExpired ",  
  "description": " Security Token is Expired "  
  "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>/rcrainfo/rest/api/v1/emanifest/lookup/id-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 process the request
  - 2.1. The system will obtain Id Numbers
  - 2.2. The System will generate JSON containing obtained Id Numbers
3. The System returns response:

3.1. If Request was completed the system will return JSON containing:

- list of Id Numbers

3.6. If any errors were encountered during processing the system returns JSON containing:

- error: containing error code, error message, error id, error date

### *Response JSON Schema*

"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"  
]
```

### *Errors*

Type	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"
}
```

## 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>/rcrainfo/rest/api/v1/emanifest/lookup/id-numbers-by-shipping-name/Phosphorus  
heptasulfide, free from yellow or white phosphorus

### 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 process the request
  - 2.1. The system will obtain Id Numbers for the provided Proper Shipping Name
  - 2.2. System will check if the size of provided Proper Shipping Name does not exceed 300 characters.
  - 2.3. 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
  - 2.4. The System generate JSON containing obtained Id Numbers
  - 2.5. If no Id Numbers were found the system stops processing and generates following error:
    - E\_ProperShippingNameNotFound: "Proper Shipping Name Not Found"
3. The System returns response:

3.1. If Request was completed the system will return JSON containing:

- list of Id Numbers

3.2. If any errors were encountered during processing the system returns JSON containing:

- error: containing error code, error message, error id, error date

### *Response JSON Schema*

"values.json"

### *Completed Response Example*

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

### *Errors*

Type	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"  
  "errorId": "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>/rcrainfo/rest/api/v1/emanifest/lookup/proper-shipping-names-by-id-number/NA1760

### *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 process the request
  - 2.1. The system will check if provided Id Number has valid format.
  - 2.2. Provided Id Number shall be compliant with the following format:
    - Length 6 characters
    - First 2 characters either "UN" or "NA" + 4 numeric characters
  - 2.3. If provided Id Number has invalid format the system stops processing and generates following error:
    - E\_InvalidIdNumber: Invalid Id Number
  - 2.4. The system will obtain Proper Shipping Names for the provided Id Number
  - 2.5. The System generates JSON containing obtained Id Numbers
  - 2.6. 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
3. The system returns response
  - 3.2. If Request was completed the system will return JSON containing:
    - list of Id Numbers
  - 3.3. If any errors were encountered during processing the system returns JSON containing:
    - error: containing error code, error message, error id, and error date

### *Response JSON Schema*

"values.json"

### *Completed Response Example*

```
[
  "Chemical kit",
  "Compounds, cleaning liquid",
  "Compounds, tree killing, liquid or Compounds, weed killing, liquid",
```

]"Ferrous chloride, solution"

### Errors

Type	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_ProperShippingNameNotFound	Proper Shipping Name not found for provided Id Number
System	E_SystemError	Message describing system error

### Validation Error Response Example

```
{  
  "code": " E_InvalidIdNumber ",  
  "message": "Invalid Id Number"  
  "errorId" : "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>/rcrainfo/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 process the request
  - 2.1. The system will obtain Hazard Classes
  - 2.2. The System will generate JSON containing obtained Hazard Classes
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - list of Hazard Classes
  - 3.2. 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*

Type	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
System	E_SystemError	Message describing system error

### *Error Response Example*

```
{  
  
  "code": " E_SecurityApiTokenExpired ",  
  "message": " Security Token is Expired "  
  "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>/rcrainfo/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 "  
}
```

### *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 process the request
  - 2.1. System will check if the size of provided Proper Shipping Name does not exceed 300 characters.
  - 2.2. 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
  - 2.3. The system will check if provided Id Number has valid format.
  - 2.4. Provide Id Number shall be compliant with the following format:
    - First 2 characters either "UN" or "NA"+ 4 numeric characters
  - 2.5. If provided Id Number has invalid format the system stops processing and generates following error:
    - E\_InvalidIdNumber: Invalid Id Number
  - 2.6. The system will obtain Hazard Classes for the provided Proper Shipping Name and Id Number
  - 2.7. If Proper Shipping Name was not found the system stops processing and generates following error:
    - E\_ProperShippingNameNotFound: Proper Shipping Name Not Found
  - 2.8. If Id Number was not found the system stops processing and generates following error:
    - E\_IdNumberNotFound: Id Number Not Found
  - 2.9. 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
  - 2.10. The System will generate JSON containing obtained Hazard Classes
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - list of Hazard Classes
  - 3.2. 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**

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

### **Errors**

Type	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_CombinationProperShippingNameIdNumberNotFound	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"
  "errorId" : "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>/rcrainfo/rest/api/v1/emanifest/lookup/packing-groups

### *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 process the request
  - 2.1. The system will obtain Packing Groups
  - 2.2. The System will generate JSON containing obtained Packing Groups
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - list of Packing Groups
  - 3.2. 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

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

### Errors

Type	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_SecurityApiTokenExpired",
  "message": " Security Token is Expired "
  "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>/rcrainfo/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

## *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 process the request
  - 2.1. System will check if the size of provided Proper Shipping Name does not exceed 300 characters.
  - 2.2. 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
  - 2.3. The system will check if provided Id Number has valid format.
  - 2.4. Provide Id Number shall be compliant with the following format:
    - First 2 characters either "UN" or "NA"+ 4 numeric characters
  - 2.5. If provided Id Number has invalid format the system stops processing and generates following error:
    - E\_InvalidIdNumber: Invalid Id Number
  - 2.6. The system will obtain Packing Group for the provided Proper Shipping Name and Id Number
  - 2.7. If Proper Shipping Name was not found the system stops processing and generates following error:
    - E\_ProperShippingNameNotFound: Proper Shipping Name Not Found
  - 2.8. If Id Number was not found the system stops processing and generates following error:
    - E\_IdNumberNotFound: Id Number Not Found

2.9. 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

2.10. The System will generate JSON containing obtained Packing Groups

3. The System returns response:

3.1. If Request was completed the system will return JSON containing:

- list of Packing Groups

3.2. 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

```
[  
  "I",  
  "II"  
]
```

### Errors

Type	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_CombinationProperShippingNameIdNumberNotFound:	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"
```

```
"errorId" : "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>/rcrainfo/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 process the request
  - 2.1. The system will obtain Emergency Response Guidebook Numbers
  - 2.2. The System will generate JSON containing obtained Emergency Response Guidebook Numbers
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - list of Emergency Response Guidebook Numbers
  - 3.7. 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",  
  "113",  
  "114",  
  "115",  
  "116",  
  "117",  
  "118",  
  "119",  
  "120",  
  "121",  
  "122",  
  "123"  
]
```

### Errors

Type	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_SecurityApiTokenExpired ",  
  "message": "E_SecurityApiTokenExpired"  
  "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>/rcrainfo/rest/api/v1/emanifest/lookup/emergency-numbers-by-id-number/UN3166

### *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 process the request
  - 2.1. The system will check if provided Id Number has valid format.
  - 2.2. Provide Id Number shall be compliant with the following format:
    - First 2 characters either "UN" or "NA"+ 4 numeric characters
  - 2.3. If provided Id Number has invalid format the system stops processing and generates following error:
    - E\_InvalidIdNumber: Invalid Id Number
  - 2.4. The system will obtain Emergency Response Guidebook Number for the provided Id Number
  - 2.5. If Id Number was not found the system stops processing and generates following error:
    - E\_IdNumberNotFound: Id Number Not Found
  - 2.6. The System will generate JSON containing obtained Emergency Response Guidebook Numbers
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - list of Emergency Response Guidebook Numbers
  - 3.2. 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*

```
[
  "112",
  "113"
]
```



## Errors

Type	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
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_SecurityApiTokenExpired ",
  "message": "E_SecurityApiTokenExpired"
  "errorId" : "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>/rcrainfo/rest/api/v1/emanifest/lookup/container-types

### 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 process the request
  - 2.1. The system will obtain Container Types and Container Type Descriptions

- 2.2. The System will generate JSON containing obtained Container Types and Container Type Descriptions
3. The System returns response:
- 3.1. If Request was completed the system will return JSON containing:
- list of Container Types and Container Type Descriptions
- 3.2. If any errors were encountered during processing the system returns JSON containing:
- error: containing error code, error message, error id and error date

### *Response JSON Schema*

"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"
}
]

```

### Errors

Type	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
System	E_SystemError	Message describing system error

### Error Response Example

```

{
  "code": "E_SecurityApiTokenExpired",
  "message": "E_SecurityApiTokenExpired",
  "errorId": "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>/rcrainfo/rest/api/v1/emanifest/lookup/quantity-uom

### *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 process the request
  - 2.1. The system will obtain Quantity UOM Codes and Descriptions
  - 2.2. The System will generate JSON containing obtained Quantity UOM Codes and Descriptions
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - list of Quantity UOM Codes and Descriptions
  - 3.2. If any errors were encountered during processing the system returns JSON containing:
    - error: containing error code, error message, error id, and error date

### *Response JSON Schema*

"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"
}
]

```

### Errors

Type	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
System	E_SystemError	Message describing system error

### Error Response Example

```

{
  "code": " E_SecurityApiTokenExpired ",
  "message": "E_SecurityApiTokenExpired"
  "errorId": "9v7a9808-s35a5-4874-928f-12fc3def4b56",
  "date": "2017-06-23T23:15:45.095+0000"
}

```

## load-types

### Description

Returns the list of PCB load types

### Service Type

Emanifest Lookup Service.

### Parameters

- Security Token: Security Token received in Authentication

### Service Invocation Example

<server url>/rcrainfo/rest/api/v1/emanifest/lookup/load-types

### 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 process the request
  - 2.1. The system will obtain PCB Load Types (codes and descriptions)
  - 2.2. The System will generate JSON containing PCB Load Types (codes and descriptions)
3. The System returns response:
  - 3.1. If Request was completed the system will return JSON containing:
    - list of PCB Load Types (codes and descriptions)
  - 3.2. If any errors were encountered during processing the system returns JSON containing:
    - error: containing error code, error message, error id, and error date

### *Response JSON Schema*

"code-descriptions.json"

### *Completed Response Example*

```
[
  {
    "code": "ArticleInContainer",
    "description": "Article in Container"
  },
  {
    "code": "ArticleNotInContainer",
    "description": "Article Not in Container"
  },
  {
    "code": "BulkWaste",
    "description": "Bulk Waste"
  },
  {
    "code": "Container",
    "description": "Container"
  }
]
```

### *Errors*

Type	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

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"
}
```

## Services Scenarios Examples

Prerequisite :

1. The User is registered as API Manager for at least one State.
2. The User received API Id and API Key to conduct State Services. See section User Registration process for details

### Obtaining Manifests via search service

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 **search** service to obtain the list of Manifest Tracking Numbers for Manifests stored in the system. See details in section search
4. If there are Manifests for the provided search parameters the **search** service returns the list of Manifest Tracking Numbers .
5. Requester performs **manifest** service to obtain Manifest. See details in section (GET) manifest

### Obtaining Manifest via manifest-tracking- numbers service

6. Requester performs **auth** service to obtain Security Token. See details in section auth.
7. 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.
8. Requester performs **manifest-tracking-numbers** service to obtain the list of Manifest Tracking Numbers for Manifests stored in the system. See details in section manifest-tracking-numbers
9. If there are Manifests for the provided Site Id the **manifest-tracking-numbers** service returns the list of Manifest Tracking Numbers.
10. Requester performs **manifest** service to obtain Manifest. See details in section (GET) manifest

### Obtaining Site Ids via site-ids service

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. See details in section site-ids

4. **site-ids** service returns list of the either of all Transporter IDs or all TSDf IDs or all Generator IDs.

#### Obtaining Site Details via **site-details** service

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. See details in section site-details
4. **site-details** service returns Site Details.