

e-Manifest



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e-Manifest 101

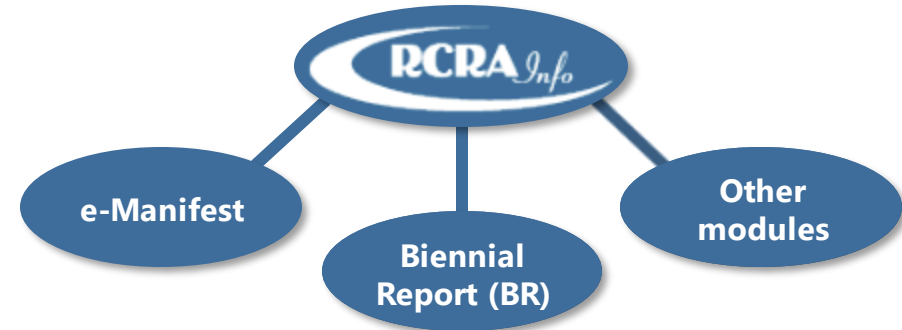


e-Manifest 101

■ e-Manifest is...

1. A modernized, electronic, national system for tracking hazardous waste shipments
2. A one-stop hub for the reporting and recordkeeping of the uniform hazardous waste manifest data (and more)
3. A module in EPA's RCRAInfo web application (<https://rcrainfo.epa.gov>)

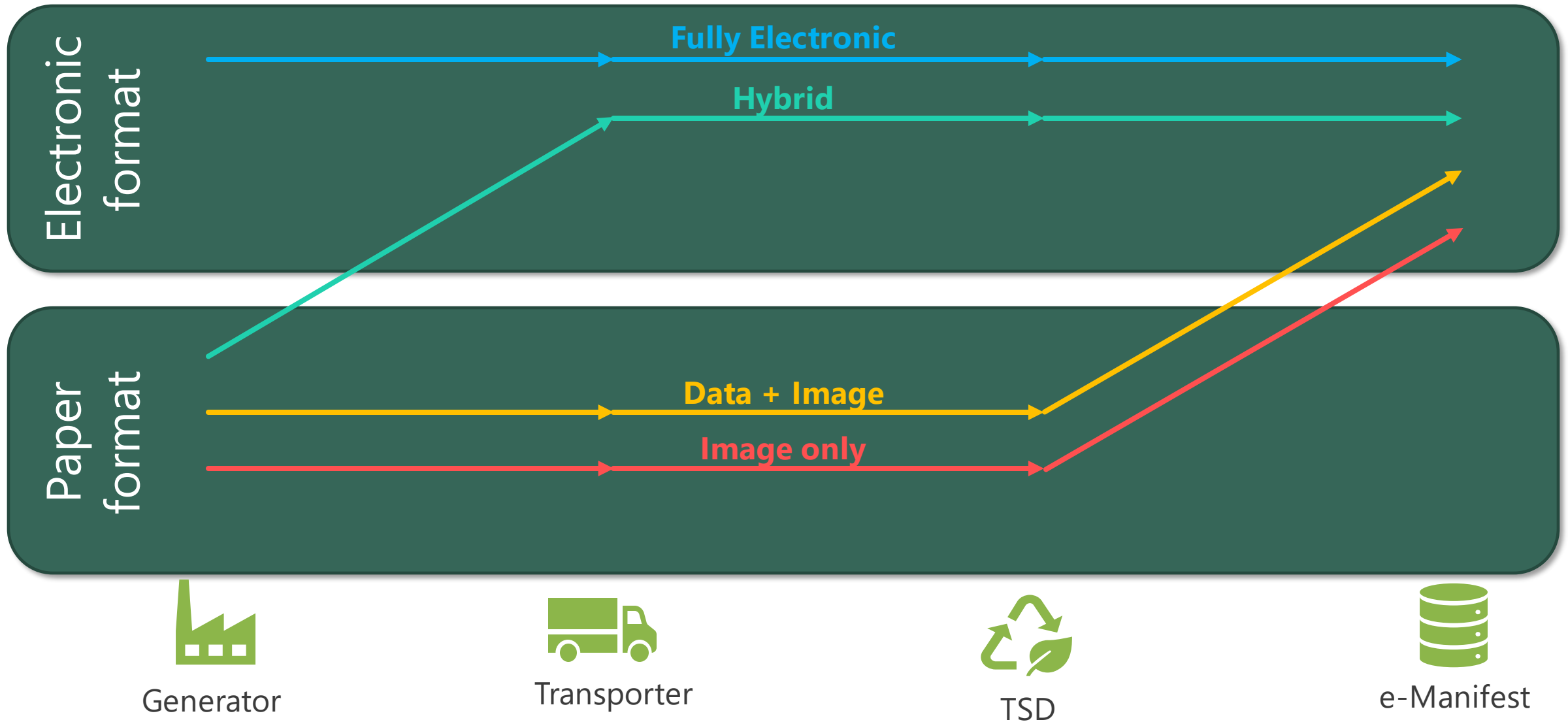
- All manifests **(including paper!)** that accompany HW shipments that are required by federal or state regulations to be manifested must be submitted to the e-Manifest system



Benefits for Industry

- Regulatory recordkeeping requirements
 - e-Manifest captures all manifests, not just electronic manifests
- Easy electronic corrections process
- Electronic manifests can be signed from your smartphone/tablet OR by remote users (see Remote Signer section)
- e-Manifest also has a *Hybrid* option for instances where the generator is not registered in RCRAInfo
- Stable API for integration with pre-existing industry systems
 - Potential Biennial Reporting (BR) integration in the future
- **And more!**

e-Manifest 101 - Signature location



e-Manifest Jumpstart

Getting set up for regulatory recordkeeping and electronic manifesting



Step 1: Register

- For the remainder of the slides, we will assume you have you have an EPA ID
 - If not please complete form 8700-12, which can be found at the below link
 - <https://www.epa.gov/hwgenerators/instructions-and-form-hazardous-waste-generators-transporters-and-treatment-storage-and>
 - You may be able to apply for an ID electronically in RCRAInfo with myRCRAid, depending on your state.
 - https://www.epa.gov/e-manifest/frequent-questions-about-e-manifest#user_question18

Step 1: Register

Step 2: Request Access

Step 3: Quick Sign

The screenshot shows a web browser window with the URL <https://rcrainfo.epa.gov/rcrainfoprod/action/secured/login>. The page features the RCRAInfo logo and the EPA logo. On the left, there is a blue box with the text: "RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The system enables cradle-to-grave waste tracking of many types of information regarding the regulated universe of RCRA hazardous waste handlers. RCRAInfo characterizes facility status, regulated activities, and compliance histories in addition to capturing detailed data on the generation of hazardous waste from large quantity generators and on waste management practices from treatment, storage, and disposal facilities." On the right, there is a "RCRAInfo Sign In" form with fields for "User Id" and "Password", a "Sign in" button, and links for "Register", "Forgot User Id?", and "Forgot Password?". A red arrow points from the "Register" link to the "Warning Notice and Privacy Policy" section below. This section contains a "Warning Notice" with a list of 8 points regarding U.S. Government information access.

RCRAInfo

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The system enables cradle-to-grave waste tracking of many types of information regarding the regulated universe of RCRA hazardous waste handlers. RCRAInfo characterizes facility status, regulated activities, and compliance histories in addition to capturing detailed data on the generation of hazardous waste from large quantity generators and on waste management practices from treatment, storage, and disposal facilities.

RCRAInfo Sign In

User Id

Password

Sign in

[Register](#) [Forgot User Id?](#) [Forgot Password?](#)

Warning Notice and Privacy Policy

Warning Notice

In proceeding and accessing U.S. Government information and information systems, you acknowledge that you fully understand and consent to all of the following:

1. you are accessing U.S. Government information and information systems that are provided for official U.S. Government purposes only;
2. unauthorized access to or unauthorized use of U.S. Government information or information systems is subject to criminal, civil, administrative, or other lawful action;
3. the term U.S. Government information system includes systems operated on behalf of the U.S. Government;
4. you have no reasonable expectation of privacy regarding any communications or information used, transmitted, or stored on U.S. Government information systems;
5. at any time, the U.S. Government may for any lawful government purpose, without notice, monitor, intercept, search, and seize any authorized or unauthorized communication to or from U.S. Government information systems or information used or stored on U.S. Government information systems;
6. at any time, the U.S. Government may for any lawful government purpose, search and seize any authorized or unauthorized device, to include non-U.S. Government owned devices, that stores U.S. Government information;
7. any communications or information used, transmitted, or stored on U.S. Government information systems may be used or disclosed for any lawful government purpose, including but not limited to, administrative purposes, penetration testing, communication security monitoring, personnel misconduct measures, law enforcement, and counterintelligence inquiries; and
8. you may not process or store classified national security information on this computer system.

Visit RCRAInfo <https://rcrainfo.epa.gov>

Step 1: Register

Step 2: Request Access

Step 3: Quick Sign

1

Visit RCRAInfo
<https://rcrainfo.epa.gov>



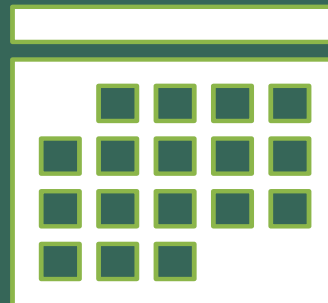
2

Register as an
Industry User



3

Create a 90-day reminder to
reset your password



Step 2: Request Access

- You've successfully registered for a user account, now it's time to request access to your site
 - EPA and authorized states will administer site access request for an EPA ID until that site has a Site Manager
 - The Site Manager can then approve or deny additional users for that EPA ID

Slideshow Nomenclature

Site = Site ID = EPA ID

- **Select Existing Site**
 - For sites that already have an EPA ID
- **Request New Site ID**
 - If you do not have a site ID and operate in a state that has opted into myRCRAid, you can acquire EPA IDs electronically

The screenshot shows the myRCRAid website interface. At the top is a navigation bar with the RCRA Info logo and links for Home, Reports/Extracts, Tools, Documentation, and Feedback/Report an Issue. The user is logged in as David. Below the navigation bar, there are tabs for 'My Sites', 'Outstanding Site ID Requests' (0), and 'Pending Requests' (0). The 'My Sites' section displays a table of sites with columns for Site ID, Site Name, Address, City, State, County, and Permission Status. Two sites are listed: TXD056541303 (FRITO-LAY INC) with a 'Pending' status, and VATEST000002 (TEST TRANSPORTER 2 OF VA) with an 'Active' status. At the bottom of the page, there are two buttons: 'Select Existing Site' (circled in red) and 'Request New Site ID'.

Site ID	Site Name	Address	City	State	County	Permission Status
TXD056541303	FRITO-LAY INC	948 AVENUE H E	ARLINGTON	TX	TARRANT	Pending
VATEST000002	TEST TRANSPORTER 2 OF VA	2777 S CRYSTAL DRIVE	ARLINGTON	VA	ARLINGTON	Active

Select Permissions ×

You've selected 1 site(s), now please choose the permissions you are requesting.

Module	Permission Level	Description of Permission
Site Management	None <input type="button" value="v"/>	None
Annual Report	None <input type="button" value="v"/>	None
Biennial Report	None <input type="button" value="v"/>	None
e-Manifest	None <input type="button" value="v"/>	None
myRCRAid	None <input type="button" value="v"/>	None

- There's different levels of site access for each module, which do you choose?
 - https://www.epa.gov/e-manifest/frequent-questions-about-e-manifest#user_question6

■ Different levels of site access

Site Manager



- Approve users, view invoices & submit payments, hold an API key/ID
- Submit completed manifests and corrections
- Create, edit and sign manifests
- View manifests

Certifier



- Submit completed manifests and corrections
- Create, edit and sign manifests
- View manifests

Preparer



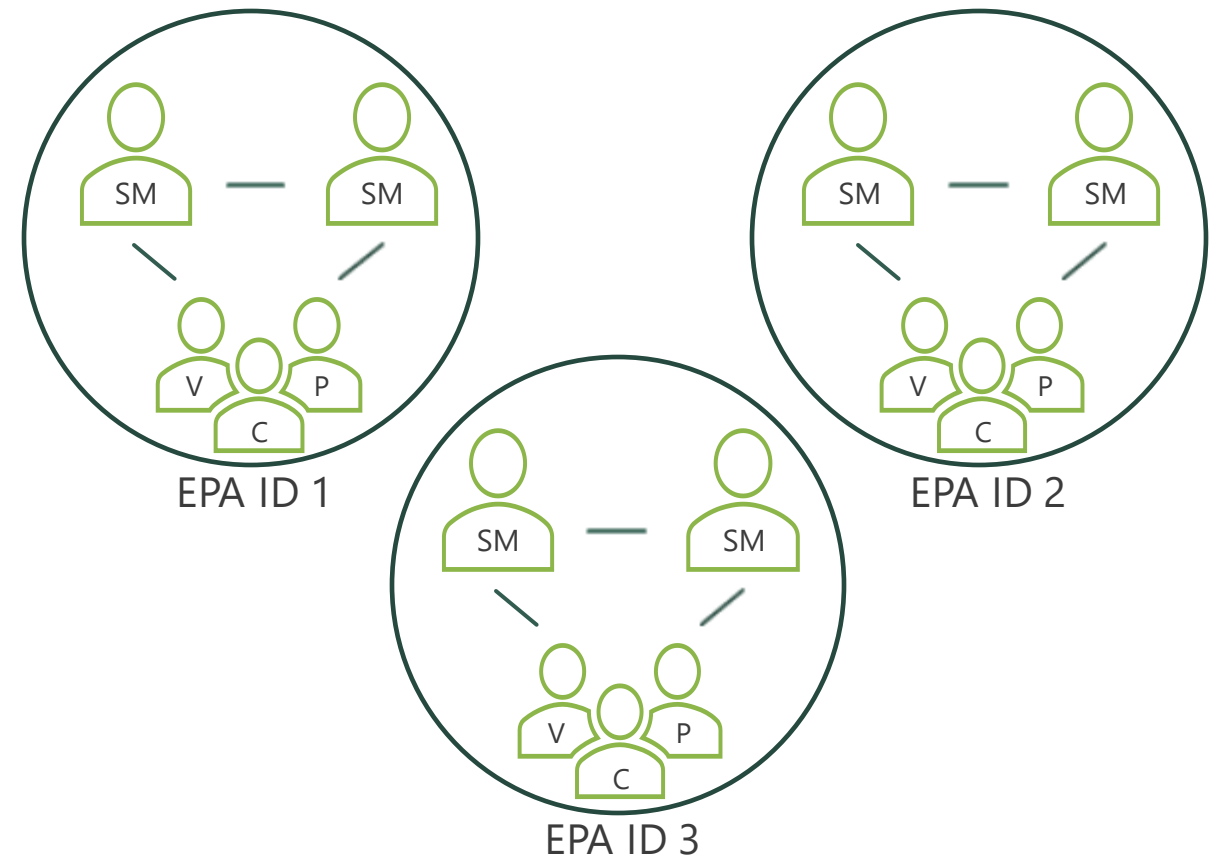
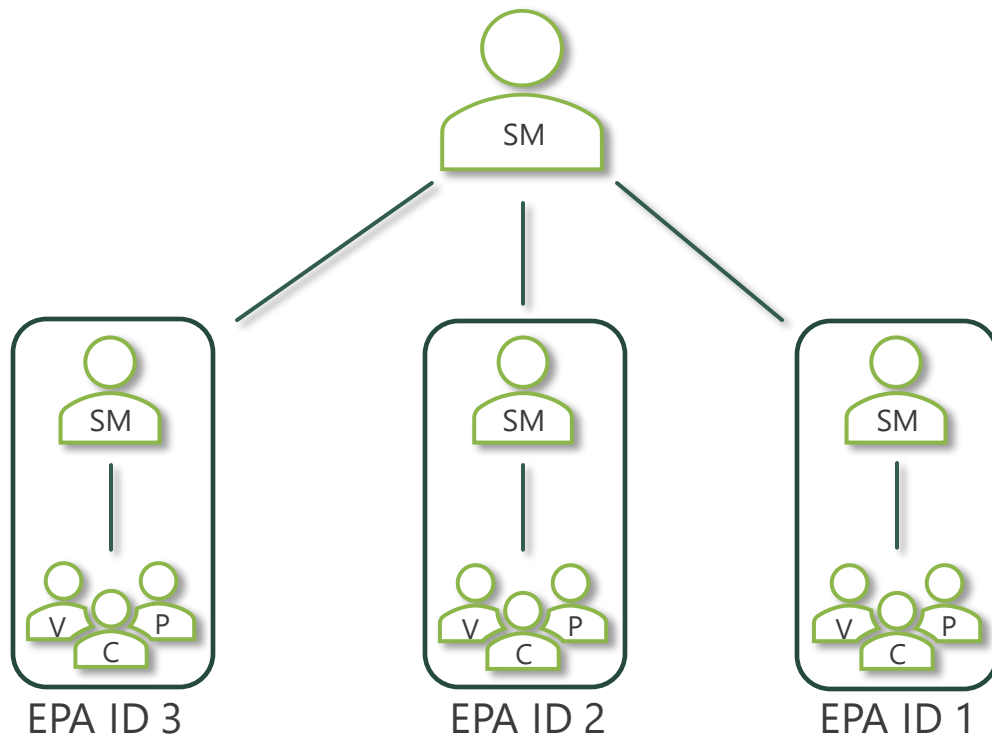
- Create, edit and sign manifests (Quick/Quicker (Remote) Sign only)
- View manifests

viewer



- View manifests

- Multiple ways to organize permissions for companies that have multiple sites
 - Ideally, we want redundant Site Managers for each site ID



You're Registered!

- Here a short list of things you can do to get jumpstarted:
 - Complete your Electronic Signature agreement (ESA)
 - Required for users with Certifier and Site Manager permission (only need to complete once)
 - This will let you submit corrections if you find manifest data that does not match up with what you expect (see below)
 - Add coworkers
 - As site manager you can approve/remove other RCRAInfo users for your site, even other site managers
 - Adding another site manager ensures that if you're on vacation or leave the company, there's another person there who can approve new people
 - Get familiar with RCRAInfo
 - Checkout Learning Zen (under the Documentation dropdown menu) for some quick training
 - Verify your site's data
 - Checkout out the e-Manifest tab to inspect manifests that have been uploaded by your TSDF(s) with your site's ID
 - **Verify your site's data and make sure that there are not any serious data quality issues such as another company using your ID, missing manifests that were not uploaded, incorrect waste line info. If you can think of it, we've seen data qualities with it.**
 - As a site manager (or someone with Certifier level permission in the e-Manifest module) you can submit corrections
 - If everything looks good, you can use RCRAInfo as your site's method of official recordkeeping for manifests to meet regulatory requirements
 - Check out Reports/Extracts to pull your site data in easily readable formats (pdf/csv).
 - Currently, your password needs to be reset every 90 days
 - Set a reoccurring reminder in your work calendar to reset your password if you don't get on frequently
 - If you think of some way we could improve RCRAInfo, a feature idea, you see a bug, or you have an issue of any kind, submit a ticket with the **Feedback/Report and Issue**; We love feedback!

Step 3: Quick Sign

- You've registered for an account, you've got access to your Site ID, someone wants you to sign an electronic manifest
 - You have 2 options for electronically signing
 - Quick/Quicker (Remote) Signatures: fewer clicks, sufficient for Generators, Transporters, and initial TSDF signatures; Preparer level can use
 - CROMERR-compliant signatures: required when submitting the final, completed manifest/corrections
- We'll focus on Quick Sign today

CROMERR Process	Quick/Quicker (Remote) Sign Process
Registration Steps	Registration Steps
1. User creates account	1. User creates account
2. User requests access to site as Certifier or Site Manager	2. Users requests access to site as a Preparer
3. User performs identity validation	
4. User creates challenge questions for signatures	Quick Signature Steps
Signature Steps	Quicker (Remote) Signature Steps
1. User clicks "Sign"	1. User clicks "Quick Sign"
2. User must re-enter password	1. User enters field personnel name and date
3. User answers challenge questions	2. User clicks "Quick Sign"
4. User clicks "Sign"	

- You're all set up! It's time to electronically sign manifests

TEST TRANSPORTER 1 OF VA
2777 SOUTH CRYSTAL DRIVE - ARLINGTON
VATEST000001

Site Details
myRCRAid
Biennial Report
Annual Report
e-Manifest
WIETS

View: Outgoing

Create New Manifest
Upload Paper Manifest
Sign Manifests
Search Manifests
Check Manifest Status

In Progress

Show 10 entries
Enter Manifest Tracking Number(s)

Manifest ID#	TSDf ID	TSDf Name	Last Updated Date	Status	Actions
UNASSIGNED	VATEST000003	TEST TSDf OF VA TWO	10/29/2019 10:40 AM		
100027630ELC	VAD000532119	TEST TSDf OF VA	09/05/2019 03:59 AM		

Manifests Awaiting CROMERR Signature 23
Manifests Awaiting Quick Signature 214

Sign Manifests

In the table below, select a single or multiple manifests and click the "Quick Sign" button. To review before signing, select the appropriate icons to view the scanned paper manifest image (if available) or complete data record.

Filter Manifests

Enter one or more manifest tracking numbers separated by a space or comma

Apply Filter
Clear Filter

Show 50 entries

Available For Quick Signature

Outgoing: 7

Transporting: 206

Incoming: 1

View: Transporting

- You're all set up! It's time to electronically sign manifests

Manifests Awaiting CROMERR Signature 2 Manifests Awaiting Quick Sign 2

Sign Manifests

In the table below, select a single or multiple manifests and click Sign. To review before signing, select the appropriate scanned paper manifest image (if available) or complete data record.

Filter Manifests

Enter one or more manifest tracking numbers separated by a space or comma

100024074ELC

Apply Filter Clear Filter

Show 50 entries

Select	Manifest ID#	Type	TSDF ID	TSDF Name	Shipped Date	Last Updated Date	Status	View
<input checked="" type="checkbox"/>	100024074ELC	Electronic	CAT000646117	CHEMICAL WASTE MANAGEMENT, INC.		07/10/2018 05:55 PM	Scheduled	Data

Showing 1 of 1 entries

Previous 1 Next

Quick Sign Cancel

Confirm

Please confirm that you want to sign this manifest. Depending on this site's role on the manifests, this action will set your User ID as the signer in one of the following sections:

- Item 15. Generator's/Offeror's Certifications
- Item 17. Transporter Acknowledgment of Receipt of Materials
- Item 20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

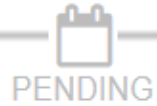
Continue Cancel

Electronic Workflow

A Theoretical Introduction to the e-Manifest Workflow



Status 1: Draft



Description

A working draft of a potential manifest without a Manifest Tracking Number (MTN)

Who can view

Only the site that drafted can view

Who can Edit

Site that drafted

- Preparers
- Certifiers
- Site Managers

Who Can Sign

Not applicable

- Needs to be moved to pending or scheduled by entity that drafted

Notes

Any type of handler can initiate a draft electronic manifest

Status 2: Pending


DRAFT
PENDING
SCHEDULED
IN TRANSIT
RECEIVED

Description

A manifest with an MTN (ELC suffix) waiting for approval to be set to the *Scheduled* status by the TSDf

Who can view

All handlers that are listed on the manifest can view

Who can Edit

All handlers that are listed on the manifest

- Preparers
- Certifiers
- Site Managers

Who Can Sign

Not applicable

- Needs to be moved to Scheduled by the receiving facility

Notes

Only the TSDf can move *Pending* manifests to the *Scheduled* status

Status 3: Scheduled


DRAFT
PENDING
SCHEDULED
IN TRANSIT
RECEIVED

Description

Hazardous waste shipment scheduled with the TSDF and ready for pickup by the initial transporter

Who can view

All handlers that are listed on the manifest can view

Who can Edit

All handlers

- Preparers
- Certifiers
- Site Managers

Who Can Sign

1. Fully Electronic:
 - Generator and Transporter sign electronically
 - Transporter prints copy for DOT requirements
2. Hybrid:
 - Transporter signs electronically
 - Transporter and generator print and sign 2 copies
 - 1 for Transporter
 - 1 for generator's records
 - Normal printer can be used (non-impact)

Notes

Before being moved to scheduled, this manifest can become a hybrid or fully electronic manifest

- Hybrid is the only option if the generator is not registered

Status 4: In Transit


DRAFT


PENDING


SCHEDULED


IN TRANSIT


RECEIVED

Description

Fully Electronic or Hybrid manifest accompanying a hazardous waste shipment in flight

Who can view

All handlers on the manifest can view

Who can Edit

Handlers who have not signed

- Some fields are no longer editable (e.g., previous handlers)

Who Can Sign

Non-initial transporter when applicable (see Notes)

Notes

This status is skipped if there is only 1 transporter

Status 5: Received (Ready for Signature)

e-Manifest


DRAFT


PENDING


SCHEDULED


IN TRANSIT


RECEIVED

Description

A Hazardous waste shipment in that is ready to be signed by the TSDF to signify change in custody (see Who Can Sign)

Who can view

All handlers on the manifest can view

Who can Edit

Handlers who have not signed

- Some fields are no longer editable (e.g., previous handlers)

Who Can Sign

TSDF

- CROMERR-compliant signature
- Quick sign

Quick Sign can be used to signify change in custody, but a CROMERR signature is necessary to certify and move the manifest to the *Signed-Complete* status

Notes

Electronic manifest can either be accepted, rejected

Status 6: Received (Signed-Complete)


DRAFT


PENDING


SCHEDULED


IN TRANSIT


RECEIVED

Description

A completed manifest that can be found in the e-Manifest module for all handler's digital records

Who can view

All handlers listed on the manifest

Who can Edit

Corrections can be submitted by any handler

- Corrections need to be certified with a CROMERR signature (Certifier or Site Manager)

Who Can Sign

Not Applicable unless a handler is submitting corrections

Notes

Done, Hurray!

Remote Signer



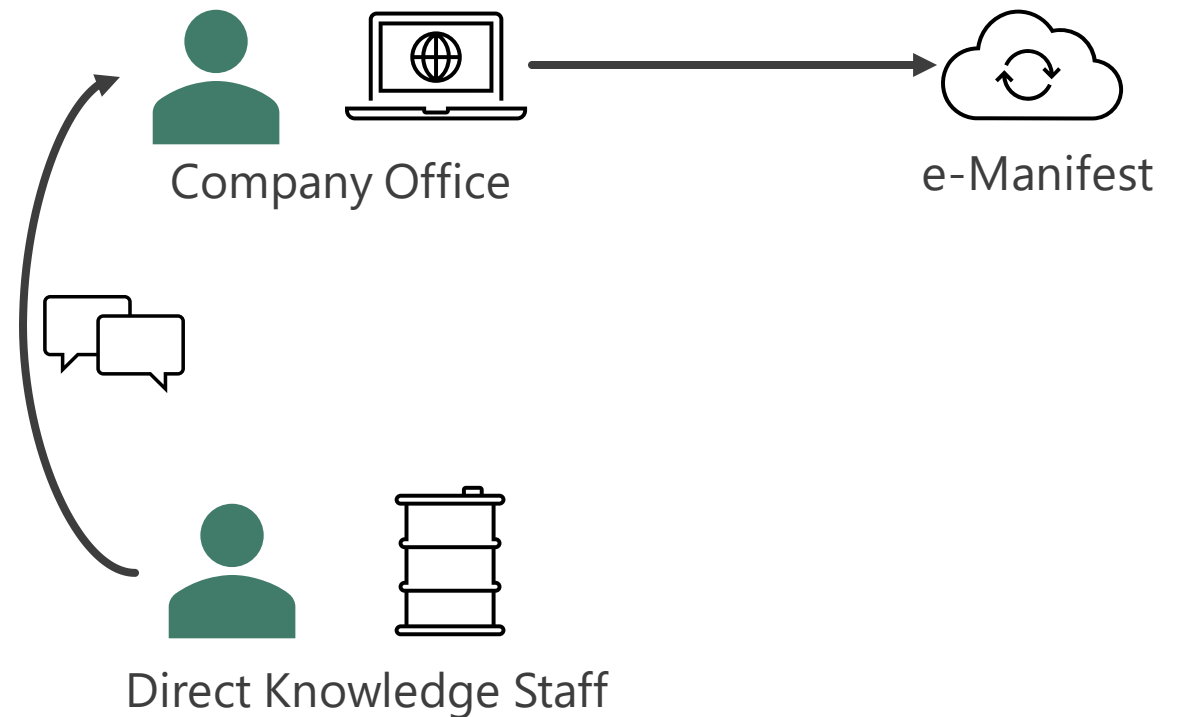
Signatures Overview

- On Site and Remote Signatures are **either-or** options to provide situational flexibility

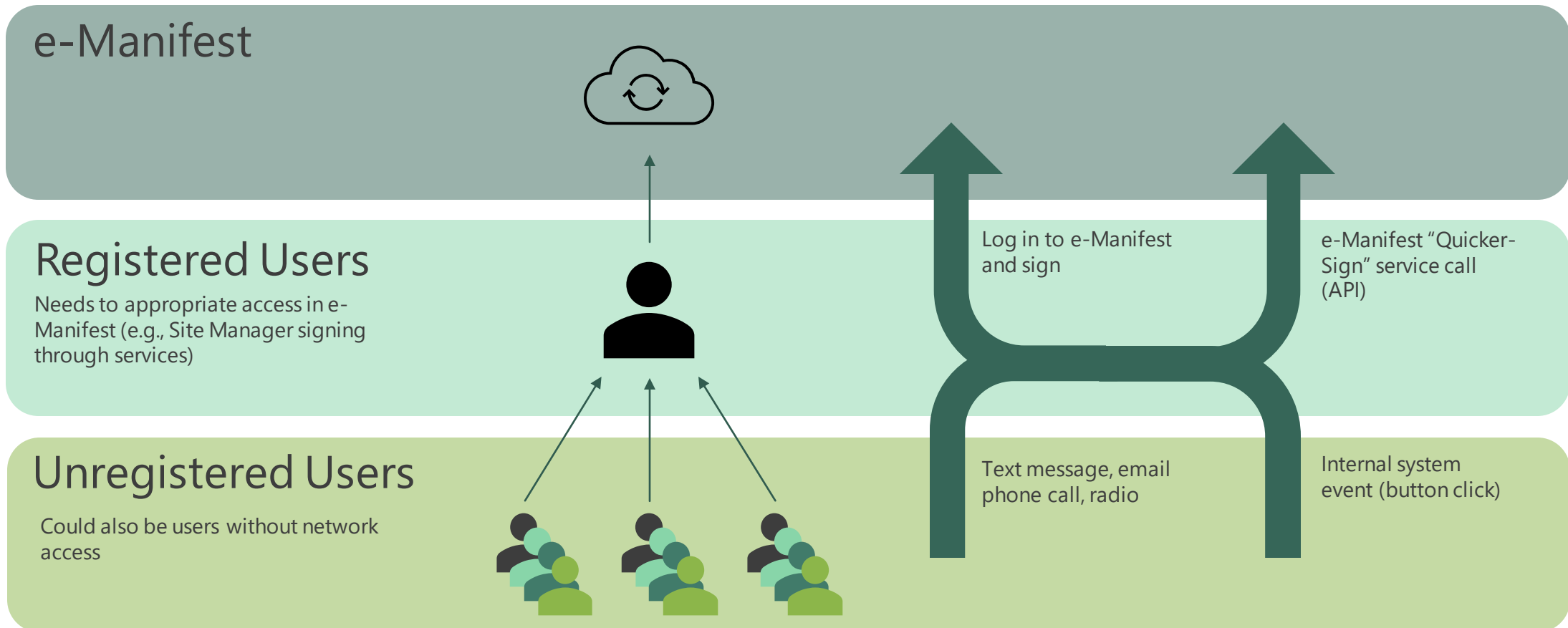
Signature Type / Purpose	Who	Where	How
On Site Signature (Quick Sign) <ul style="list-style-type: none"> Generator Transporter Initial TSDF receipt 	Registered e-Manifest user located on site with direct responsibility for the shipment	e-Manifest	Registered user with direct responsibility for the shipment logs into RCRAInfo with their own account and executes quick signature
Remote Signature <ul style="list-style-type: none"> Generator Transporter Initial TSDF receipt 	Registered e-Manifest user located remotely, who is authorized by field personnel with direct responsibility for the shipment (unregistered individual)	e-Manifest	Registered remote user logs into RCRAInfo with their own account, enters name of the field personnel and date, then executes the electronic signature
	User of internal company system that integrates with e-Manifest via API	Internal System	User initiates signature event in internal system, then that system calls e-Manifest quicker-sign API, providing name of field personnel with direct responsibility for the shipment and date to the API
CROMERR Signature <ul style="list-style-type: none"> Final TSDF submission Corrections 	Registered e-Manifest user with Certifier or Site Management Permission	e-Manifest	Registered Certifier or Site Manager logs into RCRAInfo provides password, second factor answer and electronically signs

Remote Signer

- Provides a method for:
 1. Signing through system-to-system communication
 2. Signing without direct internet access
 3. Unregistered individuals to sign electronic manifest through registered coworkers

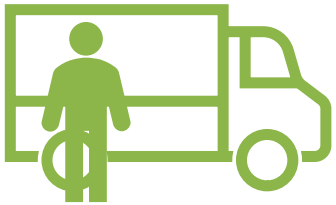


Remote Signer Policy – For Industry Systems



Remote Signer Policy - Using RCRAInfo

1



The individual (Field Personnel) directly responsible for the hazardous waste is ready to take custody of the shipment.

2



The Field personnel communicates that the manifest(s) is ready to be signed and authorizes the Remote Signer to initiate the electronic signature.

3



The Remote Signer logs into RCRAInfo (with their own username and password) and signs the corresponding electronic manifest(s).

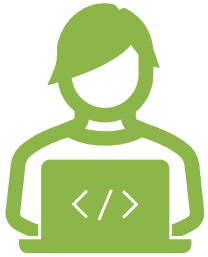
4



The electronic manifest(s) is successfully signed, the valid and enforceable signature is stored in the e-Manifest system. The status is communicated back to the Remote Signer through the RCRAInfo user interface.

Remote Signer Policy – For Industry Systems

1



The Site's hazardous waste management software is configured to interface with RCRAInfo using the Remote Signer's API credentials.

2



The field personnel logs into their site's hazardous waste management software and initiates the electronic signature. The electronic signature is sent as a request to the e-Manifest system through the API.

3



The electronic manifest(s) is successfully signed, the valid and enforceable signature is stored in the e-Manifest system. The status of the electronic signature process is communicated back hazardous waste management software.

Remote Signer Result

- The registered user and unregistered user's name are both recorded on the manifest.

Unregistered User

20. Designated Facility Owner or Operator			
EPA ID Number	Name	Designated Facility Printed/Typed Name	Date Signed
VATESTTSD03	VA TEST TSDF 2021	testuser1	11/02/2023
		Designated Facility Signature Provider	Date Signed
		David Graham	11/01/2023 09:56 PM

Registered User

Get Involved

How to contribute to the future development of the program



Try e-Manifest in the Test Environment (Pre-Prod)

e-Manifest

- Pre-Prod is publicly available
 - You can dry-run electronic/hybrid manifesting with your next shipment
 - Test the integration of your system with the e-Manifest API
 - Give feedback/report issues on newly developed features
 - Suggest enhancements!
- <https://rcrainfopreprod.epa.gov>

RCRAInfo (Pre-Production)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The system enables cradle-to-grave waste tracking of many types of information regarding the regulated universe of RCRA hazardous waste handlers. RCRAInfo characterizes facility status, regulated activities, and compliance histories in addition to capturing detailed data on the generation of hazardous waste from large quantity generators and on waste management practices from treatment, storage, and disposal facilities.

RCRAInfo Sign In

User Id
Password

Sign in

[Register](#) [Forgot User Id?](#) [Forgot Password?](#)

Warning Notice and Privacy Policy

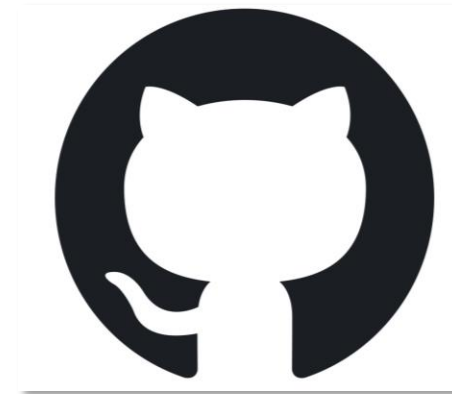
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2. unauthorized access to or unauthorized use of U.S. Government information or information systems is subject to criminal, civil, administrative, or other lawful action;
3. the term U.S. Government information system includes systems operated on behalf of the U.S. Government;
4. you have no reasonable expectation of privacy regarding any communications or information used, transmitted, or stored on U.S. Government information systems;
5. at any time, the U.S. Government may for any lawful government purpose, without notice, monitor, intercept, search, and seize any authorized or unauthorized communication to or from U.S. Government information systems or information used or stored on U.S. Government information systems;
6. at any time, the U.S. Government may for any lawful government purpose, search and seize any authorized or unauthorized device, to include non-U.S. Government owned devices, that stores U.S. Government information;

Integrate your system via our API

- The e-Manifest Application Programming Interface (API) is robust and stable
- Currently, The API allows users to
 - Create/update/correct/delete manifests
 - Quicker (Remote) Sign manifests
 - Pull site information
 - Deep link directly to (bulk) sign manifests
 - Look up waste/source/management method codes +
 - and more!



You can find more information on the e-Manifest Github repo (USEPA/e-Manifest)

<https://github.com/USEPA/e-manifest>

Useful Links

- RCRAInfo (links to help documentation, video library, data reporting tool inside)
 - <https://rcrainfo.epa.gov/>
- Subscribe to our low-volume mailing lists
 - <https://public.govdelivery.com/accounts/USEPAORCR/subscriber/new>
- e-Manifest program website
 - <https://www.epa.gov/e-Manifest>
- e-Manifest FAQs
 - <https://www.epa.gov/e-manifest/frequent-questions-about-e-manifest>
- e-Manifest webinars
 - <https://www.epa.gov/e-manifest/monthly-webinars-about-hazardous-waste-electronic-manifest-e-manifest>

Contact the e-Manifest Team

- [Scott Christian](#), Technical Lead
- [Stephen Donnelly](#), Program Manager
- [David Graham](#), State & Industry Implementation Lead
- [Bryan Groce](#), Policy Lead
- [Fred Jenkins](#), e-Manifest Advisory Board Designated Federal Officer, and e-Manifest Program Communications Lead
- [Amanda Kohler](#), Chief, Permits Branch
- [Kyle Markley](#), Electronic Adoption Lead
- [William Nicholas](#), Data Lead
- [Thomas Reaves](#), Security Lead

Thank you



David Graham

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