e-Manifest Requirements Meeting – Denver, CO March 21-22, 2013

*Please Note: throughout this meeting summary, various documents are referred to such as the 'AS-IS' process diagram or the requirements slide deck. Please see the Denver meeting materials section of the website (http://www.epa.gov/osw/hazard/transportation/manifest/e-man-meetings.htm) for access to these documents. These documents are not attached as appendices.

1. Background

On March 21-22, 2013, the U.S. Environmental Protection Agency (EPA) held an e-Manifest Requirements meeting at the EPA Region 8 Office in Denver, Colorado to discuss the existing paper manifest business process, the proposed electronic manifest business process, and review the requirements captured to date. This was the third of three e-Manifest Requirements meetings that EPA will be conducting to solicit industry and regulatory input into the proposed business processes and requirements of the national system. The stated purpose of the meeting was to establish a common high-level understanding of e-Manifest, better understand user needs and expectations, and capture and document input to inform the system requirements process.

2. Introduction

Derrith Watchman-Moore, Acting Assistant Regional Administrator, Office of Partnerships and Regulatory Assistance (OPRA), welcomed participants and provided a brief history of the e-Manifest project. Kristen Gunthardt, EPA Office of Resource Conservation and Recovery (ORCR), reviewed the meeting agenda and discussed meeting logistics. Rich LaShier, EPA ORCR, reviewed the background and history of e-Manifest, discussed the Hazardous Waste Electronic Manifest Establishment Act, and spoke to the overall e-Manifest planning process. During the introduction presentation, various questions and discussion points were raised, including:

- **User Fees:** What is the envisioned approach and structure for user fees?
  - **Answer:** EPA is planning to structure and define the approach for user fees during rule making next year. Right now, the area of user fees is not defined. Mr. LaShier mentioned that differential fees may be used to increase utilization of e-Manifest. It was noted by attendees the ultimate burden of fee should stay with the generator.
- **Access to Data:** Has EPA thought about limitations on access to e-Manifest data, including public access?
  - **Answer:** Yes, EPA is aware of the concerns regarding data access, especially for Handlers; public access does have a different tone because it is a centralized, electronic system. Mr. LaShier stated that Handlers will always have access to the data regarding manifests they are involved with.

3. Existing Paper Manifest Business Process

The team from Blue Canopy, EPA's e-Manifest Requirements contractor, provided a walk-through of the current (As-Is) paper manifest process. This section of the meeting focused on the existing paper manifest business process as expressed in the As-Is Manifest process diagram. Various questions and discussion points were raised, including:

- **Ready for Transport:** It was noted the 'Retain Copy 5 of Manifest' activity in the Transporter swimlane is not accurate – as the Transporter retains all copies but 6 at this point.
- **In transit corrections:** It was stated that all actors should be able to make in transit manifest corrections and the process diagram should be modified to expand the 'Make corrections to manifest' activity to all swimlanes.

4. To-Be Electronic Manifest Business Process/Proposed Requirements

The contractor provided a walk-through of the proposed (To-Be) electronic manifest process. After the To-Be process was reviewed, each phase of the To-Be manifest process was explored in depth using the proposed requirements slide deck. The discussion of the proposed requirements spanned the March 21st afternoon and the March 22nd morning sessions. The functional areas from the proposed requirements slide deck were reviewed in the following order:

User Admin Functional Area (Slides 1-2)

This functional area covers the requirements for setting up new users, managing users, and deleting users. A question was raised about the types of roles that would be supported by the system; it was stated the roles are still under development, but proposed roles (EPA administrator, industry/state administrator, handler, regulator, emergency responder, importer/exporter, 'signature on behalf of', etc.) were presented and discussed. It was stated the Handler will be able to manage e-Manifest accounts under the Handler account, and that both a self-registration process and a batch registration process would be supported. Clarification on what type of data is required for handler accounts was requested. The system will provide the capability to deactivate user accounts no longer in use; deactivated account records will not be deleted, but will be maintained in the system.

A question was asked about how users will switch to different transporters if they want to use a different transporter to go to a new alternate facility or generator. It was stated that users will have to log into the system and switch transporters. It was noted that each state site has a different EPA ID and suggested that a role be created to control all the different state sites. It was discussed that Handler accounts will be at the facility level (with the realization that not every entity has an EPA ID), and it was requested that a corporate-level administrator ('super user') be given the capability to control facility Handler accounts for the corporate entity. This corporate-level administrator will have the capability to control all users and sites across the corporation. Questions as to how one-off manifests will be handled were raised. It was stated the system should flag duplicate Handler accounts associated to the same EPA ID. A question was raised about the criteria that would need to be met to be a signee and EPA responded by stating that all that is required is for the individual to be a representative of the Handler. It was confirmed that system to system data connections would be supported.

It was noted the system should have the capability to have certain records restricted by a company and the capability for someone to have read only access when a third party company does reporting for a Handler.

A concern about how long it will take to get the EPA ID and when it will be added to the account was raised; it was stated the system should have a capability for the Handler to add the EPA ID to the corporate Handler record manually if necessary. It was suggested that a streamlined emergency

manifest track be developed – one that would automatically generate a temporary Handler ID, automatically assign a Manifest Tracking Number (MTN), and support the 'one off' creation of a manifest. It was suggested that temporary Handler IDs should be deactivated after a given period of time. It was confirmed that, at least in the first phase of implementation, first responders will not be registered in the system. It was noted that Canada has an Emergency Response Action Plan that might be good to observe.

It was noted that registered generators should be able to perform broker functions within the system and recommended that brokers who don't act as generators have to register in the system. It was agreed the system should require an affirmative action by a generator/transporter/TSDF to associate themselves with a broker and there should be a relationship connection with a broker and handler, which will be managed by the Handler. It was stated that TSDFs would like to be able to set up user accounts for 'less sophisticated' users.

Stakeholders were asked if it would it be considered an excessive burden to have states/industry administer user accounts; it was suggested that States should manage all their agency accounts and the EPA will manage all the generators accounts. With regard to the 'signature on behalf of' concept, it was noted that currently, the TSDF/broker has a signed proxy to allow users to sign for a generator. It was requested the system provide a two-pronged security approach, where access by a particular user is limited to a subset of manifests – but given the option to allow authorized users to access all data and distribute it accordingly. It was suggested that if eManifest Handler accounts are to be automatically created when new RCRAInfo accounts are created and the system should create the eManifest Handler accounts on a daily basis (at a minimum).

Miscellaneous Functional Area (Slides 3-4)

This functional area covers the generation and maintenance of e-Manifest Handler records and lookup tables for manifest data elements. It was stated the e-Manifest Handler record will be uniquely identified by the EPA ID Number, and will contain the Handler name, address, email address, and phone number. It was noted that some small generators don't have an email address and the field should be made optional and that a field for a fax number should be added. It was noted that when there is no EPA ID number, some states will generate a temporary ID. A concern from the industry that states would be able to go in and update their e-Manifest Handler record was raised. It was stated that e-Manifest Handler records should have a log of its changes and send notifications when a change occurs. It was noted that an outstanding issue about how to merge Federal and State Handler Accounts exists and should be resolved.

It was stated the system shall support lookup tables for manifest data elements (for example, hazardous waste codes, Management Method Codes, DOT Hazmat shipping descriptions and codes). It was noted the construction of DOT Hazmat shipping descriptions and codes is extremely complicated and could not be supported by a standard lookup table. An additional comment made suggested that if e-Manifest must reference DOT tables, e-CFR should be used. It was also noted that state waste codes would provide some complexity and discussion about how they would get into the system is warranted. It was suggested the management of the lookup tables should occur at different levels (i.e. Federal, state, handler) depending on the content of the lookup table. It was suggested the system support as many

waste codes as possible to potentially support Biennial Reporting requirements in the future. A question was raised regarding what should be the initial source of the e-Manifest handler record – it was suggested that data should be pulled from industry systems and RCRAInfo.

Electronic Manifest Creation Functional Area (Slides 5-6)

This functional area covers the processes from initial manifest creation; including required data elements and user templates or waste profiles, until the generator (or authorized representative) is ready to sign the manifest. The requirement that a system shall generate unique electronic MTNs utilizing a standardized format that will be easily distinguished from the tracking numbers currently used for paper manifests was discussed; it was suggested that an additional identifier in addition to the MTN be supported to help ensure uniqueness. Further it was noted that California uses a manifest number plus the shipment date. Stakeholders requested the electronic MTN have the same number of characters as the current paper manifest tracking number, because their external systems are configured that way. It was confirmed that draft manifests created via the electronic manifest creation user interface should be able to be deleted. It was requested the system flag electronic manifest records that include attached files.

Stakeholders stated they would like to see greater precision with weight (tenths or hundredths of a pound) on the electronic manifest. It was noted that EPA recently came out with guidance that this could be clarified in Section 14 of the manifest.

The question as to what additional optional data elements should be added to the electronic manifest record was raised - suggestions included the Vehicle ID number (also known as the Car Mark ID), LDR type certifications, more general waste stream categories, final disposal method, actual weight received by TSDF (noted that this would require a significant capital cost incurred by TSDFs), and date generated to allow for categorization of generator (noted that this would add burden).

It was asked if there are standard non-federal EPA IDs that should be used in the place of the Generator ID in cases of the transport of PCBs, State-regulated waste, etc. It was stated that there is not a list of standard non-federal EPA IDs, but the non-federal EPA IDs used in place of the Generator ID should identify the state.

It was asked if the system should support the off-line creation of manifests and if this should this be restricted to cases where the handler is provided blocks of pre-assigned manifest numbers. It was stated the system should support off-line manifest creation and that if EPA does not guarantee 24x7 availability, the system will have to support off-line manifest creation. It was noted that there might be an issue with the delay between when the generator signs to when the transporter leaves if the manifest was created without data connectivity.

Electronic Manifest Workflow General Requirements Functional Area (Slides 7-8)

This functional area covers requirements for the 'chain-of-custody' workflow for generators, transporters and TSDFs, data error checking for completed manifests, offline and online mode requirements, and electronic signature requirements. It was noted that authorized entities associated with a specific manifest should be notified of any changes to the manifest data after the manifest has

been signed by the Generator, and that a record of the communication should be maintained in the system - for Handlers without email, it was suggested the system provide the capability for users to specify the form of communication that was used.

The requirement that a paper copy of the manifest will still need to be carried on the transporter's vehicle was discussed. It was clarified that DOT's requirement for a paper shipping document still remains intact, and that within the workgroup for the rule making, states felt it would be much more consistent to have the manifest be printed. Some people agreed that it should be the manifest. A comment was raised that some printers on the trucks won't be able to print the full manifest and that a huge fleet and number of printers that would have to be converted would be problematic.

A question was raised as well regarding having multiple loads and/or trucks coming in and with e-Manifest, how will a facility know which manifest goes with which shipment? It was discussed that perhaps an additional identifier such as the vehicle number be placed on the electronic manifest to help. It was also discussed that there might be multiple drivers, transporters, consolidations, separations in a shipment, and that the system needs to capture linking manifests and cover manifests.

Electronic Manifest Workflow Phase – In Transit Functional Area (Slides 9-10)

This functional area covers the requirements for the 'chain-of-custody' workflow specific to the In Transit phase, requirements for corrections to manifest data while in the In Transit phase, and requirements related to the international importing/exporting of hazardous waste. It was agreed the system should ensure that all manifest data elements be entered and all e-signatures captured in the proper sequence through disabling appropriate functionality until the required information is provided.

Electronic Manifest Workflow Phase – Received/In-Process/Accepted Function Area (Slides 11-12)

This functional area deals with the requirements for the 'chain-of-custody' workflow specific to the Received/In-Process/Accepted phase and the requirements for discrepancy reporting. Stakeholders discussed the requirement the system shall change the status of a shipment to 'UNKNOWN' after the passage of a specified time without a status change being made by the TSDF. It was noted that when the status is changed to 'UNKNOWN', there should be notifications sent to all authorized entities. It was requested that TSDFs be given the capability to change the 'UNKNOWN' or 'ACCEPTED' statuses to 'RECEIVED/IN-PROCESS'. It was stated that some stakeholders want to be able to maintain the manifest record in their external system and sync with e-Manifest at every change of status/chain-of-custody in the workflow; a question was asked if this upload could happen on a regular basis (weekly) instead of doing it with every change in status.

Data QA Functional Area (Slides 13-14)

This functional area covers data Quality Assurance (QA) between Handlers and QA between states and Handlers. Stakeholders agreed the data variance reports should be provided to Handlers as well as states. It was suggested the system should be able to validate the Handler record against the data being entered and that there should be notifications when anything occurs to the Handler record and also popup up windows that ask users to accept the changes. A question regarding necessary system requirements for QA between the states and industry prior to and after manifest completion was asked.

It was noted that rules should be in place to prevent bad data from being entered into the system, but these rules should not have a significant negative impact on performance. Industry stakeholders requested information regarding the QA structure so they can start configuring their systems up to align with the rules in e-Manifest.

A point was raised that from previous experience interacting with state data reporting systems, it is much easier for submitter if only single errors in a batch loaded file are kicked out, instead of an entire file when there are errors. The system should also distinguish logically between fatal errors and warnings.

Electronic Manifest Format and Communications Standards Functional Area (Slides 15-16)

This functional area covered requirements for what standard formats or communications (encoding protocols, etc) are needed to support electronic manifest creation or data access and QA. The proposed requirement the system should be able to adhere to an electronic presentation standard to enable e-Manifest display that is similar to the appearance of paper form was discussed. A TSDF stakeholder raised the issue that they have a lot of capital invested in small hand held equipment that can't support this requirement. It was agreed the electronic manifest should be able to be viewed/updated on multiple types of mobile devices. A railroad stakeholder stated the railroads never need to see the manifest – they only need acceptance of waste shipped into transport and, if it is exported, confirmation that it left country on day and time stated. XML and EDI were mentioned as prevalent data exchange standards currently in use by industry; it was noted the standards bodies are ANSI X12 for EDI and the WC3 Committee for XML.

Data Access and Reporting Functional Area (Slides 17-18)

This functional area covers what the system will need to do to provide access to the data and provide reports out to various users once manifest data is approved or "final" in the system. It was mentioned that States will have lots of different reporting requirements, and that States should work together to determine what common reports are required. One state indicated a desire to have all data for all shipments that originate or end in the state. There was a recommendation that resources not be used developing standard reports for industry, as there would be too many reporting requirements and industry views the system more as a data repository, from which they would generate their own reports.

Stakeholders noted that data should be able to be exported in multiple formats, including Comma Separated Value (CSV) and Excel, as there is a limitation to the amount of data that can be exported in Excel format.

Paper Manifest Processing Functional Area (Slides 19-20)

This functional area is concerned with the processing of paper manifests and the upload of paper manifest data into the e-Manifest system. The clarification was made that batch uploads would be accepted, however EPA noted as well that there might also be a need to meet CROMERR certification requirements as a part of batch uploading data, but that is still being determined. It was stated there needs to be a requirement describing the quality of scanned paper images. Industry stakeholders expressed the desire to have the capability to enter paper manifest data into their external systems,

which would then be transferred to the e-Manifest system. A question was raised regarding Generators being provided a copy of the paper manifest – it was stated the business process may want to maintain the paradigm of the TSDF sending a copy of the paper manifest back to the Generator.

5. Stakeholder Feedback

In addition to the requirements discussion, the March 15th morning session included a stakeholder feedback session. Attendees went around the room to bring up any observations from the first day as well as raise any questions or expectations. The feedback received, as well as questions raised and answers provided, are listed below:

- It was suggested that continuation sheets be done away with and the e-Manifest system should have the capability to accept all user-entered data without the need for a continuation sheet.
- A question was raised about the implementation approach; it was stated the e-Manifest system will be deployed using an iterative approach and will include an integrated project team with user representation. It was stated that anything that touches the manifest now and everything on the To-Be process diagram will be covered in phase 1.
- A question was asked as to how to get people off paper process; it was stated that users will be charged money for using the paper process.
- EPA was asked how they are going to integrate with the Customs and Border Patrol system it was noted the Railroad EDI system currently interfaces with the CBP system. It was mentioned that EPA interfaces with other agencies that work with the manifest process to become more efficient, and will continue to do so.
- It was asked if there will be changes to the regulations because of the e-Manifest system. Mr. LaShier replied that it is a different medium but the same regulations apply. (Although he noted this will still be up for discussion.)
- Railroad stakeholders stated that Transporters shouldn't be charged for the fees because it's the Generator's waste.
- It was stated there needs to be a way to generate and sign manifests when there is a wreck or emergency response.
- It was noted that sometimes waste isn't weighed. For example, a company might have 150K containers and it unrealistic to expect all of them to be weighed.
- The issue of CROMERR compliance was discussed. It was mentioned that, according to a 1996 memo, a duplicate of an original document is as good as the original when used as evidence. It was stated the use of pin/password or digital signature are acceptable and there may be the need to add personal identification questions to authenticate code based signatures. It was suggested that a validation study for digital signature pads needs to be conducted and stated that there will be standard capability for digital signatures. It was noted that EPA may need **to** have a discussion with CBP about signatures on an export.
- It was noted that there may need to be the capability for communications between TSDFs and Generators before the shipment arrives at the TSDF.
- It was stated that there should be public access of information and there should be some publicly accessible search functionality.

- It was noted that there are currently no proposed requirements regarding linking manifests and that there needs to be a cover manifest linking multiple manifests**.**
- It was stated that there needs to be a master log for when a batch upload to the system has occurred and a validation of which records are being overwritten when batch uploading.
- EPA was asked if the functional specifications for e-Manifest will be published. The response was the functional specifications will be made public to user community and vendors. It was noted that stakeholders would appreciate the opportunity to comment on the published specifications.
- EPA stated that their goal was to meet with the rail industry by the first week of May to discuss, among other topics, the railroads' EDI systems.
- EPA was asked to confirm that there won't be any liability issues when using the pilot system as stated in the regulations. Mr. LaShier confirmed the regulation addresses this concern.
- There were questions about the e-Manifest timeline. It was stated the e-Manifest Rule will be established no later than October 5th, 2013. It was noted the detailed schedule is contingent on funding, but the deadline for the Analysis of Alternatives and Concept of Operations is June 15th, 2013, and the design phase will occur in 2014 as long as funding is available.
- It was noted that different states have different methods of Biennial Reporting and that there have been issues in the past with downloading industry data into state systems and that there is experience to be learned from this.
- Industry stakeholders expressed the desire to participate in any system pilot/beta testing.
- A question was asked if there is any interest in loading existing manifest data into the e-Manifest system. Mr. LaShier stated at this time there was no interest in doing so.
- It was asked if e-Manifest would support multiple browsers. It was noted that there is an HTML standards that supports multiple browsers.
- Clarification was requested on when EPA will decide on CROMERR so states can determine if the requirements align with state standards.
- EPA was asked when they will know if they can't make the October 2015 system implementation date. Ms. Gunthardt stated that EPA is not sure yet of a 'drop-dead' date, but will communicate it.

Appendix A: Meeting Attendees

No.	Name	Organization	Phone	Email	Job Title
1	A.T. (Tom) Rutledge	Ash Grove Cement Company	620-432-5075	tom.rutledge@ashgrove.com	WDF Manager
2	Ann Carberry	DTSC-Hazardous Waste Management Program	916-322-1131 Office 916-502-3258 cell	acarberr@dtsc.ca.gov	Senior Hazardous Substances Scientist
3	Brady Christensen	Montana Department of Environmental Quality	406-444-1435	bchristensen@mt.gov	
4	Brian Lindman	McCoy and Associates	303-526-2674	bplindman@mccoyseminars.com	Senior Environmental Specialist
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6	Chad Cliburn	Kansas City Southern Railway	250-891-2136	chad_cliburn@yahoo.com	Consultant
7	Charles Kuntz	Union Pacific Railroad	402-544-5146	crkuntz@up.com	Systems Engineer
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13	David Green	Missouri Department of Natural Resources	573-751-3204	david.green@dnr.mo.gov	Research Analyst

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14	David Nielsen	Clean Harbors Environmental Services		Nielsen.david@cleanharbors.com	Director of Environmental Compliance
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16	Dawn McLaughlin	CB&I	757-640-6923	dawn.mclaughlin@cbi.com	Client Program Manager
17	Debbie Umbarger	Ash Grove Cement Company	620-433-3517	debbie.umbarger@ashgrove.com	WDF Clerk
18	Derek Hall	North Dakota Department of Health- Division of Waste Management	701-328-5168	dahall@nd.gov	Environmental Scientist
19	Dustin Witt	South Dakota Department of Environment & Natural Resources	605-773-6498	Dustin.Witt@state.sd.us	Engineer II
20	Guy Outred	Windsor Solutions, Inc.	5038883313	guy_outred@windsorsolutions.com	President
21	Joe Schieffelin	Colorado Department of Public Health and Environment	303-692-3356	joe.schieffelin@state.co.us	Manager, Solid and Hazardous Waste Program
22	Jon Cordova	California Department of Toxic Substances Control	(916) 324-7193	Jon.Cordova@dtsc.ca.gov	Policy Process Manager
23	JONATHAN BROOME	THE ENVIRONMENTAL QUALITY COMPANY	734-329-8054	jonathan.broome@eqonline.com	PROGRAMMER/ANALYST
24	Joseph Stambersky	Southern California Edison	626-462-8733	joseph.stambersky@sce.com	Manager Hazardous Waste Section

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25	Justin Wilson	Wal-Mart Stores Inc.	479-531-6237	Jwils22@wal-mart.com	Sr Manager EH&S Compliance
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34	Michael Fusco	Safety-Kleen-Systems/Clean Harbors	610 558-3186	mike.fusco@safety-kleen.com	East EHS Director
35	Michael Marshall	California Department of Toxic Substances Control	9164452954	mmarshal@dtsc.ca.gov	System Software Specialist

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36	Pamela LaFountaine	Montana Dept. of Environmental Quality	406-444-2891	plafountaine@mt.gov	State Data Control Specialist & Analyst/Web Publisher/Federal Data Steward
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