WEBINAR 3: MANIFEST DATA QUALITY AND E-MANIFEST INTEGRATION WITH BIENNIAL REPORT

SUMMARY

Note: Webinar participants are reviewing this summary and will provide comments to EPA by July 20, 2009. EPA will revise the summary to reflect their comments and post the revised version.

I. Background

On June 9, 2009, the U.S. Environmental Protection Agency (EPA) held a webinar to discuss manifest data quality and e-Manifest integration with the Biennial Report. This was the third of four webinars that EPA will hold to solicit user input into the design, development, and operation of the national system. The system would be an alternative to the current paper-based procedures found in 40 CFR Parts 262 to 265.

Section II of this document summarizes the webinar. Section III presents comments about the e-Manifest that were e-mailed to EPA after the webinar. A table of attendees is included at the end of this document. The presentation slides used during the webinar are provided as a separate attachment.

II. Summary

The facilitator began the webinar by conducting a roll call to identify all attendees.

The facilitator then discussed the reasons why EPA wants to integrate the e-Manifest and Biennial Report. Several reasons were identified. One is to reduce user and state agency burden. Another is to improve e-Manifest data quality, which can be achieved through several features, including system-enforced data checks, enhanced incentives to report data accurately, and opportunities in the business process to correct data entries. Another is that integrating these reporting requirements can lead to dramatic improvements in data timeliness. Finally, integration was identified by stakeholders at the November 2008 meeting as a high priority.

Mr. Appelt of Safety-Kleen then provided background on how his organization currently conducts its manifest and Biennial Report activities. His discussion served as an example of how a TSDF approaches the reporting requirements. Safety-Kleen uses its manifests to compile data for

the Biennial Report. Its manifests are generated in one of two ways. One way is by producing a draft manifest in advance for its customers when it has a scheduled service call with some information pre-filled by the computer. When the service representative reaches the customer, additional information is completed as necessary. The second way is by producing a manifest from scratch on-site. In both cases, when the waste and the manifest reach the Safety-Kleen facility, the information is entered into its system to verify the volume and other data. For example, if a generator has changed its phone number or address, that change is captured in the system. After this initial step, the team reviews the manifests to make sure the information in the system is correct. They conduct an auditing process for quarterly and monthly reports required by the states as well as for the Biennial Report. During the first quarter of each year, they conduct their QA/QC process on the Biennial Report data and then ensure that all shipping documents in the system are closed out. They pull information out of their computer system to satisfy reporting requirements. They also check that the output is correct, because sometimes state and federal reports change from year to year.

Mr. Ben Smith added that Safety-Kleen's programmers have built separate jobs to pull data for each state's reports and the Biennial Report, so each of those datasets is reviewed before the information is submitted to the agency. Mr. Appelt agreed that data are verified both before they are entered into the system and as the reports are run.

The facilitator asked if Safety-Kleen prepares the Form GM for its generator customers. Mr. Appelt replied that it does not prepare these forms for its customers.

The facilitator then discussed information provided by the New Hampshire Department of Environmental Services on how it collects manifest and Biennial Report information. The state collects the manifests from generators and puts the data in a database. It reviews the data and follows up with generators and transporters as necessary. It produces quarterly reports with these data and sends them to generators to review, sign, and submit. For the Biennial Report, it pre-populates Site Identification Forms and sends them to the generators to review and complete. The state then compiles the updated forms, enters the data into its database, and sends the data electronically to EPA for the Biennial Report submission.

Mr. Hill said that New York's process is a little different than New Hampshire's. In 2008, New York did business with over 9,000 generators and over 60,000 shipments. It collects forms from generators and TSDFs,

retains images of the data from these forms, and loads the data into the manifest annual reporting system. It performs 112 QA/QC validations. He expressed concern that the national system would not have all of the validations that New York has. It follows up with an enforcement letter for delinquent copies from the TSDF. It collects information annually, both electronically and in hard copy. The data received in hard copy are keypunched and it reviews incoming raw data by cross-checking them with manifest data. It resolves data discrepancies and collects and sends the data to EPA every other year.

The facilitator then presented EPA's straw man approach for integrating e-Manifest with Biennial Reporting. This straw man is designed to generate discussion from the participants on strengths and weaknesses, aspects of the straw man approach that would or would not work, and options for improvement.

The overarching concept of integrating the two systems is to centralize data collection. Under the straw man, all information that is needed for manifests, shipping papers, and the Biennial Report would be entered into a single database, eliminating redundancy. The manifest and Biennial Report forms have many common fields, so it will save time to enter the data only once. The system would package data as needed for each reporting function. If someone did not enter all of the Biennial Report data upfront, EPA envisions that templates could be used to update all information entered by a particular user. Supplemental data required only by the Biennial Report could be entered at any time before the Biennial Report deadline. EPA also recognizes that this automated approach would not work for everyone, in particular for generators who manage their waste on-site and those that continue to use the paper manifest forms.

The process could work in the following manner:

1. A generator or designated TSDF would begin the process by entering shipment data. Data needed for a manifest would be required at that point. Supplemental Biennial Report data could be entered then or later. The system would extract data needed for the manifest, and the rest would remain in the database until needed for the Biennial Report.

2. The transporter then could make corrections to the e-Manifest as necessary, and the generator would receive notification of any changes made.

3. The TSDF would receive the shipment, note discrepancies and make data corrections. Again, corrections would trigger an automatic notification to the generator.

4. The state would review the data and reconcile any differences between the generator and the TSDF.

   These four steps are essentially parallel to the manifest system as it exists today, except that notifications today are not generated automatically.

5. The TSDF and generator then would enter any Biennial Report data not already in the system, and sign off on the data.

6. States would extract data needed for the Biennial Report and other state reporting. The state also would collect data for the Biennial Report from paper manifests and from waste generated/managed on-site.

Ms. Wright asked if Safety-Kleen checks to ensure that identification (ID) numbers are correct on manifests, because they are site-specific. Mr. Appelt replied that they check ID numbers against the list of EPA ID numbers and addresses, and if it is not a match, the entry is flagged for follow-up with the customer.

Ms. Wright stated that the system should integrate into RCRAInfo, both to verify ID numbers at each step and for summary data to be accessible within RCRAInfo.

Mr. Appelt stated that he felt it was important for states to agree on a standard report. States have many additional data elements that are not captured on the manifest. With an electronic system, they could add whatever data elements are needed to meet those state requirements. However, it would be helpful if everything could be standardized.

Ms. Wright commented on the standardization of data, saying that some states have regulations that require additional data. She asked if Mr. Appelt thought that all manifests should collect all data that any state wants. Mr. Appelt said the system should be flexible enough to accommodate specific requirements. Ideally, states should agree on what needs to be collected upfront. It would be advantageous to avoid additional reporting later.

Mr. Westcott stated that some of the desired information can be obtained using the EPA Notification Form.

The facilitator stated EPA's belief that, ideally, an integrated system would accommodate information that all of the states need. States would be able to collect additional information to meet individual state requirements.

Mr. Appelt suggested that some fields may be user defined. He also noted that some states require users to report density, and if that field were there upfront, it would be helpful. Ms. Wright asked if Mr. Appelt wanted to allow for state differences. Mr. Appelt replied that the system should be flexible enough to accommodate differences among states.

Some participants expressed concern about whether the transporter can correct manifest data and agreed that EPA will need to address this.

Ms. Martin stated that New Mexico does not collect manifest data during the year, but collects exception reports.

Ms. Wright stated that at least half the states do not collect manifest data, based on prior surveys. They currently satisfy their data needs from annual/biennial reports.

The facilitator explained EPA's assumption that, ideally, data entry would need to happen only once for a waste because the information would be retained in the system for future shipments. Another assumption is that e-Manifest would be a "smart system," or a system that knows what information is required for each type of document and each state's particular needs. In addition, this system would allow users to make data corrections, be informed of changes to their data, review data, and provide official sign-off for the Biennial Report. The facilitator asked if this "smart system" could work for users and if there were any other requirements that users would need.

A participant asked how the data would be displayed if there were corrections. Mr. LaShier responded that this element would be figured out later when the contractor develops the system. The importance of ensuring that the system tracks corrections carefully was noted.

Mr. Redes said that with the paper manifest, if there are corrections, the corrected and original data are both available. He asked if an electronic system would know that there is old and new data. He also asked how the system would handle corrections made by multiple people. A

response was provided that each electronically signed copy would be retained as part of the workflow. There still would be an image of that original data. How it would be displayed would depend on when the change was made. There will need to be a clear way to document changes.

Ms. Weddle commented that not all waste that needs to be in the Biennial Report may have been shipped during that reporting year. A response was provided that these wastes will have to be handled differently in the system, like waste that is managed on-site.

Ms. Yeager stated that South Carolina does not collect manifest data. It has a state quarterly reporting system that collects the data that it uses in-house and translates biennially to EPA. She asked if EPA is considering moving the Biennial Reporting System (BRS) into the e-Manifest system. She noted that it took a lot of time and resources to move the BRS into RCRAInfo and it would be a shame to waste that investment. A response was provided that EPA was not considering moving the BRS into the e-Manifest at this time.

Ms. Michel asked if states would be able to upload manifest data at any time for their own use. A response was provided that states that were associated with the shipment could access this information at any time. All users and states would have access to their own data.

Ms. Dooley stated that generators and TSDFs describe waste differently and use different measurements on their forms. She asked how EPA would deal with that in an electronic system. A response was provided that generators often estimate quantities differently on manifests than TSDFs do. These differences should be flagged in the system and reconciled.

The facilitator clarified that the straw man assumes that users can enter Biennial Report data at any time before signing off on them. The assumption is that this burden would be minimized if all data entry is done at the outset, and using pull down menus and other tools would simplify the detailed Biennial Report entry process. For example, detailed codes could help with the consistency issues the group had discussed.

Ms. Wright asked whether states would be able to access confidential business information (CBI). Mr. LaShier stated that there is a pending issue of whether any data can be claimed as CBI, so EPA does not know the answer at this point.

The facilitator stated that EPA assumes the system should be able to receive data entered directly by users in preparing the electronic manifest, data uploaded by paper manifest users, and supplemental Biennial Report data provided from users. However, generators who manage on-site must submit their Biennial Report data separately because there would be no manifest data. The facilitator asked what complications exist for dealing with generators or other users not using the electronic system for manifests.

Mr. Westcott asked for clarification on EPA's straw man assumption about waste managed on-site. A response was provided that it would be preferable for generators who manage waste on-site to enter data into the national data system even though they are not required to submit manifest data. This was seen as a good feature to build into an integrated system in order to give a complete national picture.

Ms. Wersterfer asked how the supplemental data not found on the manifest would be merged with the rest of the Biennial Report data. She also pointed out that discrepancies can exist between what is generated versus what is shipped. Mr. LaShier responded that differences between what is generated and what is shipped can be reconciled within the system. Ms. Wersterfer said that this burden is being put on the generators in this process. They will have to enter in the manifest data, plus the supplemental data not on the manifest, sometimes for hundreds of manifests. Mr. LaShier responded that generators could set up a profile for repeat waste shipments. Common data elements would be entered into the profile only once, then applied to appropriate shipments. The generator would not be required to conduct subsequent data entry if the same waste and transporter are used repeatedly. Ms. Wersterfer also asked who would track the reconciliation of discrepancies. Mr. LaShier responded that this will be determined as the system is built. In addition, EPA will need to find a way to capture on-site management data. EPA does not know yet how the two sets of data (data on waste generated vs. waste shipped) will be combined because the Agency has not decided how the system will work. Also, EPA is aware that there are many one-time generators who will need to continue to use the paper system.

The facilitator asked for input on an appropriate timeframe for correcting manifest data in the system. The facilitator pointed out that the Land Disposal Restrictions (LDRs) establish a one-year time limit for the storage of untreated waste. This could be a useful point of reference when thinking about an appropriate time limit.

Mr. Appelt said that his company needs to be able to make corrections long after the waste is accepted. Not all waste sent to a TSDF is checked immediately. Ms. Aldrich said that she did not see a reason to set a time limit on corrections. She has made corrections to data over two years old. Mr. Redes agreed that there should not be a limit. He has made corrections going seven years back. If data are reviewed for errors before they are entered into the system, there really would not be corrections per se, just adjustments. There might also be disputes from generators, who will say that their waste was not hazardous waste even though it was shipped using a hazardous waste manifest. Mr. Westcott stated his belief that there should be a time limit to make corrections, such as 90 days or some such. Mr. Dennen stated that people send in corrections months and years after a shipment and that one year would be a reasonable time limit.

A participant asked if the system would collect information on state-regulated, non-hazardous waste. A response was provided that the system was intended to collect information for both state-only and federal wastes.

Ms. Barnes commented that it may be time to rethink the Biennial Report information as being the amount of waste shipped (or managed on-site via separate reporting) instead of the amount generated. A response was provided that waste generated and waste shipped should be viewed as a single stream of waste.

Mr. Conlon said that, as a transporter, he would want the TSDF to sign off on the waste at the time of delivery, rather than at acceptance. A response was provided that the waste will still have a "received" status in the system, and a separate status for "accepted" after the waste has been processed.

Ms. Wright asked how data from conditionally exempt small quantity generators (CESQGs) would be treated. She said that TSDFs now are asked to submit summary data by state for all waste received from generators without ID numbers. She asked if, under the straw man, they would submit manifest-level data upon receipt or still do summary pages at the end of the year. A response was provided that these issues still need to be worked out and that the system would be flexible enough to address a range of possible options.

The facilitator stated EPA's assumption that a detailed data entry format could allow entry of state-specific waste codes, as well as more than six waste codes to comply with the Biennial Report. Additionally, states

would have access to all data for quality monitoring and other state-specific purposes. The facilitator asked if there are any special considerations for state waste codes.

Ms. Canter stated that she wanted to make sure that states that require annual reporting could continue to implement them when the e-Manifest is in operation.

Ms. Wright stated that Illinois has a requirement to manifest Illinois "special waste," which is a broad category. These wastes do not have a code, but they need to be described. That could be a problem with the e-Manifest. A response was provided that there will need to be an open field to enter that description instead of a code. There could also be a code for special waste, and then a field to enter the description.

The facilitator said that EPA is aware of the need to adjust the level of detail on a number of Biennial Report data elements that are not required on manifests, including source codes, waste form codes, the number of waste codes, and waste descriptions. She asked for comment on these data elements and any others that EPA has overlooked.

Ms. Canter stated that waste quantity is an important issue as well as the point at which the material is weighed. In addition, waste minimization will be added to the Biennial Report. Ms. Aldrich stated that specific gravity and a common unit of measurement are important considerations to address in the system.

A participant asked about state waste codes. A response was provided that the system would accommodate state waste codes.

A participant asked how it affects the Biennial Report if wastes are received and accepted in different years. A response was provided that EPA is aware of that issue, and it will need to be addressed.

The facilitator asked if it would be useful to have a detailed profile in the system so that information needed for the manifest could be generated automatically. Mr. Lesser replied that there may be an enforcement issue with that automatic generation. There may be a greater possibility of error if somebody could just check a "same waste as last time" box. Another participant stated that profiles would allow users to group manifests, which they have not been able to do before. This would be a useful feature. Other participants agreed with this comment.

A participant asked how the system would deal with wastes that are manifested, but do not need to be included in the Biennial Report. A response was provided that the system could be structured such that it would know what to include and not include in the Biennial Report based on waste codes.

The facilitator discussed EPA's assumptions on waste quantification, stating that there are several approaches to quantification and an electronic system would not change that. Fields will be developed in the system to accommodate different types of data inputs, but there will also be tools in the system to make quantification easier. The facilitator asked what quantification issues need to be resolved prior to integrating the e-Manifest and Biennial Report.

Ms. Canter raised the issue of the container weight and identified questions that she has had about how waste handlers determine waste volumes and weights for reporting purposes, *e.g.*: are the quantities reported by generators and TSDFs from the original manifest, are those numbers from weighing, do those weights include the container, or are those calculated weights based on some arbitrary density that has been selected? She suggested that It is a mixed bag. She emphasized the importance of getting wastes weighed so that generators and TSDFs can agree more frequently than they do now.

Another participant stated that some wastes can gain or lose moisture during shipment, so sometimes the difference between a generator's and TSDF's copy is justifiable.

A participant asked which copy the states accept now as accurate when there are discrepancies between the generator and TSDF copies of the manifest. A response was provided that the states use the data provided by the TSDF and that the states recommend that generators do not include the weight of the container in reporting their waste quantity.

Mr. Green said that he would want to see a "waste received" field added to the manifest to be completed by the TSDF.

Mr. Redes asked who would provide training to users on the new system. A response was provided that EPA is aware of the need for training and would address this at the appropriate time.

Mr. Lesser asked if on-line training would be an appropriate delivery method, or if training should be conducted in person. A participant

responded that on-line training would be good for a lot of people, but administrators may need more.

The facilitator stated EPA's assumption that many organizations have made significant technology investments in their current systems, which need to be considered. She asked if there are technology-related problems that EPA could help mitigate.

A representative from New York stated that the state just implemented an integrated computer system, so it will have to rewrite a lot of software to integrate with a federal system. A lot of states will be in a money crunch. EPA could mitigate these problems by providing additional funding. Several other state representatives stated that it will take a few years and additional money to make the integration work. Ms. Canter said that the system would save Ohio money because the state does not have a system in place. The state has to QC everything already, so this will be easier. Mr. Redes said that a component of his state's system includes public reports. It would be important for the public to continue to have that access under the Freedom of Information Act (FOIA).

The facilitator explained two options for rolling out the national system. One option is a phased approach with the basic e-Manifest system implemented first, followed by the Biennial Report capabilities. Another option is a non-phased approach where the entire system (including the Biennial Report capabilities) is implemented at once. She asked which option appeals to participants.

Ms. Canter suggested a third option, where waste receipts are collected for the Biennial Report first, followed by the shipment data from generators. She wants to ensure that the system is correctly processing waste received information before addressing wastes generated. Mr. Appelt stated that he would rather not see any phasing, but at worst, EPA should implement Ms. Canter's approach.

A participant stated that the system should be phased in, as it will take a long time to fix system errors. Mr. Hill stated that he would rather not have any phasing. EPA proposed an electronic manifest system in 2001, so industry already has missed out on several years of potential benefits. Users will be changing their technology systems constantly if it is phased in over time. Mr. Westcott and Mr. Hurley agreed with Mr. Hill that there should not be a phase in. Mr. Redes stated that phasing is preferable because it would help to ensure that the core e-Manifest system is operating effectively and minimize delays. Ms. Anderson stated that she could agree with the no phasing concept as long as doing so does not

create a longer than necessary delay in being able to put the system into use.

A participant asked if, during a phased option, there would be double reporting. A response was provided that there would not be double reporting. Users would complete an electronic manifest, but the Biennial Report activities would remain unchanged until the phase in. Further, users would not be required to complete a paper manifest in addition to an electronic manifest for a shipment.

Ms. Wersterfer asked how states would get the combined data that they need if half of the information would be in the e-Manifest, but because it is being phased in, there would not be all of the information needed for the Biennial Report. A response was provided that users would have to complete the Biennial Report separately, as they do now, until both systems go on-line.

The facilitator stated EPA's assumptions that the e-Manifest cannot accommodate conflicting data. EPA assumes that the generator would be notified of changes to data and be given a timeframe for responding to changes. If the generator fails to respond within the given timeframe, the system would default to the TSDF data. The facilitator asked how common unresolved discrepancies are and how the system should deal with them.

A participant responded that unresolved discrepancies are not very common; many get resolved. Another participant stated that the timeframes for responding to discrepancies are enumerated in the regulations. Ms. Canter said that, in regard to the Biennial Report, it would not be acceptable for the system to default to the data provided by the TSDF if the generator fails to respond to a discrepancy.

Ms. Weddle noted that the timeframes stipulated in the regulations for discrepancies are for reporting them, not resolving them.

The facilitator stated EPA's assumption that some state programs would review and make corrections to system data and the system would have an audit trail of changes. In addition, waste handlers would sign off on their data before the data would be included in the Biennial Report. The facilitator asked what else must be done to ensure that the data are acceptable for Biennial Report purposes.

A participant expressed a desire to make sure a TSDF is not listing a management method code it is not permitted to use. Another

participant stated that some states run many checks on Biennial Report data that could be incorporated in the system. A response was provided that EPA imagined that states would play the same role that they have been playing in terms of reviewing data and the system would serve as a recording tool.

A participant stated that after a state reviews the data and makes corrections, it would like to upload that information in bulk. States do not want to have to correct and upload one manifest at a time.

A participant asked if the e-Manifest would collect Biennial Report information related to EPA's recent rulemakings on academic laboratories and the definition of solid waste. A response was provided that sites could report on these rules in the e-Manifest.

The facilitator stated a concern that waste passing through an intermediate facility (*e.g.*, storage facility) risks being double-counted for purposes of the Biennial Report. She asked how the system should deal with this risk. A response was provided that source code G61 could be used to identify wastes that are not generated on-site.

The facilitator asked the participants to provide information on which aspects of the system would be especially helpful or detrimental and which aspects would provide savings or negative impacts. She also asked for feedback on alternative approaches to the straw man in whole or in part.

Mr. Baker replied that the big challenge for industry is dealing with the patchwork of state reporting regulations and the Biennial Report. It would be easier to deal with the state regulations if they were aligned with the Biennial Report first.

Ms. Wright stated that Illinois has more generators in the special waste category than the hazardous waste category.

David Green stated that this system would potentially allow his organization to eliminate 95 percent of its state reporting requirements.

Ms. Dooley stated that there are a lot of generators who are one-time only and will not be aware of or use the e-Manifest who will need to file their Biennial reports on paper.

A participant stated that Texas generators and TSDFs would carry the brunt of these changes. As things are now, the Texas state program creates the Biennial Report for its generators and TSDFs.
The facilitator asked participants to e-mail alternatives to the straw man and additional suggestions or comments to emanifest@icfi.com. She also asked participants to send examples of how they coordinate reporting requirements and estimates of incremental or reduced costs under the straw man.

The facilitator stated that the final webinar will be held on June 23, 2009. It will address practical expectations for system performance and anticipated stakeholder benefits from an electronic data system.

III. Comments Raised about e-Manifest Post-Webinar

1. On June 10, Mr. Conlon e-mailed EPA asking if the Agency is coordinating with the Department of Transportation (DOT) on its plans for electronic shipping papers.

EPA appreciates the question and is clarifying that it intends to meet with DOT in late June to discuss DOT's efforts to automate the shipping paper and coordination with the e-Manifest. In addition, please note that EPA and DOT communicate periodically to keep apprised of each other's relevant program initiatives generally. In particular, DOT attended the November 2008 e-Manifest kickoff meeting and was invited to the subsequent webinars.

2. Following are two sets of comments on the presentation slides used during Webinar 3. The comments were e-mailed to EPA after the webinar. EPA thanks the commenters for their input.

Comments from Paula Canter of the Ohio Environmental Protection Agency (received June 11)

Slide 10 – Integration Process

6. States, second bullet: Isn't it an incorrect assumption at this point to say states collect paper manifest Biennial Report (BR) data? Was the intent of the bullet to say states would continue to collect paper-based BR (mentioned on Slide 13)? This assumption requires discussion. If all the waste received at TSDFs is present in the e-Manifest database, by virtue of being transmitted electronically or entered by the system's contractor, there would be no need for states to collect any paper-based BR if US EPA requires BR filers to use the integrated system. It is rare for people to not

have Internet access now, even if it means going to the public library. If LQGs were required to use the Internet to finalize and certify their report, it would mean significant savings for government and an increase in quality. Paper-based reports are very time-consuming to enter and review because required information is frequently omitted. That problem can be prevented by software edits. If you want state buy-in from the BR perspective, having a burden reduction would be a significant plus.

Note that in the straw man proposal, the states' role becomes oversight and QA/QC for the BR program, not collection. An additional bullet for this point would have been good for this slide.

A suite of reports will need to be added to the e-Manifest system to help reviewers flag potential problems. States with experience comparing manifests to BR (like New York) will be a good resource in this effort. A value might be in the lookup table but that doesn't mean it's the correct one in context. Ohio has validations that compare BR data on different forms where there are relationships between the various elements.

Slide 11 - Assumptions

Yes, I think it is realistic to combine data entry and a "smart system" for all three purposes makes sense. However, this is going to be very complex. Trying to do everything at once from the initial launch may be too much, although I don't see any showstoppers with translating manifest data into Waste Receipt (WR) form data from the beginning as long as some data quality issues are worked out.

Other Requirements:

1. Some states collect more data than what is on the federal forms, or may not collect optional items (*e.g.* not all states have state-specific waste codes). The software would have to take this into account.

2. Some states collect fees with the reports.

3. About half the states have a cycle that is more frequent than biennial (annual or quarterly).

4. Will have to figure out how to handle foreign handlers that import waste to the US, or US generators that export to foreign countries. Currently, the EPA Office of Enforcement and Compliance Assurance's database of this information is inaccessible to the states

and even to most other US EPA staff. The recommended integration of this database into RCRAInfo never happened. States need the information in their own databases in order to produce accurate analysis of waste generation and management and have come up with their own ways to handle this. Border states are more affected by this than others. US EPA can't stick their head in the sand and point to the rules as an excuse to not have a unique way to identify foreign generators and TSDFs.

a. Importers: Although the federal instruction booklet says that the US entity that is taking responsibility for the waste is to be listed as the generator of it in the BR, that masks who the true foreign generator is and also inflates the generation amount. Waste not even generated on US soil becomes identified as such. Ohio's Annual Report (AR) program assigns unique "FC" foreign handler identification numbers to be used only on the reporting forms. This allows us to distinguish the source of the foreign waste. Ohio TSDFs list all customers in the same way on the WR regardless of whether they are in the US or a foreign country and this is easier for them.

b. Exporters: In Ohio's forms, waste shipped to foreign receivers is tracked by the use of the FC numbers. We also assign FC numbers to foreign transporters. Removing exports from the GM form as US EPA's instructions direct would eliminate Ohio's ability to have this information. Some Ohio generators ship some or all of their waste to Canada; if we did not track it we would not have information on their activities.

5. The HSM biennial reporting will probably need to be added to the software, assuming some will still be LQGs or a TSDF.

6. BR Rule changes may be needed. Elements have been added or removed from the forms over time without any change to the rules. Software edits force the states to collect some data that is not explicitly mentioned in the rules; US EPA says that if OMB approves it then they can collect it, regardless of the rules. Some information requested in the rule has been omitted from the forms by US EPA but still may be collected by a state. An example of this is the reporting of end of year storage in permitted units by TSDFs, as required by the facility report rule. Illinois and Ohio both collect this data.

7. In order for the manifest data to be used for BR, all HW receiving facilities must submit data to the e-Manifest system, regardless of whether they have a permit. Ohio has three receivers that are not required to have a RCRA permit although they receive HW from off-site generators. They do not submit WR forms but have LQGs and TSDFs as part of their customer base. This is not unique to Ohio. US EPA doesn't have a national comprehensive list of such facilities although a review of the national GM form shipment data would be one way to identify them.

8. There must be a lookup table that associates receiving facilities with specific management method codes for quality control purposes. States have observed generators listing incorrect management method codes for TSDFs on the GM forms, even after the manifest was revised for the TSDF to list the applicable code. Some TSDFs list a code for a method that they don't even perform on-site. They may be listing the code for the management that will occur when the waste is re-shipped to another receiver. This is contrary to what the rule requires.

Slide 13 - Assumptions

Question: Should facilities that manage on-site have the option of reporting through the integrated waste management system? YES. Nearly all the on-site managers also ship waste off-site and would have some manifest data anyway. Note that in terms of quantity, more HW is managed on-site than is shipped off-site.

Slide 14 - Assumptions

In regard to timeframes for corrections, note that corrections to BR data can happen at any time down the road. For example, while preparing the following cycle's submission they may find an error in the past report. In the interest of quality and historical trend analysis, the states have accepted these off-cycle changes but there was no ability to forward them to US EPA. The occurrence of these may decrease due to the integrated nature of the proposed system, but it would be unwise to prevent them from ever happening.

For analysis purposes, deciding what version of the data to use could be an issue. The original values on a manifest as written by the generator are the most likely to be inaccurate. The TSDF's operating log information (corrected manifest data) is more accurate. The best data would be the final information reconciled between the generator and the TSDF, either

after the TSDF receives the waste or as part of the BR. When there are discrepancies between what the generator said they shipped versus what the TSDF said they received, the TSDF's waste receipt information is usually (but not always) the correct value. There remains the possibility that the TSDF's manifest information may change as a result of a generator challenging it later.

Slide 15 - Assumptions

State access - I am assuming we would have access in the same manner as we use RCRAInfo: we either use the system's interface or we access the tables directly using SecuRemote and do downloads or run our own ad hoc reports.

Slide 16 – BR Data Elements

There is a new Waste Minimization Code being added to the GM form for 2009.

Please note that I do not want to see TSD facilities providing the descriptions, source code, or form code for their customers. The generators are best able to describe their waste using the codes and are responsible for characterizing their waste in accordance with the rules. It is also possible for the source code to change for a waste stream in certain circumstances.

Slide 17 – Integration Issues for Paper Manifests

Collecting profile information with a number and text description would be very useful. Three reasons are:

1. The DOT descriptions are not specific enough for our purposes. They don't indicate in plain English what the waste is and why it was generated.

2. It would help the generators and TSDFs be assured that they are talking about the same waste according to the lingo they've established between them.

3. It would allow the states and EPA to group the same waste stream for analysis and potentially for the purpose of populating the GM forms. The source, form, and waste codes alone are not enough to identify a unique waste, although that's one way you could attempt it as a starting point.

Note that if a generator ships the same waste to more than one receiver, there will be multiple profile numbers for that waste and the generator would need to link them in the software.

Slide 18 - Quantification

As acknowledged, quantification is a big issue for US EPA to tackle. Changes to rules and/or to permits may even be necessary. While we must be flexible with what we require, the methods used also need to be consistent so that we can make accurate comparisons. Generators are very likely to accept a TSDF's quantity revisions if the waste has been weighed. States have observed significant discrepancies based on the generators and TSDFs employing different densities to convert volume to weight; the larger the volume, the larger the discrepancy.

Container weights may or may not be included in the BR data now. The current US EPA BR Special Instructions state that for lab packs, if the container is disposed or treated with the waste, the weight should be included in the quantity. One can assume that this should apply for non-lab packs as well; this instruction was created to collect information for capacity assurance planning purposes. However, I'm not certain that the rules contain any such language.

The e-Manifest database must include a verified quantity and not just the quantity originally written on the manifest.

Slide 19 - Technology

Ohio EPA is currently developing our own Web-based annual report software for the regulated community to use due to the Cross-Media Electronic Reporting Regulation (CROMERR) requirements. We are using federal funds to do that. Although we'd likely abandon this if e-Manifest is launched with BR integration, we didn't have a choice if we wanted to continue to collect AR data electronically using the Internet. Our system for managing the data the regulated community submits is an old PowerBuilder Oracle application that we are hanging onto until we find out what is going to happen with e-Manifest and BR integration. We'd like to replace it with a Web-based application but it would not be prudent to initiate that if it will become redundant.

Slide 20 - Phasing

Phasing versus no phasing: This is going to be a very complex system. It would be prudent to make sure that the basics are working well before generators are required to do their BR using this data. States should be

given one cycle's opportunity to compare manifest-derived WR data to traditional generator-submitted GM forms before we support the whole BR process based on TSDF data.

That said, we could offer the option for generators to work on their report using this system the first time around and then require it for all in the next cycle. States that have annual or quarterly systems could speed this up. If we remain mired in paper we're not going to have the gains in government efficiency that we need to justify these sweeping changes.

Slide 21 - Discrepancies

What if the TSDF and the generator agree to disagree, *i.e.* cannot come to an agreement on disputed manifest data? What is the final version in this scenario? Not all generators file BR.

"If generator fails to respond within timeframe, system will default to TSDF data." Reading this prompted me to wonder what happens if manifest data indicates that a generator was a LQG but they do not submit a BR? We have a significant number of one-time LQGs each year nationally and when Ohio sends out violation letters for failure to file, the majority of them are one-time or short-term generators. The system will need a report to identify violation candidates. These generators may be using paper-based manifests but would have to use the system to do their BR if we don't allow paper BR. I'd prefer we don't allow paper BR due to resource concerns.

Slide 22 - QA

Coordinating corrections: For BR, we'd continue to operate as we do now, contact the generator and/or TSDF to resolve issues. However, there may be things each organization does differently due to the nature of the system and its capabilities, such as deciding who makes the corrections in the shared system or relying on automatically generated e-mails prompted by database changes.

Data quality: States have extensive knowledge in this area for both manifests and BR and we can provide information on what we do. Reports will need to be created which pinpoint potential problem areas.

Slide 23 – Intermediate Facilities

Distinguishing between "offerors" and generators: BR source code G61 identifies TSDFs that trans-ship. The generation amount should be 0 if G61 is reported on a GM form.

Other Issues

How RCRAInfo integrates with e-Manifest and dealing with ID issues.

1. States spend a lot of time on both BR and manifests with ID corrections on waste receipt data. TSDFs are likely to be spending time on this process as well. Ohio has encouraged TSDFs to use Envirofacts for verifications and therefore it is important that ORCR impress upon OEI that it is very important to keep the RCRAInfo updates on a regular monthly schedule. If the TSDFs had read access to the handler information in RCRAInfo that would be a significant advancement.

2. Not all states are loading into RCRAInfo all the IDs that are used on manifests. A big chunk of temporary IDs are not available in the national database. Example: Massachusetts lets CESQGs self-assign their own ID numbers using their phone number and they are not in a database to my knowledge.

3. During the call, it was mentioned that TSDFs may report aggregate CESQG data by state on the WR forms. In Ohio they have the choice of aggregation or reporting each customer individually. Most do the latter, which is what I prefer because we do not have manifest tracking. It may not matter for an integrated system since the underlying data is available, unless US EPA wants to enforce consistency across the states and build aggregation into the WR form population.

4. Just because the generator claims to be a CESQG doesn't mean they are one. (We've seen cases where the customer should have had an ID based on quantity and the TSDF lets that slip by.) Also, they may have an ID number and not use it on the manifest.

Some generators already use commercial software to manage their manifest data, which may be integrated with other tracking functions. They may wish to have a conversion program rather than abandon their current software. It would be a good idea to have discussions with vendors of these systems at some point.

I would not recommend that we shift our generator focus from analyzing generation to substituting shipment numbers. While most generators do ship everything they generate, there are a small number in Ohio that accumulate waste on-site and then manage it on-site in a method that doesn't require a permit. US EPA's BR instructions are silent on whether this on-site management should be reported when the waste is accumulated prior to treatment but a permit is not required. Ohio's position is that both the generation and the on-site management should be reported and that we have the authority to collect this. Just collecting the generation amount with no additional information as to the waste's fate would not provide the data we need for program planning and is contrary to the "tracking from cradle to grave" concept.

Comments from Michael Hill of the New York State Department of Environmental Conservation (received June 18)

I. General Comments on Integrating the e-Manifest System with Biennial Reporting

NYSDEC believes that integrating the national e-Manifest system with biennial reporting is a very good idea. It is no longer necessary to review the needs and justifications of moving from a decentralized paper based data system to a centralized national electronic data system. Work efficiencies, enhanced functionalities and improved data quality have all been realized from the construction of electronic systems for decades.

Concerning the e-Manifest system's entire data set; the system needs to be able to do a total electronic data dump. This will be required for FOIA and for general state use.

II. Specific Comments on e-Manifest System Webinar #3 PowerPoint Presentation

Page 8: The running list of waste shipment data that are required for Biennial Reporting that are not on the current manifest form are - form code, source code, NAICS code and specific gravity/density. If EPA makes additional data requirements, such as the proposed waste minimization code, they should be added to this list.

Page 9, Item 2, Transporters: RCRA 263.21(b)(1) states "If the hazardous waste cannot be delivered in accordance with paragraph (a) of this section because of an emergency situation other than rejection of the waste by the designated facility, then the transporter must contact the

generator for further directions and must revise the manifest according to the generator's instructions." Other than this emergency situation, NY is unaware of any data that the transporter, strictly acting as just a transporter, is allowed to change or modify on the current manifest form. If there happens to be a piece count difference discovered at the time of waste pickup, the generator should correct the piece count on the form, not the transporter, as the generator is responsible for completing this information on the form. We believe that a transporter acting on behalf of the generator is a different situation, and is allowed to change any data in boxes 1 through 17. Said another way, only the individual signing in Box 15 is allowed to change data in boxes 1 through 15.
Page 9, Item 3, TSDF: TSDF's do not actually make corrections to quantities, they note discrepancies. The noting of discrepancies is the function of Box 18 on the manifest form. Specifically, suppose a generator shipped an estimated 1000 pounds of waste and the TSDF determined that the actual weight received was 1200 pounds. The TSDF does NOT correct the "1000" in Box 11 on the manifest form. Instead they note a discrepancy in Box 18 by marking the "Quantity" check box and writing the more accurate value of "1200" under the Quantity check box. These two data values need to be tracked by the national system, either stored as different fields of information or stored in a data change log.

Page 10, State: Any data review done by States will likely require the ability to download waste shipment data applicable to their state. Once the reviewer has completed their job the data will have to be uploaded. This uploaded data will have to be re-evaluated by the e-Manifest system, creating various system updates and data change notifications.

Page 11, Assumptions: In NY, after the Department receives a manifest that has been signed by a TSDF, no one changes any "quantity data" ever, other than DEC employees. "Quantity data" are any data that directly affect the quantity of hazardous waste shipped. This includes specific gravity (which we collect in NY if provided), quantity, unit of measure and waste codes. Before we make any changes to these fields we require proof. Generally, this means hard-copy weight tickets from the TSDF or waste quality data from a lab. We would like to see the e-Manifest system work this way also.

Further, data changes should have no time limits. It is always better to have more accurate data. The bigger question is who can change the data?

Page 12, Biennial Report Assumptions: There was some discussion on manifest data being accurate enough for biennial reporting. It should be noted that there is always waste which is generated in December of a year and shipped the following January. For these waste shipments, only the actual time of waste generation is pertinent to the biennial report.

Page 14, Question, Appropriate timeframes for "Received" and "Accepted" shipment corrections: NY has a concern that handlers may have too much ability to modify data. We feel strongly that any e-Manifest system needs to restrict the ability to make changes to final data to only state or federal staff. NY proposes that electronic data is final data when the responsible entity electronically signs-off on the data. In New York with the current paper-based manifesting, data is final once DEC receives a paper copy of the manifest form. Prior to us receiving the paper, various handlers may change data or notice discrepancies. But once we receive the form, all handlers must justify further data changes.

NY desires an electronic notification for any data changes that are made which affect the quantity of hazardous waste shipped or its final disposition. We run fee programs based upon this data.

It should be made clear that this data change timing issue is concerned only with manifest shipping data. As discussed during the presentation, biennial reporting data can be added or changed anytime prior to final reporting.

Page 15, Questions, State Waste Codes: It should be noted that different states have different data formats for their State Waste Codes. In the March 4, 2005 Federal Register (Volume 70, Number 42, page 10790) EPA wrote "States may develop additional waste codes in response to today's rule in order to designate wastes which qualify for state specific exemptions, wastes which are subject to a differential waste management fee based on how a waste is managed, or wastes which are subject to other state-specific management conditions." As such, some states have five-character waste codes while other states have single-character waste codes.

Concerning State access to system data, NY desires access to all data regarding waste shipments that originate or terminate in New York.

Page 18, Quantification of Waste: There are primary and secondary validation checks that may be applied to waste quantification. In a primary sense, the waste's weight must not exceed that which may legally go down a highway and/or over a bridge. Volumetric quantities can be

converted to weight with known or assumed specific gravities. In NY we check these excessively large shipments to confirm they are on a rail car or barge. In a secondary sense, the quantity can be compared to the Container Number and Container Type information. A thousand gallons of waste has never been delivered in one drum, although it may have been delivered in a tanker truck. Reversing that logic, one gallon of waste has never been delivered in 10 drums either. These are soft (bypassable) data checks that frequently help locate keypunch errors.

There is a general need for a smaller Unit Of Measure. Currently the smallest quantity, one pound, is very large for tracking pharmaceuticals and all acute hazardous wastes. We recommend the adoption of grams as an acceptable Unit Of Weight.

Page 19, Technology: Since January 2006, NY has spent $1,400,000 on the creation of a data system (named eSMART) that tracks manifests data, annual report data and data for a fee program called Special Assessments. This system will have to be modified to allow data exchange between it and the new national system. Also, since many functions of our eSMART system will be duplicated by the national system, a full review of all logic and business rules will need to be performed. Financial assistance from EPA would help make these tasks possible.

Page 20, Project Phases: NY strongly supports a single-phase project. e-Manifesting has been a federal topic for eight years. It will be a few more years before there is a production e-Manifest system for the nation. Integrating biennial data in multiple phases will only postpone the great benefits of a coordinated manifest-biennial reporting system.

Page 21, Discrepancies: Many generators estimate their waste shipment quantities, while receiving facilities typically measure waste quantities. It is for this reason that we always change the generator's quantity to the TSDF's quantity (only if a quantity discrepancy is noted in Box 18).

In New York, quantity discrepancies on manifests are not uncommon, and are regularly resolved between the generator and the TSDF, which is to say that they are not contested. Unresolved discrepancies are incredibly rare. The NYSDEC offers its engineering, enforcement and legal services to companies that can not, between themselves, resolve quantity discrepancies.

Further, it should be mentioned that it is never appropriate to include the container's weight in Box 11 on the manifest form. This may become an issue for TSDF's that charge disposal fees based upon total weight.

Page 23, Intermediate TSD Facilities: There is a concern that waste manifested from an intermediate facility may be incorrectly counted twice. There is no way to determine this with the data requirements on the existing manifest form. Hence, if this concern is to be addressed, an additional data field will be required. It is Source Code G61 for biennial reporting.

Note: EPA is preparing the summary of Webinar 4 and will post it when it is completed.

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