***Internal Summary of the June 18-20 E-Manifest Advisory Board Meeting***

* EPA developed a White Paper (<https://www.epa.gov/sites/production/files/2019-06/documents/white_paper_advisoryboardjune2019.pdf>) ahead of the meeting that address the most pressing problem to be addressed in the meeting discussions: Low Adoptions rates for the electronic manifest (fully electronic and hybrid) in the first year of operation
  + Less than 1 percent of all manifests received from July 2018 through April 2019 were electronic
  + The vast majority of submissions (75%) have been in the form of data plus image
  + Other key statistics:
    - Percentage of manifests that accompanied state-only waste – 35%
    - Total number of waste handlers involved in paper and fully electronic manifesting under federal and state manifest programs:
      * Generators 210,849
      * Transporters 4,204
      * Receiving Facilities 624
      * Percentage of those generators, transporters and receiving facilities using fully electronic manifests
      * Generators ~0%
      * Transporters ~0%
      * Receiving Facilities 10%
  + *Much higher adoption rates are necessary to realize the benefits of more timely and accurate data and significant cost savings associated with the e-Manifest program*
* EPA understands the disincentives it faces:
  + “With the paper manifest, the actual signature process performed by waste handlers at the time of waste custody transfers is simple to accomplish as it only requires signing the manifest”
  + “By contrast, some implementations of electronic reporting require pre-enrollment, registration, identity proofing, passwords, challenge questions to answer while signing the form, network access at the time of signature, and post-signature monitoring of out-of-band email addresses for evidence of unauthorized activity involving one’s electronic signature”
  + “These differences are magnified by the fact that every manifest requires at least three signatures (generator, transporter, and receiving facility) to be executed sequentially over the course of a hazardous waste shipment”
  + They recognize the presence of intermediate handlers makes this process even more complex
  + “The signatures that occur in the field are executed at locations such as loading docks and transport vehicles. These locations do not always have the network access that some system architectures require to receive and verify electronic signatures in real time”
  + “The generators and transporters have also told EPA that they experience significant turnover with their personnel, which makes more challenging the training, registration, and identity proofing methods involved in the current e-Manifest system architecture”
  + “Adding to these challenges, the Department of Transportation (DOT) still requires that one hard copy of the hazmat shipping document be carried on transport vehicles to facilitate emergency response”
* EPA Solutions
  + New functionalities planned for development in the coming months:
    - Industry
      * Transporter and Broker to create a manifest
      * In-transit shipping changes
      * Notifications and bulk signature enhancements
      * 3rd-party signature intake (see White Paper for limitations faced)
    - State Users
      * Additional state reports
      * Ability for state user to correct a manifest
  + EPA is examining how to navigate the requirements established by CROMERR (see White Paper) for producing legally defensible chain-of-custody of shipments
    - EPA has already evaluated and approved an approach whereby digitizing pads can be used to collect offline signatures from individuals who are not already known to the electronic reporting system
    - EPA has received and is considering how it might use suggested approaches by the user community including: user registration without creating the standard CDX user account; biometrics/3rd party applications; an external authorization process for receiving facilities and rail; and off-line signatures
    - The current state of play for each of these options is described in the White Paper: *some options for alternate user registration and external authorizations already exist and options for approval of others can be submitted and approved*
    - *Estimated times for approval of CROMERR alternatives have been reduced to 1-3 months* (See White Paper for the discussion)
* Key comments from State of Minnesota Board Member (Joshua Burman) at the meeting’s conclusion (none of the others provided conclusion comments at the end)
  + Endorsed EPA work on alternatives
  + EPA should push for data plus image submissions and eliminate the scan-only option
  + Sunset the hybrid manifest when reasonable alternative exist and notify entire listserv when that assessment is reached
  + Autolinking: automatic invitation from EPA into electronic system after a hard copy submission rather than requiring receiving facilities to push this with their customers
  + Weekly compilation of manifests received by TSDs to generators to allow for reasonable process for exception reports
  + Force elimination of paper reports and make some adjustments that help that goal:
    - Review signature requirements that may stand in the way of electronic signatures (e.g., waste minimization certification)
    - Eliminate the need for 3 copies of the manifest for the TSD/Transporter; this would require TSDs to agree to electronic record for all shipment (some TSDs currently will only agree to electronic records only when 100% of their customers are electronic)