

**APPENDIX N**

---



**APPENDIX N**  
**GUIDELINES FOR REVIEW OF TRU WASTE**  
**GENERATOR/STORAGE SITE WASTE STREAM PROFILES**

- 1.1.1 *DOE Site Name:* Must contain two-letter site code
- 2.1.1 *Unique HQ WS ID:* Formerly called the MWIR ID. Same as 8.2.2. The HQ ID must begin with the two digit site identifier, followed by the letter "W", then a three digit number (i.e., RF-W012). If this number does not directly relate to the WTWBIR WS ID, verify that this is the intent of the site.
- 2.1.2 *Site WS ID:* Should contain the site identifier(s) used by the sites, but does not necessarily have to be filled in
- 2.1.3 *Waste Stream Name:* Name filled in should correlate well with answers to Description (3.1), and Final Waste Form Group (8.2.3)
- 2.1.4 *PSTP WS ID:* Should only be in the following format DD-WXXX, also make sure this is a MTRU stream in the answer to 3.2.1
- 2.3.1 *Waste Stream Source Description:* Make sure the description is consistent with the source category chosen in the next question (2.3.2)
- 2.3.2 *Source Category:* Make sure that only one of these is checked and it is consistent with the response to 2.3.1.
- 2.3.3 *Generator Site Name:* Must contain two letter code. If this is different from the answer to 1.1.1, then do a reality check to make sure that it is not an error. In most cases this should be the same as 1.1.1
- 3.1  *Waste Stream Description:* Description should correlate well with answers to Waste Stream Name (2.1.3), and Final Waste Form Group (8.2.3)
- 3.2.1 *Waste Type:* Only TRU or MTRU should be checked
- 3.2.2 *Waste Handling:* Only one of the choices should be checked (either CH or RH)
- 3.2.6 *Radionuclide:* Make sure that the "typical" value reported does not fall outside of the reported "range". Check for consistency of reporting format to make sure that there is enough information to report the data in terms of Ci/m<sup>3</sup> if necessary. Also, look out for any obvious errors or typos (e.g., Ca instead of Cs). Check with Appendix A of the WTWBIR

Revision 1 to determine if the radionuclides are reasonable (i.e., curie counts are similar or the same) in comparison to the radionuclides presented in this section.

3.4.3 *EPA/State Regulated Contaminant List:* If the response to 3.2.1 is MTRU, then there should be some EPA codes here, otherwise this field should be empty. Check if Appendix VIII information is listed. If none is listed check cover letter or comment section. If no information from site, call site to check why Appendix VIII is not listed (i.e., whether it is not listed due to lack of information or whether the site knows for sure that these are not present in the waste).

3.4.4 thru  
3.4.6.2 Make sure that only one option is filled for each question, and the responses are consistent.

## 8. **WIPP Transuranic Waste Baseline Inventory Report (WTWBIR) Data Requirements**

8.1 **Provide the WTWBIR WS ID numbers that apply to this MWIR WS**

8.1.1 thru 8.1.# *WTWBIR ID:* The WTWBIR ID should start with the site identifier (see Figure 1-1 of the WTWBIR Rev. 1, or contact Eric Krieger for new sites). The next code is generally a "W", "M", or "T". The WTWBIR ID can be any number series generated by the sites. The only requirement is that it begin with the two digit site identifier.

8.2 **WTWBIR Level of Information (Repeat this section for each WTWBIR WS ID listed in section 8.1)**

8.2.1 *WTWBIR WS ID:* Make sure that the number entered is the same as that which was entered in 8.1.



*WTWBIR WS Name:* Use the appropriate site-specific, unique descriptive identifier for a TRU waste stream. (i.e., metal debris, rubber/plastic debris, heterogeneous debris, HEPA filters, etc).

8.2.2 *Unique HQ WS ID:* Formerly called the MWIR ID. Same as 2.1.1. The HQ ID must begin with the two digit site identifier, followed by the letter "W", then a three digit number (i.e., RF-W012). If this number does not directly relate to the WTWBIR WS ID, verify that this is the intent of the site.

**MWIR WS Name:** Use the appropriate site-specific, unique descriptive identifier for a MWIR (HQ WS ID) waste stream. (i.e., metal debris, rubber/plastic debris, heterogeneous debris, HEPA filters, etc).

**WS Difference Comments:** Comments relating to the differences between the MWIR WS and the WTWBIR WS. In addition, any comments relating to subdivision of the MWIR WS.

8.2.3 **Final Waste Form Group:** *Select the one that best represents the overall WS.* The Final Waste Form Group should be consistent with the *Typical Waste Material Weights for Final Waste Form* in section 8.2.15.1.14 or 8.2.15.x.10 (as applicable) and section 3.1, Waste Stream Description. The reviewer needs to check to see if the Final Waste Form Group entry is consistent with the Updated Waste Matrix Code Group Numbers supplied for this review. If the Final Waste Form Group entry is NOT consistent with the Updated Waste Matrix Code Group Numbers, then verify with the site.

8.2.4 **Does the WTWBIR WS contain residues?** Yes or No should be checked. Sites expected to have residues per the Defense Nuclear Facilities Safety Board Recommendation 94-1 include Rocky Flats, Savannah River Site, Richland (Hanford), Los Alamos, and Lawrence Livermore

8.2.5 **WTWBIR WS source:** Only one category should be checked. If any of the major sites check anything other than defense, you will need to verify this with the site.

8.2.6 **NMVP ID:** Use the content code from Table 2-1 Vol. II of the NMVP. Not all WS's will have a NMVP ID. NA should be used if the WS does not appear in the NMVP. If something is filled in for the NMVP ID, there should also be an entry for the TRUCON Code in section 8.2.7. If the NMVP ID is left blank, check the NMVP Table 2-1, or verify with the site. For RH TRU waste this should be blank or N/A.

8.2.7 **Applicable TRUCON codes:** TRUCON codes are obtained from the content code assessments sections of the DOE document TRUPACT-II Content Codes (TRUCON) and are listed by major site. (Chapters 12 to 21 in Rev. 4). More than one TRUCON code may apply. Assignment should be made at the time of waste stream profile review. The TRUCON Code should correlate to the entry to Final Waste Form Group, section 8.2.3. If the category is left blank, check the TRUCON Codes (Chapters 12 to 21 in Rev. 4), or verify with the site. Table 3 "Content Codes for Newly Generated Waste" and Table 4 "Content Codes for Retrievably Stored Waste" are included as an attachment to verify these codes.



8.2.8 *Applicable Final IDC's*: Site specific code. Can be cross referenced with TRUCON content code. This may be left blank.

8.2.9 *WTWBIR WS same as MWIR WS from section 2.3*: Check with section 2.3 for information on MWIR WS. If yes, get the information from section 2.3 and 2.3.2. If No, section 8.2.9.1 should contain information relative to the differences between the WTWBIR WS and the MWIR WS (i.e., major inputs into the process, any reactions that changed materials in the process and any additions to the waste stream which resulted in the final waste form). If no further treatment is planned before shipment to WIPP, the description should be consistent with the Final Waste Form Group in section 8.2.3 and the distribution of waste material parameters to be provided in section 8.2.15.1.14 and any of 8.2.15.x.10 (as applicable). Section 8.2.9.2 should have only one category checked. There may be entries that contain more than one category. These types of entries should be explained in 8.2.9.1.

8.2.10 *WTWBIR WS same as MWIR WS from section 3.4.3*: Check with section 3.4.3 for information on MWIR WS. If yes, get information from 3.4.3. If no, continue to section 8.2.10.1; EPA/State Regulated Contaminant List should contain a subset of the same information as 3.4.3. If the response to section 3.2.1 is MTRU, then there should be some EPA codes in section 8.2.10.1, otherwise this field should be blank. Check if Appendix VIII information is listed. If none is listed check cover letter or comment section. If no information from site, call site to check why Appendix VIII is not listed (i.e., whether it is not listed due to lack of information or whether the site knows for sure that these are not present in the waste).

8.2.11 *Concentrations greater than 1 wt% in WTWBIR WS*: (Data for SNL); Nitrates, Sulfates, Phosphate. If the answer in the Y/N column is Y, but no estimated concentrations are provided, a description of the source of the component and the reasons for the unknown estimated concentrations should be provided. If a blank or an N is shown for a waste stream such as a solidified sludge, make a note for review of data for the WTWBIR team, there may be a need to verify with the site.



8.2.12 *Container types and size that are used/have been used/will be used to STORE this WTWBIR WS* (e.g., Drum/55 gal; Box/4 x 4 x 7 ft; Box 112 ft<sup>3</sup>; SWB). This information defines current and planned containers and will be used in section 8.2.14. All TRU waste whether it is to be sent to WIPP or not should be included in this table. Column one: Current container type/size Column two: Are radionuclides the same as section 3.2.6 for the MWIR (Yes/No); If yes, the information will be used for the WTWBIR. If NO is entered, reasons for difference should be in



column three; Column three: Comments should be on each container listed in column one that do not have the same radionuclides as those used in section 3.2.6.

If the isotopic distribution is the same but the concentration is different, the value by which to multiply the concentrations in section 3.2.6 should be provided to obtain the concentrations for the given container in the comment field. If the isotopic distribution is different it should be indicated in the comment field for the given container type and a table should be provided (similar to the table in section 3.2.6) for the container type and WTWBIR WS ID. This table should be on hard copy or in the comment section of 8.2.14.1.14.3.4.

#### 8.2.13

*Selection of container types that will be used to ship the final forms of the WTWBIR WS to WIPP (indicate all that apply).* All waste that is planned for disposal in the WIPP repository should be included in this table. Column two: Select type(s) that will apply to final waste form container (Y/N); The container(s) picked by the generator/storage site will be used in section 8.2.15; Column three: Are radionuclides the same as section 3.2.6 for the MWIR (Yes/No). If Y is entered, WTWBIR will use the information provided in section 3.2.6. If N is entered, the differences should be described in the appropriate comment section for the given container; e.i., Section 8.2.15.1.12 (55 gallon drum), 8.2.15.2.8(SWB), 8.2.15.3.8 (SWB used to overpack 55 gallon drums), 8.2.15.4.8 (RH canister), 8.2.15.5.8 (RH canisters used to overpack 55 gallon drums), or section 8.2.15.6.8 (RH canisters used to overpack 30 gallon drums). A table should also be provided (similar to the table in section 3.2.6) for the container type and WTWBIR WS ID. This table should be on hard copy or in the comment section of 8.2.14.1.14.3.4.

If the isotopic distribution is the same but the concentration is different, the value by which to multiply the concentrations in section 3.2.6 should be provided to obtain the concentrations for the given container in the comment field.

#### 8.2.14

*Current container information for this WTWBIR WS:* This section requests information for the waste in the current or planned packaging. WIPP prefers that a separate 8.2.14.x (where x represents a separate package type defined by 1, 2, etc.) Where this is not appropriate, multiple answers are permitted for some questions to accommodate the situation. This entry should be consistent with 8.2.12.

8.2.14.1



Current container type/size: This field should contain a description of the container as to size or volume. It should not indicate the composition of the container (e.g., steel). Examples of entries that might occur:

Under "Drum" - 55 gallon; 30 gallon; 83 gallon

Under "SWB" - nothing

Under "Box" - the size (4x4x7) or name of box (#6)

Under "SWB Overpack" - nothing

This information should have automatically transferred from section 8.2.12. Check to make sure that the entry is consistent with 8.2.12.

8.2.14.1.1

Material of construction (check all that apply): This should indicate the composition of the container in the current container field, section 8.2.14.1. E.g., Carbon steel, Stainless steel, Wood etc. If "Other" is used, check to sure that it is reasonable. If more than one entry is made (e.g., carbon steel and stainless steel), then the response should include enough information to match the *Type/Size* of the container to its material of construction.

8.2.14.1.2

Liner types (check all that apply): This should indicate the type of liner used in the packaging of the current container field, section 8.2.14.1. E.g., Bag, Rigid liner, etc. NOTE: If only some containers include internal shielding or liners, a description of the approximate percent of containers with shielding or liners should be in the comment section 8.2.14.1.14.3.4. If more than one entry is made (e.g., bag and rigid liner), then the response should include enough information to match the *Type/Size* of the container to its liner type.

8.2.14.1.3

Liner material (check all that apply): This should indicate the composition of the liner(s) in the Liner type field used in the current container(s). E.g., Cement, HDPE, Plastic. etc. If "Other" is used, check to make sure that it is reasonable. If the section is left blank, make a note for the WTWBIR team to review this data and determine if there is a need to verify the lack of information with the site. If more than one entry is made (e.g., HDPE and fiberboard), then the response should include enough information to match the *Type/Size* of the container to its liner material.

8.2.14.1.4

Internal volume (payload volume) per container in m<sup>3</sup>: NOTE: If the current container type includes several sizes, an average internal volume for all the sizes will be used (e.g., 55 gal + 30 gal + 70 gal = 52 gal X 0.0038 m<sup>3</sup>/gal = 0.20 m<sup>3</sup>). NOTE: Check to make sure that the entry

is reasonable (a single 55 gallon drum has an internal volume of 0.208 m<sup>3</sup>). For containers, expect the volume of the container. For tanks expect the volume of the waste.

- 8.2.14.1.5 *Estimated percent (%) containers less than 350 lbs/container (required only for drums):* The total for % containers less than 350 lbs/container and 8.2.14.1.6, % containers between 350 and 500 lbs/container, should add up to less than or equal to 100% for the drums. NOTE: The comment section 8.2.1.4.1.14.3.4 may be used for additional information or to clarify these estimates.
- 8.2.14.1.6 *Estimated percent (%) containers between 350 and 500 lbs/container (required only for drums):* The total for % containers between 350 and 500 lbs/container and 8.2.14.1.5, % containers less than 350 lbs/container, should add up to less than or equal to 100% for the drums. NOTE: The comment section 8.2.1.4.1.14.3.4 may be used for additional information or to clarify these estimates.
- 8.2.14.1.7 *Estimated percent (%) containers less than 23 Pu-239 fissile gram equivalents (required only for drums):* The total for % containers less than 23 Pu-239 fissile gram equivalents and 8.2.14.1.8, % containers between 23 and 200 Pu-239 fissile gram equivalents, should add up to less than or equal to 100% for the drums. NOTE: The comment section 8.2.1.4.1.14.3.4 may be used for additional information or to clarify these estimates.
- 8.2.14.1.8 *Estimated percent (%) containers with between 23 and 200 fissile gram equivalents (required only for drums):* The total for % containers with between 23 and 200 fissile gram equivalents and 8.2.14.1.7, % containers less than 23 Pu-239 fissile gram equivalents, should add up to less than or equal to 100% for the drums. NOTE: The comment section 8.2.1.4.1.14.3.4 may be used for additional information or to clarify these estimates.
- 8.2.14.1.9 *Number currently in storage:* The number of containers currently in storage at the site for this WS should be listed (the date of this inventory should be provided in 8.2.14.1.10).
- 8.2.14.1.10 *Date of this inventory:* Date of the inventory provided in section 8.2.14.1.9. The WTWBIR WS data should be consistent with the data provided in the MWIR section. NOTE: WTWBIR prefers that all sites use 12/31/94 as the inventory date so that the inventory data are consistent.





8.2.14.1.11 *Total number of these containers projected from date of inventory to end of 2022 (Do not include the current inventory):* Should not include the current inventory reported in 8.2.14.1.9. This should only include the number of projected containers from the date in 8.2.14.1.10 to the year 2022. This total should be the same as the added sum for 8.2.14.1.12. NOTE: These are annual inventories, NOT cumulative.

8.2.14.1.12 *Estimated TRU waste generation by numbers of containers: Includes WTWBIR WS ID and the container type/size:* For the years 1993, 1994 and perhaps 1995 should NOT include containers from section 8.2.14.1.9. A zero (0) should be entered for these first few years for containers currently in storage. The entry should be a projection of the number of containers for that given year only. A zero should also be entered for a year that has no projections (i.e., No waste is generated for that year). These entries should add up to total number provided in section 8.2.14.1.11. WTWBIR will use this total and the volume provided in 8.2.14.1.1 to calculate total volumes. Check the comment field in column three for any pertinent comments. Information for the calculations of total volume may also be provided in the comment section 8.2.14.1.14.3.4.

8.2.14.1.13 *WAC revision 3 certifiability:* This section contains questions about the certifiability of the current containers based on WIPP WAC revision 3. Check the comment field in section 8.2.14.1.14.3.4 for any additional information or qualifications.

8.2.14.1.13.1 *Is all of this current container type/size certifiable to WIPP WAC revision 3?:* YES indicates that 100% of the containers are certifiable and the reviewer should skip down to section 8.2.14.1.14. If NO is checked, continue through the rest of section 8.2.14.1.13.

8.2.14.1.13.2 *What percent (%) of these containers are non-certifiable?:* The % provided should be greater than zero and less than 100.

8.2.14.1.13.3 *For containers not certifiable to WIPP WAC revision 3, is it due to:*  
Section 8.2.14.1.13.3.1 Repackaging or  
Section 8.2.14.1.13.3.2 Treatment.

8.2.14.1.13.3.1 *Repackaging required?:* If NO is entered the reviewer should skip down to section 8.2.14.1.13.3.2, Treatment required. If YES is entered continue to section 8.2.14.1.13.3.1.1.

8.2.14.1.13.3.1.1 *What percent (%) of the non-certifiable containers require repackaging?:*  
The percent should be greater than zero and less than or equal to 100.



- 8.2.14.1.13.3.1.2 *WAC repackaging requirement table:* Column two should have Y/N provided for each repackaging cause. Column three should provide the % of containers affected (0 - 100). The % affected could range from 0 to 100 % and does not necessarily add up to 100 (i.e., The total of column three can be less than, greater than, or equal to 100%). The % affected should be zero if an "N" is entered in column two.
- 8.2.14.1.13.3.2 *Treatment required?:* If NO is entered the reviewer should skip down to section 8.2.14.1.14, TRAMPAC Certifiability. If YES is entered continue to section 8.2.14.1.13.3.2.1
- 8.2.14.1.13.3.2.1 *What percent (%) of the non-certifiable containers require treatment?:* The percent should be greater than zero and less than or equal to 100.
- 8.2.14.1.13.3.2.2 *WAC treatment requirements table:* Column two should have Y/N provided for each treatment cause. Column three should provide the % of containers affected (0 - 100). The % affected could range from 0 to 100 % and does not necessarily add up to 100 (i.e., The total of column three can be less than, greater than, or equal to 100%). The % affected should be zero if an "N" is entered in column two.
- 8.2.14.1.14 *TRAMPAC certifiability:* This section contains questions about the certifiability of the current containers based on TRAMPAC compliance. Check the comment field in section 8.2.14.1.14.3.4 for any additional information or qualifications.
- 8.2.14.1.14.1 *Is all of this current container type/size certifiable to TRAMPAC (shipment to WIPP via TRUPACT-II)?:* YES indicates that 100% of the containers are certifiable and the reviewer should skip down to section 8.2.15 as applicable. If NO is checked continue through the rest of section 8.2.14.1.14.
- 8.2.14.1.14.2 *What percent (%) of these containers are non-certifiable?:* The % provided should be greater than zero and less than or equal to 100.
- 8.2.14.1.14.3 *For containers not certifiable to TRAMPAC (shipment to WIPP via TRUPACT-II) is it due to:*  
Section 8.2.14.1.14.3.1 Filters/liner vents or  
Section 8.2.14.1.14.3.2 Repackaging required.  
Section 8.2.14.1.14.3.3 Treatment required.
- 8.2.14.1.14.3.1 *Filters/liner vents?:* If NO is entered the reviewer should skip down to section 8.2.14.1.14.3.2, Repackaging required. If YES is entered continue to section 8.2.14.1.14.3.1.1.

8.2.14.1.14.3.1.1 *What percent (%) of the non-certifiable containers require filters/liner vents?:* The percent should be greater than zero and less than or equal to 100.

8.2.14.1.14.3.2 *Repackaging required?:* If NO is entered the reviewer should skip down to section 8.2.14.1.14.3.3, Treatment required. If YES is entered continue to section 8.2.14.1.14.3.2.1.

8.2.14.1.14.3.2.1 *What percent (%) of the non-certifiable containers require repackaging?:* The percent should be greater than zero and less than or equal to 100. NOTE: If "Not in TRUCON" is the only entry identified in section 8.2.14.1.14.3.2.2, then repackaging may not actually be necessary and a zero (0) may be entered in the percent (%) of non-certifiable containers that require repackaging.

8.2.14.1.14.3.2.2 *TRAMPAC repackaging requirements table:* Column two should have Y/N provided for each repackaging cause. Column three should provide the % of containers affected (0 - 100). The % affected could range from 0 to 100 % and does not necessarily add up to 100 (i.e., The total of column three can be less than, greater than, or equal to 100%). The % affected should be zero if an "N" is entered in column two. If "Not in TRUCON" is the only entry identified, then repackaging may not actually be necessary. The reviewer needs to verify with the site. If this only requires the authorization to get a TRUCON code, identify this for the WTWBIR database personnel.

8.2.14.1.14.3.3 *Treatment required?:* If NO is entered the reviewer should skip down to section 8.2.14.2 or 8.2.15 as applicable. If YES is checked continue to section 8.2.14.1.14.3.3.1.

8.2.14.1.14.3.3.1 *What percent (%) of the non-certifiable containers require treatment?:* The percent should be greater than zero and less than or equal to 100.

8.2.14.1.14.3.3.2 *TRAMPAC treatment requirements table:* Column two should have Y/N provided for each treatment cause. Column three should provide the % of containers affected (0 - 100). The % affected could range from 0 to 100 % and does not necessarily add up to 100 (i.e., The total of column three can be less than, greater than, or equal to 100%). The % affected should be zero if an "N" is entered in column two.



8.2.14.1.14.3.4 *Current Container comments:* This section may contain comments for any of the sections in 8.2.14.

**8.2.15 Final waste form container information for this WTWBIR waste stream**

This section requires information for all the waste in WIPP compliant form. Therefore "**FINAL WASTE FORM**".

8.2.15.1 *Container Type: The final waste form is or will be packaged in WIPP acceptable 55 gallon drums?:* NO indicates that another container type will be used for this WTWBIR WS. The reviewer should skip all sections in 8.2.15.1 and go to 8.2.15.2. Yes indicates that for this WTWBIR WS some but not necessarily all containers used will be 55 gal drums.

8.2.15.1.1 *Container material (check all that apply):* This should indicate the composition of the container for the waste in final form. E.g., Carbon steel, Stainless steel, etc. If "Other" is used, check to be sure that it is reasonable.

8.2.15.1.2 *Liner type (check all that apply):* This should indicate the type of liner used in the packaging of the final waste container. E.g., Bag, Rigid liner, etc. NOTE: If only some containers include internal shielding or liners, a description of the approximate percent of containers with shielding or liners should be in the comment section 8.2.15.1.12.

8.2.15.1.3 *Liner material (check all that apply):* This should indicate the composition of the liner(s) in the Liner type field used in the final waste container. E.g., Cement, HDPE, Plastic. etc. If "Other" is used, check to sure that it is reasonable. If the section is left blank, make a note for the WTWBIR team to review this data and determine if there is a need to verify the lack if information with the site. If more than one entry is made (e.g., HDPE and fiberboard), then the response should include enough information to match the *Type/Size* of the container to its liner material.

8.2.15.1.4 *Internal volume (payload volume) per container in  $m^3$ :* This is provided by the form electronically.  $0.208 m^3$

8.2.15.1.5 *Estimated percent (%) containers less than 350 lbs/container:* The total for % containers less than 350 lbs/container and 8.2.15.1.6, % containers between 350 and 500 lbs/container, should add up to less than or equal to 100%. NOTE: The comment section 8.2.15.1.12 may be used for addition information or to clarify these estimates.





- 8.2.15.1.6 *Estimated percent (%) containers between 350 and 500 lbs/container:* The total for % containers between 350 and 500 lbs/container and 8.2.15.1.5, % containers less than 350 lbs/container, should add up to less than or equal to 100%. NOTE: The comment section 8.2.15.1.12 may be used for addition information or to clarify these estimates.
- 8.2.15.1.7 *Estimated percent (%) containers less than 23 Pu-239 fissile gram equivalents:* The total for % containers less than 23 Pu-239 fissile gram equivalents and 8.2.15.1.8, % containers between 23 and 200 Pu-239 fissile gram equivalents, should add up to less than or equal to 100%. NOTE: The comment section 8.2.15.1.12 may be used for addition information or to clarify these estimates.
- 8.2.15.1.8 *Estimated percent (%) containers with between 23 and 200 fissile gram equivalents:* The total for % containers with between 23 and 200 fissile gram equivalents and 8.2.15.1.7, % containers less than 23 Pu-239 fissile gram equivalents, should add up to less than or equal to 100%. NOTE: The comment section 8.2.15.1.12 may be used for addition information or to clarify these estimates.
- 8.2.15.1.9 *Number currently in storage:* The number of containers currently in storage at the site for this WS should be listed (the date of this inventory should be provided in 8.2.15.1.10).
- 8.2.15.1.10 *Date of this inventory:* Date of the inventory provided in section 8.2.15.1.9. The WTWBIR WS data should be consistent with the data provided in the MWIR section. NOTE: WTWBIR prefers that all sites use 12/31/94 as the inventory date so that the inventory data are consistent.
- 8.2.15.1.11 *Total number of these containers projected from date of inventory to end of 2022 (Do not include the current inventory):* Do not include the current inventory from section 8.2.15.1.9. This should only include the number of projected containers from the date in 8.2.15.1.10 to the year 2022. This total should be the same as the added sum for 8.2.15.1.13. NOTE: These are annual inventories, NOT cumulative.
- 8.2.15.1.12 *Comments (55 gallon drum):* Any additional comments or clarification of information for sections 8.2.15.1 (55 gallon drums) should be included in this comment field.
- 8.2.15.1.13 *Estimated rates of TRU waste generation (numbers of containers):* *Incudes WTWBIR WS ID and the container type/size (55 gallon drums):* For the years 1993, 1994 and perhaps 1995 should NOT include containers from section 8.2.15.1.9. A zero (0) should be entered for

these first few years for containers currently in storage. The entry should be a projection of the number of containers for that given year only. A zero should also be entered for a year that has no projections. These entries should add up to total number provided in section 8.2.15.1.11. WTWBIR will use this total and the volume provide in 8.2.15.1.4 to calculate total volumes. Check the comment field in column three for any pertinent comments. NOTE: Waste reported in section 8.2.14 for which the sites do not have plans or schedules for putting the waste in WIPP compliant form and WIPP acceptable containers or the schedule is beyond the year 2022, the sites should estimate the WIPP compliant form and WIPP acceptable containers to be used and should have placed the waste in the year 2022 and state in the comment section that the site has no schedule or that the schedule is beyond the year 2022. A description of the schedule should also be included.

8.2.15.1.14 *Typical waste material weights for Final Waste Form ( $\text{kg}/\text{m}^3$ ); WTWBIR WS ID: and Container type (55 gallon drum) included:* The information entered here should be in  $\text{kg}/\text{m}^3$ . The fields for iron-base metal and plastic do not include the outer container and the rigid liner and or liner bags. The container and the liner information is placed only in the fields for packaging material. The average, lower limit, and the upper limit should be reasonable. Check to make sure that they are in the right column.

8.2.15.2 *Container Type: The final waste form is or will be packaged in WIPP acceptable Standard Waste Boxes?:* NO indicates that another container type will be used for this WTWBIR WS. The reviewer should skip all sections in 8.2.15.2 and go to 8.2.15.3. Yes indicates that for this WTWBIR WS some but not necessarily all containers used will be Standard Waste Boxes.

8.2.15.2.1 *Container material (check all that apply):* This should indicate the composition of the container for the waste in final form. E.g., Carbon steel, Stainless steel, etc. If "Other" is used, check to be sure that it is reasonable.

8.2.15.2.2 *Liner type (check all that apply):* This should indicate the type of liner used in the packaging of the final waste container. E.g., Bag, Rigid liner, etc. NOTE: If only some containers include internal shielding or liners, a description of the approximate percent of containers with shielding or liners should be in the comment section 8.2.15.2.8.



- 8.2.15.2.3 *Liner material (check all that apply):* This should indicate the composition of the liner(s) in the Liner type field used in the final waste container. E.g., Cement, HDPE, Plastic, etc. If "Other" is used, check to make sure that it is reasonable. If the section is left blank, make a note for the WTWBIR team to review this data and determine if there is a need to verify the lack of information with the site. If more than one entry is made (e.g., HDPE and fiberboard), then the response should include enough information to match the *Type/Size* of the container to its liner material.
- 8.2.15.2.4 *Internal volume (payload volume) per container in m<sup>3</sup>:* This is provided by the form electronically. 1.89 m<sup>3</sup>
- 8.2.15.2.5 *Number currently in storage:* The number of containers currently in storage at the site for this WS should be listed (the date of this inventory should be provided in 8.2.15.2.6).
- 8.2.15.2.6 *Date of this inventory:* Date of the inventory provided in section 8.2.15.2.5. The WTWBIR WS data should be consistent with the data provided in the MWIR section. NOTE: WTWBIR prefers that all sites use 12/31/94 as the inventory date so that the inventory data are consistent.
- 8.2.15.2.7 *Total number of these containers projected from date of inventory to end of 2022 (Do not include the current inventory):* Do not include the current inventory from section 8.2.15.2.5. This should only include the number of projected containers from the date in 8.2.15.2.6 to the year 2022. This total should be the same as the added sum for 8.2.15.2.9. NOTE: These are annual inventories, NOT cumulative.
- 8.2.15.2.8 *Comments (Standard Waste Boxes):* Any additional comments or clarification of information for sections 8.2.15.2 (Standard Waste Boxes) should be included in this comment field.
- 8.2.15.2.9 *Estimated rates of TRU waste generation (numbers of containers): Includes WTWBIR WS ID and the container type/size (Standard Waste Boxes):* For the years 1993, 1994 and perhaps 1995 should NOT include containers from section 8.2.15.2.5. A zero (0) should be entered for these first few years for containers currently in storage. The entry should be a projection of the number of containers for that given year only. A zero should also be entered for a year that has no projections. These entries should add up to total number provided in section 8.2.15.2.7. WTWBIR will use this total and the volume provide in 8.2.15.2.4 to calculate total volumes. Check the comment field in column three for any pertinent comments. NOTE: Waste reported in





section 8.2.14 for which the sites do not have plans or schedules for putting the waste in WIPP compliant form and WIPP acceptable containers or the schedule is beyond the year 2022, the sites should estimate the WIPP compliant form and WIPP acceptable containers to be used and should have placed the waste in the year 2022 and state in the comment section that the site has no schedule or that the schedule is beyond the year 2022. A description of the schedule should also be included.

8.2.15.2.10

*Typical waste material weights for Final Waste Form ( $\text{kg}/\text{m}^3$ ); WTWBIR WS ID; and Container type (Standard Waste Boxes) included:* The information entered here should be in  $\text{kg}/\text{m}^3$ . The fields for iron-base metal and plastic do not include the outer container and the rigid liner and or liner bags. The container and the liner information is placed only in the fields for packaging material. The average, lower limit, and the upper limit should be reasonable. Check to make sure that they are in the right column.

8.2.15.3

*Container Type: The final waste form is or will be packaged in WIPP acceptable Standard Waste Boxes (SWB) used to overpack 55 gallon drums?:* NO indicates that another container type will be used for this WTWBIR WS. The reviewer should skip all sections in 8.2.15.3 and go to 8.2.15.4. Yes indicates that for this WTWBIR WS some but not necessarily all containers used will be Standard Waste Boxes (SWB) used to overpack 55 gallon drums.

8.2.15.3.1

*Container material (check all that apply):* This should indicate the composition of the container for the waste in final form. E.g., Carbon steel, Stainless steel, etc. If "Other" is used, check to be sure that it is reasonable.

8.2.15.3.2

*Liner type (check all that apply):* This should indicate the type of liner used in the packaging of the final waste container. E.g., Bag, Rigid liner, etc. NOTE: If only some containers include internal shielding or liners, a description of the approximate percent of containers with shielding or liners should be in the comment section 8.2.15.3.8.

8.2.15.3.3

*Liner material (check all that apply):* This should indicate the composition of the liner(s) in the Liner type field used in the final waste container. E.g., Cement, HDPE, Plastic, etc. If "Other" is used, check to make sure that it is reasonable. If the section is left blank, make a note for the WTWBIR team to review this data and determine if there is a need to verify the lack of information with the site. If more than one

entry is made (e.g., HDPE and fiberboard), then the response should include enough information to match the *Type/Size* of the container to its liner material.

- 8.2.15.3.4 *Internal volume (payload volume) per container in m<sup>3</sup>*: This is provided by the form electronically. 1.89 m<sup>3</sup>
- 8.2.15.3.5 *Number currently in storage*: The number of containers currently in storage at the site for this WS should be listed (the date of this inventory should be provided in 8.2.15.3.6).
- 8.2.15.3.6 *Date of this inventory*: Date of the inventory provided in section 8.2.15.3.5. The WTWBIR WS data should be consistent with the data provided in the MWIR section. NOTE: WTWBIR prefers that all sites use 12/31/94 as the inventory date so that the inventory data are consistent.
- 8.2.15.3.7 *Total number of these containers projected from date of inventory to end of 2022 (Do not include the current inventory)*: Do not include the current inventory from section 8.2.15.3.5. This should only include the number of projected containers from the date in 8.2.15.3.6 to the year 2022. This total should be the same as the added sum for 8.2.15.3.9. NOTE: These are annual inventories, NOT cumulative.
- 8.2.15.3.8 *Comments (Standard Waste Boxes (SWB) used to overpack 55 gallon drums)*: Any additional comments or clarification of information for sections 8.2.15.3 (Standard Waste Boxes (SWB) used to overpack 55 gallon drums) should be included in this comment field.
- 8.2.15.3.9 *Estimated rates of TRU waste generation (numbers of containers): Includes WTWBIR WS ID and the container type/size (Standard Waste Boxes (SWB) used to overpack 55 gallon drums)*: For the years 1993, 1994 and perhaps 1995 should NOT include containers from section 8.2.15.3.5. A zero (0) should be entered for these first few years for containers currently in storage. The entry should be a projection of the number of containers for that given year only. A zero should also be entered for a year that has no projections. These entries should add up to total number provided in section 8.2.15.3.7. WTWBIR will use this total and the volume provide in 8.2.15.3.4 to calculate total volumes. Check the comment field in column three for any pertinent comments. NOTE: Waste reported in section 8.2.14 for which the sites do not have plans or schedules for putting the waste in WIPP compliant form and WIPP acceptable containers or the schedule is beyond the year 2022, the sites should estimate the WIPP compliant form and WIPP acceptable containers to be used and should have placed the waste in the year 2022



and state in the comment section that the site has no schedule or that the schedule is beyond the year 2022. A description of the schedule should also be included.

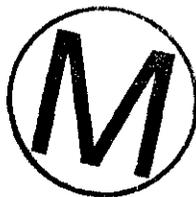
8.2.15.3.10 *Typical waste material weights for Final Waste Form ( $\text{kg}/\text{m}^3$ ); WTWBIR WS ID; and Container type (Standard Waste Boxes (SWB) used to overpack 55 gallon drums) included:* The information entered here should be in  $\text{kg}/\text{m}^3$ . The fields for iron-base metal and plastic do not include the outer container and the rigid liner and or liner bags. The container and the liner information is placed only in the fields for packaging material. The average, lower limit, and the upper limit should be reasonable. Check to make sure that they are in the right column.

8.2.15.4 *Container Type: The final waste form is or will be packaged in WIPP acceptable RH canisters?:* NO indicates that another container type will be used for this WTWBIR WS. The reviewer should skip all sections in 8.2.15.4 and go to 8.2.15.5. Yes indicates that for this WTWBIR WS some but not necessarily all containers used will be *RH canisters*.

8.2.15.4.1 *Container material (check all that apply):* This should indicate the composition of the container for the waste in final form. E.g., Carbon steel, Stainless steel, etc. If "Other" is used, check to be sure that it is reasonable.

8.2.15.4.2 *Liner type (check all that apply):* This should indicate the type of liner used in the packaging of the final waste container. E.g., Bag, Rigid liner, etc. NOTE: If only some containers include internal shielding or liners, a description of the approximate percent of containers with shielding or liners should be in the comment section 8.2.15.4.8.

8.2.15.4.3 *Liner material (check all that apply):* This should indicate the composition of the liner(s) in the Liner type field used in the final waste container. E.g., Cement, HDPE, Plastic. etc. If "Other" is used, check to make sure that it is reasonable. If the section is left blank, make a note for the WTWBIR team to review this data and determine if there is a need to verify the lack of information with the site. If more than one entry is made (e.g., HDPE and fiberboard), then the response should include enough information to match the *Type/Size* of the container to its liner material.



8.2.15.4.4 *Internal volume (payload volume) per container in  $\text{m}^3$ :* This is provided by the form electronically.  $0.89 \text{ m}^3$



- 8.2.15.4.5 ***Number currently in storage:*** The number of containers currently in storage at the site for this WS should be listed (the date of this inventory should be provided in 8.2.15.4.6).
- 8.2.15.4.6 ***Date of this inventory:*** Date of the inventory provided in section 8.2.15.4.5. The WTWBIR WS data should be consistent with the data provided in the MWIR section. NOTE: WTWBIR prefers that all sites use 12/31/94 as the inventory date so that the inventory data are consistent.
- 8.2.15.4.7 ***Total number of these containers projected from date of inventory to end of 2022 (Do not include the current inventory):*** Do not include the current inventory from section 8.2.15.4.5. This should only include the number of projected containers from the date in 8.2.15.4.6 to the year 2022. This total should be the same as the added sum for 8.2.15.4.9. NOTE: These are annual inventories, NOT cumulative.
- 8.2.15.4.8 ***Comments (RH canisters):*** Any additional comments or clarification of information for sections 8.2.15.4 (RH Canisters) should be included in this comment field.
- 8.2.15.4.9 ***Estimated rates of TRU waste generation (numbers of containers): Includes WTWBIR WS ID and the container type/size (RH canisters):*** For the years 1993, 1994 and perhaps 1995 should NOT include containers from section 8.2.15.4.5. A zero (0) should be entered for these first few years for containers currently in storage. The entry should be a projection of the number of containers for that given year only. A zero should also be entered for a year that has no projections. These entries should add up to total number provided in section 8.2.15.4.7. WTWBIR will use this total and the volume provide in 8.2.15.4.4 to calculate total volumes. Check the comment field in column three for any pertinent comments. NOTE: Waste reported in section 8.2.14 for which the sites do not have plans or schedules for putting the waste in WIPP compliant form and WIPP acceptable containers or the schedule is beyond the year 2022, the sites should estimate the WIPP compliant form and WIPP acceptable containers to be used and should have placed the waste in the year 2022 and state in the comment section that the site has no schedule or that the schedule is beyond the year 2022. A description of the schedule should also be included.
- 8.2.15.4.10 ***Typical waste material weights for Final Waste Form (kg/m<sup>3</sup>); WTWBIR WS ID: and Container type (RH canisters) included:*** The information entered here should be in kg/m<sup>3</sup>. The fields for iron-base metal and plastic do not include the outer container and the rigid liner and or liner bags. The container and the liner information is placed only in the

fields for packaging material. The average, lower limit, and the upper limit should be reasonable. Check to make sure that they are in the right column.

- 8.2.15.5 *Container Type: The final waste form is or will be packaged in WIPP acceptable RH canisters used to over pack 55 gallon drums?:* NO indicates that another container type will be used for this WTWBIR WS. The reviewer should skip all sections in 8.2.15.5 and go to 8.2.15.6. Yes indicates that for this WTWBIR WS some but not necessarily all containers used will be RH canisters used to over pack 55 gallon drums.
- 8.2.15.5.1 *Container material (check all that apply):* This should indicate the composition of the container for the waste in final form. E.g., Carbon steel, Stainless steel, etc. If "Other" is used, check to be sure that it is reasonable.
- 8.2.15.5.2 *Liner type (check all that apply):* This should indicate the type of liner used in the packaging of the final waste container. E.g., Bag, Rigid liner, etc. NOTE: If only some containers include internal shielding or liners, a description of the approximate percent of containers with shielding or liners should be in the comment section 8.2.15.5.8.
- 8.2.15.5.3 *Liner material (check all that apply):* This should indicate the composition of the liner(s) in the Liner type field used in the final waste container. E.g., Cement, HDPE, Plastic. etc. If "Other" is used, check to make sure that it is reasonable. If the section is left blank, make a note for the WTWBIR team to review this data and determine if there is a need to verify the lack of information with the site. If more than one entry is made (e.g., HDPE and fiberboard), then the response should include enough information to match the *Type/Size* of the container to its liner material.
- 8.2.15.5.4 *Internal volume (payload volume) per container in m<sup>3</sup>:* This is provided by the form electronically. 0.89 m<sup>3</sup>
- 8.2.15.5.5 *Number currently in storage:* The number of containers currently in storage at the site for this WS should be listed (the date of this inventory should be provided in 8.2.15.5.6).
- 8.2.15.5.6 *Date of this inventory:* Date of the inventory provided in section 8.2.15.5.5. The WTWBIR WS data should be consistent with the data provided in the MWIR section. NOTE: WTWBIR prefers that all sites use 12/31/94 as the inventory date so that the inventory data are consistent.



8.2.15.5.7



*Total number of these containers projected from date of inventory to end of 2022 (Do not include the current inventory):* Do not include the current inventory from section 8.2.15.5.5. This should only include the number of projected containers from the date in 8.2.15.5.6 to the year 2022. This total should be the same as the added sum for 8.2.15.5.9. NOTE: These are annual inventories, NOT cumulative.

8.2.15.5.8

*Comments (RH Canisters used to overpack 55 gallon drums):* Any additional comments or clarification of information for sections 8.2.15.5 (RH Canisters used to overpack 55 gallon drums) should be included in this comment field.

8.2.15.5.9

*Estimated rates of TRU waste generation (numbers of containers): Includes WTWBIR WS ID and the container type/size (RH Canisters used to overpack 55 gallon drums):* For the years 1993, 1994 and perhaps 1995 should NOT include containers from section 8.2.15.5.5. A zero (0) should be entered for these first few years for containers currently in storage. The entry should be a projection of the number of containers for that given year only. A zero should also be entered for a year that has no projections. These entries should add up to total number provided in section 8.2.15.5.7. WTWBIR will use this total and the volume provide in 8.2.15.5.4 to calculate total volumes. Check the comment field in column three for any pertinent comments. NOTE: Waste reported in section 8.2.14 for which the sites do not have plans or schedules for putting the waste in WIPP compliant form and WIPP acceptable containers or the schedule is beyond the year 2022, the sites should estimate the WIPP compliant form and WIPP acceptable containers to be used and should have placed the waste in the year 2022 and state in the comment section that the site has no schedule or that the schedule is beyond the year 2022. A description of the schedule should also be included.

8.2.15.5.10

*Typical waste material weights for Final Waste Form ( $kg/m^3$ ); WTWBIR WS ID: and Container type (RH Canisters used to overpack 55 gallon drums) included:* The information entered here should be in  $kg/m^3$ . The fields for iron-base metal and plastic do not include the outer container and the rigid liner and or liner bags. The container and the liner information is placed only in the fields for packaging material. The average, lower limit, and the upper limit should be reasonable. Check to make sure that they are in the right column.

8.2.15.6

*Container Type: The final waste form is or will be packaged in WIPP acceptable RH canisters used to over pack 30 gallon drums?:* NO indicates that another container type will be used for this WTWBIR WS. The reviewer should skip all sections in 8.2.15.6 and go to 8.3, if

applicable. Yes indicates that for this WTWBIR WS some but not necessarily all containers used will be RH canisters used to over pack 30 gallon drums.

8.2.15.6.1 *Container material (check all that apply):* This should indicate the composition of the container for the waste in final form. E.g., Carbon steel, Stainless steel, etc. If "Other" is used, check to be sure that it is reasonable.

8.2.15.6.2 *Liner type (check all that apply):* This should indicate the type of liner used in the packaging of the final waste container. E.g., Bag, Rigid liner, etc. NOTE: If only some containers include internal shielding or liners, a description of the approximate percent of containers with shielding or liners should be in the comment section 8.2.15.6.8.

8.2.15.6.3 *Liner material (check all that apply):* This should indicate the composition of the liner(s) in the Liner type field used in the final waste container. E.g., Cement, HDPE, Plastic. etc. If "Other" is used, check to make sure that it is reasonable. If the section is left blank, make a note for the WTWBIR team to review this data and determine if there is a need to verify the lack of information with the site. If more than one entry is made (e.g., HDPE and fiberboard), then the response should include enough information to match the *Type/Size* of the container to its liner material.

8.2.15.6.4 *Internal volume (payload volume) per container in m<sup>3</sup>:* This is provided by the form electronically. 0.89 m<sup>3</sup>

8.2.15.6.5 *Number currently in storage:* The number of containers currently in storage at the site for this WS should be listed (the date of this inventory should be provided in 8.2.15.6.6).

8.2.15.6.6 *Date of this inventory:* Date of the inventory provided in section 8.2.15.6.5. The WTWBIR WS data should be consistent with the data provided in the MWIR section. NOTE: WTWBIR prefers that all sites use 12/31/94 as the inventory date so that the inventory data are consistent.

8.2.15.6.7 *Total number of these containers projected from date of inventory to end of 2022 (Do not include the current inventory):* Do not include the current inventory from section 8.2.15.6.5. This should only include the number of projected containers from the date in 8.2.15.6.6 to the year 2022. This total should be the same as the added sum for 8.2.15.6.9. NOTE: These are annual inventories, NOT cumulative.



- 8.2.15.6.8      *Comments (RH Canisters used to overpack 30 gallon drums):* Any additional comments or clarification of information for sections 8.2.15.6 (RH Canisters used to overpack 30 gallon drums) should be included in this comment field.
- 8.2.15.6.9      *Estimated rates of TRU waste generation (numbers of containers): Includes WTWBIR WS ID and the container type/size (RH Canisters used to overpack 30 gallon drums):* For the years 1993, 1994 and perhaps 1995 should NOT include containers from section 8.2.15.6.5. A zero (0) should be entered for these first few years for containers currently in storage. The entry should be a projection of the number of containers for that given year only. A zero should also be entered for a year that has no projections. These entries should add up to total number provided in section 8.2.15.6.7. WTWBIR will use this total and the volume provide in 8.2.15.6.4 to calculate total volumes. Check the comment field in column three for any pertinent comments. NOTE: Waste reported in section 8.2.14 for which the sites do not have plans or schedules for putting the waste in WIPP compliant form and WIPP acceptable containers or the schedule is beyond the year 2022, the sites should estimate the WIPP compliant form and WIPP acceptable containers to be used and should have placed the waste in the year 2022 and state in the comment section that the site has no schedule or that the schedule is beyond the year 2022. A description of the schedule should also be included.
- 8.2.15.6.10     *Typical waste material weights for Final Waste Form ( $\text{kg}/\text{m}^3$ ); WTWBIR WS ID: and Container type (RH Canisters used to overpack 30 gallon drums) included:* The information entered here should be in  $\text{kg}/\text{m}^3$ . The fields for iron-base metal and plastic do not include the outer container and the rigid liner and or liner bags. The container and the liner information is placed only in the fields for packaging material. The average, lower limit, and the upper limit should be reasonable. Check to make sure that they are in the right column.

