

Facility Site Map Checklist

For Solid Waste Landfills in Kansas

February 10, 2015

Note: This step is to be initiated and completed by the landfill Design Engineer (a Kansas-licensed Professional Engineer) after the “Plat or Certificate of Survey” has been completed and accepted by KDHE-BWM. This map may consist of 2 or 3 design plan sheets within the landfill Permit Drawings or Design Plans. *Please read through this entire checklist before creating a landfill Facility Site Map.*

Step 2: Facility Site Map:

After the PLS completes the Plat, the landfill Design Engineer should use it as a *template* to create a **Facility Site Map**. Please retain *pertinent* boundary survey and other information on the Facility Site Map. Refer to the Kansas Statutes Annotated, Chapter 65- Public Health, Article 34 – Solid Waste, and the Kansas Administrative Regulations, Agency 28- Kansas Department of Health and Environment, Article 29 – Solid Waste Management. On the **Facility Site Map**, **provide illustrative map features and delineate and label the following features within the Facility Permitted Area (FPA):**

- 1) North arrow and scale. Use a convenient engineering scale such as 1”=20’, 1”=50’, or 1”=100’, etc.
- 2) Expanded Legend (be specific and legible when explaining symbols and features). Use standard civil engineering symbols.
- 3) A Coordinate Grid (labeled just outside the property boundary) is recommended to aid the landfill operator and others to pinpoint locations on the Map.
- 4) All utilities.
- 5) Location and description of public water supply, if applicable.
- 6) Monitoring wells and other types of wells. The Design Plans should contain a schedule of information about wells, including location (using coordinates) and elevation (ground, casing, groundwater, depth of well).
- 7) The landfill entrance.
- 8) The landfill information sign and other signs on site.
- 9) Fences and gates (locked if not open). Use symbology to distinguish fence type (barbed wire, chain link, woven wire, etc.)

- 10) Access and haul roads, etc. Also, label the Entrance to the site.
- 11) Buffers and their dimensions (see the Solid Waste Regulations for information regarding buffer distances). A **buffer** is the right angle distance from the property line or Facility Boundary line to the limit of solid waste disposal. Buffers are important features used for access, noise suppression, drainage, etc.
- 12) Topography. Dash or shade topographic contours for the entire landfill facility. Use 1 foot or 2 foot contours. Provide Index contours every 5 or 10 feet. Label ponds and creeks.
- 13) Survey Baselines. Survey Baselines may be used as a reference line for profile and cross section drawings for the facility. Provide alignment data, index station at every 100 feet, and provide coordinates at the terminal ends.
- 14) Illustrate the limits of solid waste previously and currently disposed of at the landfill facility. The landfill **Design Engineer** is to accurately locate ALL waste disposal areas and their types (Municipal Solid Waste, Construction and Demolition, Industrial, or Waste Tire Monofill) *on the ground* within the Facility Permitted Area (FPA). The *corners* of all waste disposal units are then surveyed and mapped using the same **coordinate system** the **PLS** used to prepare the Plat. If the limits of disposal are in doubt, *conservatively illustrate on the map the limits of the waste* using straight lines and simple curves (provide curve data). **Do not use irregular curves**. Label the corners of the waste disposal units so that they can be summarized in a **Coordinates Table**. **All waste disposal areas are to be summarized separately in an Area, Capacity, and History TABLE for the appropriate landfill type**. This will enable the operator to track the sequence of filling of various landfill units. KDHE-BWM will provide an MS Excel *template* to aid in creating an **Area, Capacity, and History TABLE**. The **TABLE** may be customized to suit the landfill facility.

If there is room on the **Facility Site Map**, N and E coordinates can be labeled using a leader pointing to the waste disposal unit corner(s). This is helpful to field staff when conducting CQA activities.

Examples of labeling waste disposal units (cells): Label the waste disposal units, MSW-A, MSW-B, MSW-C. Label the unit's corners, MSW-A-1, MSW-A-2, MSW-A-3; MSW-B-1, MSW-B-2, MSW-B-3, etc. Label a closed MSW as CMSW.

- 15) All structures, including buildings, scales, shops, propane tanks, septic systems, and other structures.
- 16) Drainage structures. Provide a Table to summarize their type, location, dimensions, and invert elevations (on both ends).

- 17) The location of the active face of the landfill. Note the date of the location of the active face on the map.
- 18) Storage areas (such as white goods, scrap metal, waste tires, E-waste, etc.).
- 19) Compost Area (if permitted at the site).
- 20) Open Burn Area (if permitted at the facility). Open burn areas are permitted by KDHE-BWM district offices. Open burn areas must be located a safe distance away from disposal areas.
- 21) The **Facility Site Map** can be used to develop other types of maps:
 - a. Base Grade Contour Map (required in the Permit Drawings)
 - b. Final Grade Contour Map (required in the Permit Drawings)
 - c. Geology and soils
 - d. Ground water monitoring
 - e. Landfill gas (LFG) monitoring
 - f. Storm water drainage
- 22) Submit an electronic Draft of the **Facility Site Map** for review by KDHE-BWM. After the Map is accepted by KDHE-BWM, the Map is to be sealed, signed, and dated by a Kansas-licensed Professional Engineer (PE) and submitted to KDHE-BWM for their files. **If new or updated Permit or Design Drawings are being prepared for the facility, the Facility Site Map is to be inserted immediately following the Plat or Certificate of Survey. An Area, Capacity, and History TABLE is to be inserted on the same sheet or immediately following the Facility Site Map.**
- 23) Note: The **Facility Site Map** and possibly the **Area, Capacity, and History TABLE** need to be updated *annually* so to illustrate and summarize areas that would need to be covered in the event of landfill closure (**Closure Cost Estimate Worksheets for Annual Permit Renewal**).

If you have any questions, please contact the KDHE-BWM Solid Waste Landfill Unit's Permit Manager for the facility.

(End of Checklist)