 Permit Drawings – are they noted on the permit, and current?

Sam Sunderraj, P.E., M.S.
Solid Waste Landfills Unit
Solid Waste Permits Section
Bureau of Waste Management
Kansas Department of Health & Environment
at
SWANA/KDHE Solid Waste Management Conference and Operator Training Course
November 20, 2014
Basis

• **K.S.A 65-3407(f)** - Plans, designs and relevant data for the construction of solid waste processing facilities and disposal sites shall be prepared by a professional engineer licensed to practice in Kansas and shall be submitted to the department for approval prior to the construction, alteration or operation of such facility or area.

• **Kansas Statutes require ownership information to assess**
  – Easement/lease issues,
  – Allowable financial assurance mechanisms.

• **Kansas Regulations require information to assess**
  – Restrictions of land use on closed landfill disposal cells,
  – Closure cost-estimates, etc.
PERMIT

No. 0106

For operating a processing facility or a solid waste disposal area
in accordance with the provisions of Kansas Statutes Annotated 65-3407

Permission is hereby granted

to          Clark County
            (name of governmental entity, corporation or person)
to operate an Municipal Solid Waste Landfill

location    SW ¼, SE ¼, Section 11, T 33 S, R 23 W, Clark County

An approximately 42.07-acre facility permitted area with approximately 36.65 acres of
disposal area.

in conformity with the attached general and special conditions and with all documents submitted
by the permittee and approved by the Department of Health and Environment, including design
plans as noted below.

Permit Design Drawing set entitled:
"Municipal Solid Waste Landfill [Grandfathered SAL]", KDHE Permit No. 0106, Clark County, Kansas.”
Sheets 1, and 3 through 10 of 10 sealed and signed by Kansas licensed Professional Engineer on

Done at Topeka, this 22 day of October 2013

[Signature]
Department of Health and Environment

Our Mission: To protect and improve the health and environment of all Kansans.
Permit

- An approximately 42.07-acre facility permitted area with approximately 36.65 acres of disposal area.

- in conformity with the attached general and special conditions and with all documents submitted by the permittee and approved by the Department of Health and Environment, including design plans as noted below.

- Permit Design Drawing set entitled:
  - “Municipal Solid Waste Landfill (Grandfathered SAL)”, KDHE Permit No. 0106, Clark County, Kansas.”. Sheets 1, and 3 through 10 of 10 sealed and signed by Kansas licensed Professional Engineer on 09/27/13 and sheet 2 of 10 sealed and signed by Kansas licensed Land Surveyor on 09/27/13.
Your Permit

• Is the Facility Permit Area noted?
• Is the Disposal Area noted?
• Are the applicable engineering drawings noted?
  – when noted on the permit these engineering drawings become the permit drawings?
Our Mission: To protect and improve the health and environment of all Kansans.

Permit

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- in conformity with the attached general and special conditions and with all documents submitted by the permittee and approved by the Department of Health and Environment, including design plans as noted below.

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Permit Engineering Drawings
Permit Engineering Drawings (contd)

• Boundary survey by **Kansas licensed Professional Land Surveyor**
  – Notes ownership of the entire Facility Permit Area
    • Multiple parcels ?
    • Multiple owners ? Note percentage of ownership
  – Record all easements of record that apply to any acreage within the Facility Permit Area.
Permit Engineering Drawings (contd)

• Disposal Area clearly delineated
  – Buffers
  – Final Elevations
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Permit Engineering Drawings (contd)
# Permit Engineering Drawings (contd)

## LANDFILL HISTORY, AREA, AND CAPACITY TABLE

### JOHNSON COUNTY LANDFILL – KDHE SOLID WASTE PERMIT 263

<table>
<thead>
<tr>
<th>CELL NO.</th>
<th>KDHE PERMIT DATE</th>
<th>AREA (ACRES)</th>
<th>CAPACITY (CY)</th>
<th>OPENED</th>
<th>CLOSED</th>
<th>CQA CERT. BY ENGINEER</th>
<th>ACCEPTANCE BY KDHE</th>
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### CONSTRUCTION & DEMOLITION UNITS

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Acreages considered

- Total permitted waste disposal acres
- Total permitted area certified closed
- Areas currently open
- Largest area requiring final cover during the renewal period
Department of Health and Environment

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PHASE 2
CLOSED UNIT
CONSTRUCTED AREA = 40.9 ACRES
POST-CLOSURE AREA = 8.8 ACRES

C&D VALLEY FILL
PARTIALLY CLOSED UNIT
CONSTRUCTED AREA = 7.7 ACRES
UNCLOSED AREA = 3.7 ACRES
CLOSED AREA = 4.0 ACRES
POST-CLOSURE AREA = 7.7 ACRES

PHASE 1
CLOSED UNIT
CONSTRUCTED AREA = 35.1 ACRES
POST-CLOSURE AREA = 21.8 ACRES

PHASE 3
CLOSED UNIT
CONSTRUCTED AREA = 75.7 ACRES
POST-CLOSURE AREA = 70.8 ACRES

PHASE 6
OPEN UNIT (SEE NOTES)
CONSTRUCTED AREA = 63.3 ACRES
POST-CLOSURE AREA = 58.9 ACRES
PRE-CLOSURE AREA = 58.9 ACRES
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Key points to remember

- Design your full site – Permit Engineering Drawings
- Construct manageable amounts of airspace – CQA
- Operate with coordinated planning
  - Convenient access to working face for users,
  - Minimize leachate generation
  - Control storm water
  - Soil balance and availability – daily cover/final cover
  - Equipment use audit
- Cover and close in stages to minimize environmental exposure
Life Estimate worksheet

- Make sure you have permit drawings that have been approved for full disposal at the site.
- Make sure you are not filling the airspace with soil.
- Regular “surveys” to assess airspace usage.
??Questions??

Our Mission: To protect and improve the health and environment of all Kansans.
Contact Information

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