**Section 1783.25 Cross-Sections, Maps, and Plans**

a) The application shall include cross-sections, maps, and plans showing:

1) Elevations and locations of test borings and core samplings from the permit and shadow areas;

2) Elevations and locations of monitoring stations used to gather data on water quality and quantity, fish and wildlife, and air quality, if required, in preparation of the application;

3) Nature, depth, and thickness of the coal seams to be mined, any coal or rider seams above the seam to be mined, each stratum of the overburden, and the stratum immediately below the lowest coal seam to be mined;

4) All coal crop lines and the strike and dip of the coal to be mined within the proposed permit area;

5) Location and extent of known workings of active, inactive, or abandoned underground mines, including mine openings to the surface within the proposed permit, shadow and adjacent areas;

6) Location and extent of subsurface water, if encountered, within the proposed permit or adjacent areas, including, but not limited to areal and vertical distribution of aquifers, and portrayal of seasonal differences of head in different aquifers on cross-sections and contour maps;

7) Location and extent of surface water bodies such as streams, lakes, ponds, springs, constructed or natural drains, and irrigation ditches within the proposed permit, shadow and adjacent areas;

8) Location and extent of existing or previously surface-mined areas within the proposed permit area;

9) Location and dimensions of existing areas of spoil, waste, coal development waste, and noncoal waste disposal, dams, embankments, other impoundments, and water treatment and air pollution control facilities within the proposed permit area;

10) Location, and depth if available, of gas and oil wells within the proposed permit area and water wells in the permit, shadow area and adjacent areas.

b) Maps, plans, and cross-sections included in a permit application and required by this Section shall be prepared by, or under the direction of, and sealed by a qualified registered professional engineer licensed under the Professional Engineering Practice Act of 1989 [225 ILCS 325] or a registered professional land surveyor licensed under the Illinois Professional Land Surveyor Act of 1989 [225 ILCS 330], with assistance from experts in related fields such as geology and landscape architecture and shall be updated as required by the Department.

(Source: Amended at 20 Ill. Reg. 2160, effective January 19, 1996)