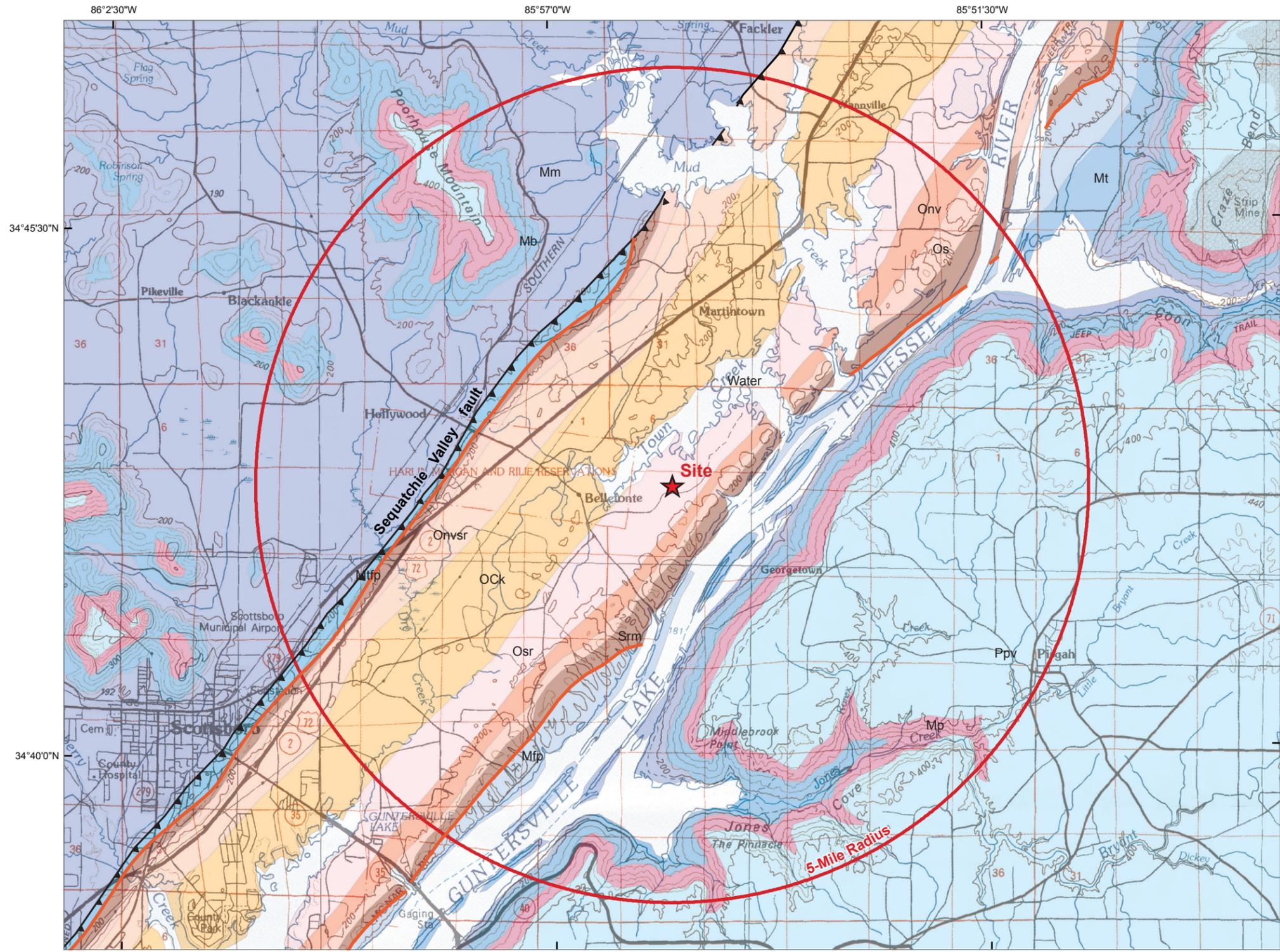


Bellefonte Nuclear Plant, Units 3 & 4
COL Application
Part 2, FSAR



Description of Geologic Units

- Ppv** Pottsville Formation
Light-gray thin to thick-bedded quartzose sandstone and conglomerate containing interbedded dark-gray shale, siltstone, and coal mapped on Lookout Mountain, Blount and Chandler Mountains, and Sand Mountain northeast of Blount County and on the mountains of Blount County, and on the mountains of Jackson, Marshall, and Madison Counties north and west of the Tennessee River.
- Mp** Pennington Formation
Medium-gray shale, containing interbedded limestone, dolomite, argillaceous sandstone, dusky-red and grayish-olive mudstone, and minor shaly coal. Mainly restricted to northeastern Alabama and part of the Sequatchie anticline. Where less than 100 feet thick, the formation is included in the Bangor Limestone.
- Mm** Monteagle Formation
Light-gray oolitic limestone, containing interbedded argillaceous, bioclastic, or dolomitic limestone, dolomite, and medium-gray shale.
- Mb** Bangor Formation
Medium-gray bioclastic and oolitic limestone, containing interbeds of dusky-red and olive green mudstone in upper part.
- Mt** Tusculmbia Limestone
Light-gray limestone, partly oolitic near top; fine- to very coarse-grained bioclastic crinoidal limestone common; light-gray chert nodules and concretions occur throughout and are abundant locally in the Interior Low Plateaus. The apparent thickness of the formation varies due to differential dissolution of the carbonate in the unit.
- Mtp** Fort Payne Chert
Very light- to light-olive-gray, thin- to thick-bedded, fine- to coarse-grained bioclastic (abundant pelmatozoans) limestone containing abundant nodules, lenses and beds of light- to dark-gray chert. Upper part of formation locally consists of light-bluish-gray laminated siltstone containing vugs lined or filled with quartz and scattered throughout the formation are interbeds of medium- to greenish-gray shale, shaly limestone and siltstone.
- Dc** Chattanooga Shale
Brownish-black to black organic shale containing light- to dark-gray sandstone interbeds near the base.
- Srm** Red Mountain Formation
Interbedded yellowish-gray to moderate-red sandstone, siltstone and shale, greenish-gray to moderate-red fossiliferous partly silty and sandy limestone, few thin hematitic beds.
- Os** Sequatchie Formation
Grayish-red, grayish-green, and yellowish-gray, thin-bedded calcareous shale and calcareous mudstone containing interbedded fossiliferous limestone, and medium-gray to moderate-red partly sandy and glauconitic, medium- to coarse-grained bioclastic limestone. A thin fine-grained ferruginous locally fossiliferous sandstone occurs at the top of the formation in Jackson County includes the Leipers Limestone and Inman Formation.
- Onv** Nashville Group
Medium- to dark-gray argillaceous and fossiliferous limestone overlain by yellowish-gray laminated silty limestone. Mapped separately from the Stones River Group only in Jackson County.
- Osr** Stones River Group (undifferentiated in part)
Medium- to dark-gray, thick- to thin-bedded limestone, argillaceous in part, locally very fossiliferous. Contains a zone of bentonite and bentonitic shale near the top. Mapped separately from the Nashville Group only in Jackson County.
- OEK** Knox Group (undifferentiated in part)
Light-gray to light-brown locally sandy dolomite, dolomitic limestone, and limestone, characterized by abundant light-colored chert.

(Source: Szabo et al., 2004)

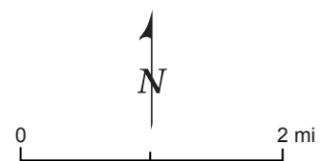


FIGURE 2.5-228
5-Mile Radius Geologic Map