Table 5-7. Estimated L-Reactor support incremental ground-water usage and effects[a]

Location	No. wells	1982 Upward head differential at basin (m)	1983 Use (m^3/min)	1983 Drawdown[b] (m)	Estimated L-Reactor increment Use (m^3/min)	Estimated L-Reactor increment Drawdown[b] (m)	Estimated totals Use (m^3/min)	Estimated totals Drawdown at Well (m)[b]	Estimated totals Drawdown at Basin (m)	Comments	
K-Area (steam-plant)	2	7.6	1.13	3-5	0.14	≤0.5	1.27	≤6	1.8	An upward head differential[c] will exist at wells. This and the hydrostratigraphic properties of the formations will tend to protect the Ellenton and Tuscaloosa Formations from contaminants seeping from overlying shallow groundwater units. K-Area seepage, coal, and ash-basin effluents reaching the shallow ground water will be diverted to outcrops along Pen Branch.	TC
Central Shops[d]	3	2.4	0.57	3-4	0.17	≤0.6	0.74	<5	2.7	A downward head differential will exist at wells and beneath basins. The hydrostratigraphic properties of the formations will tend to protect the Ellenton and Tuscaloosa Formations from contaminants seeping from overlying shallow ground-water units.	TC
F-Separations Area	6	7.6	3.41[e]	<6.5	1.13	1.1	6.17	≤8	3.9	No upward head differential will be present at wells, but an upward differential will be present beneath the seepage basins. The hydrostratigraphic properties of the formations will tend to protect the Ellenton and Tuscaloosa Formations from contaminants seeping from overlying shallow ground-water units. Seepage, coal and ash-basin effluents will be diverted to outcrops along Four Mile Creek.	TC
H-Separations[f] Area	5	3.0	7.19	≤9	1.80	0.90	7.19	≤9	3.6	No upward head differential is present at wells or seepage basins. The hydrostratigraphic properties of the formations will tend to protect the Ellenton and Tuscaloosa formations from contaminants seeping from overlying shallow ground-water units. Seepage, coal and ash-basin effluents will be diverted to outcrops along Four Mile Creek.	TC

Table 5-7. Estimated L-Reactor support incremental ground-water usage and effects[a] (continued)

Location	No. wells	1982 Upward head differential at basin (m)	1983 Use (m^3/min)	1983 Drawdown[b] (m)	Estimated L-Reactor increment Use (m^3/min)	Estimated L-Reactor increment Drawdown[b] (m)	Estimated totals Use (m^3/min)	Estimated totals Drawdown at Well (m)[b]	Estimated totals Drawdown at Basin (m)	Comments
M-Fuel/ Target Fabrications Area[g]	4	-5.5	6.81	<8	1.70	0.75	6.81	<8	3.0	A downward head differential exists in the neighborhood of A- and M-Areas, and important clay layers are absent in this locality. The Ellenton and Tuscaloosa Formations have received contamints contained in M-Area effluents via wells with faulty construction. Pumping from A-Area wells (which supply M-Area) has the potential for increasing contamination of these aquifers. No offsite contamination has occurred and none is likely to occur in the foreseeable future. Under present plans, use of the M-Area settling basin will be discontinued in 1985.
		Total L-Reactor increment =			4.94 m^3/min					

[a]1983 conditions and incremental effects based on information presented in Appendix F and Siple (1967).

[b]Estimated drawdown near the center of cone of depression of pumping well, including effects from other pumping areas and neglecting well entrance losses.

[c]Upward head differential between the Tuscaloosa (higher pressure) and Congaree (lower pressure) Formations in meters of water.

[d]Ground-water usage based on Table F-10 in Appendix F; incremental usage take as 1/3 current usage.

[e]Usage in 1984 after F-Area powerhouse is placed in standby status.

[f]Ground-water usage is not expected to increase to accommodate L-Reactor; however, if L-Reactor does not restart, ground-water withdrawal rates might decrease as much as 25 percent.

[g]Ground-water usage is not expected to increase to accommodate L-Reactor, because fuel and target assemblies are being manufactured in M-Area that could be used in L-Reactor. The well field producing water for M-Area is in A-Area (see Figure F-37). If L-Reactor does not restart, withdrawal rates might decrease by as much as 25 percent. TC