

Table 4-29. U.S. Census poverty thresholds in 1989 by size of family and number of related children under 18 years.^a

Size of Family Unit	Weighted average threshold (\$)	Children under 18 years								
		None (\$)	One (\$)	Two (\$)	Three (\$)	Four (\$)	Five (\$)	Six (\$)	Seven (\$)	Eight or more (\$)
One person (unrelated individual)	6,310									
Under 65 years	6,451	6,451								
65 years & over	5,947	5,947								
Two persons	8,076									
Household under 65 years	8,343	8,303	8,547							
Household 65 years and over	7,501	7,495	8,515							
Three persons	9,885	9,699	9,981	9,990						
Four persons	12,674	12,790	12,999	12,575	12,619					
Five persons	14,990	15,424	15,648	15,169	14,796	14,572				
Six persons	16,921	17,740	17,811	17,444	17,092	16,569	16,259			
Seven persons	19,162	20,412	20,540	20,101	19,794	19,224	18,558	17,828		
Eight persons	21,328	22,830	23,031	22,617	22,253	21,738	21,084	20,403	20,230	
Nine or more persons	25,480	27,463	27,596	27,229	26,921	26,415	25,719	25,089	24,933	23,973

a. Source: USBC (1992)

4.12.2 DISTRIBUTION OF MINORITY AND LOW-INCOME POPULATIONS

Accordingly to the 2000 census data, 203,165 people resided within the 50-mile INTEC region of influence. Of that population, approximately 21,898 individuals (11 percent) are classified as minority individuals. The minority composition is primarily Hispanic, Native American, and Asian. The Fort Hall Indian Reservation of the Shoshone-Bannock Tribes lies largely within the 50-mile region of influence. The spatial distribution of minority populations residing in 42 census tracts within 50 miles of INTEC is shown in Figure 4-20. In some cases, census tracts lie partly within the 50-mile radius circumference. Because the exact distribution of the populations within such tracts is not available, the data are insufficient to allow a precise count. To address this situation, the entire population of census tracts that were bisected by the 50-mile radius circumference line is included in the analysis.

According to the 1990 census data, 170,989 people resided within the 50-mile INTEC region of influence. Of that total population, approximately 20,110 individuals (12 percent) fall within the definition of low-income for the purpose of this analysis. *Note that the U.S. Census Bureau has not released low-income population data for the 2000 census.* Figure 4-21 shows the spatial distribution of low-income individuals within the 50-mile region of influence.

4.13 Utilities and Energy

This section provides baseline usage rates on current INEEL utilities and energy, focusing on INTEC. It includes water consumption, electricity consumption, fuel consumption, and wastewater disposal. The contents of this section are tiered from Volume 2 of the SNF & INEL EIS (DOE 1995).

4.13.1 WATER CONSUMPTION

The water supply system for each INEEL facility area is provided independent of other facilities by a system of wells. DOE holds a Federal Reserve Water Right permitting INEEL to claim 36,000 gallons per minute of groundwater, not to exceed 11.4 billion gallons per year. Water consumption rates at each facility area are calculated based on the cumulative volume of water withdrawn from production wells for each facility. A total of 1.1 billion gallons of water was pumped from the aquifer by the INEEL during *fiscal year (FY) 2000*; of that, 0.36 billion gallons was pumped by INTEC (*Fossum 2002*). A majority of this water returns to the aquifer through seepage ponds, with the remaining water lost to the atmosphere through cooling towers and other evaporation processes.

4.13.2 ELECTRICITY CONSUMPTION

DOE presently contracts with Idaho Power Company to supply power to INEEL. The contract allows for power demand of up to 45,000 kilowatts, which can be increased to 55,000 kilowatts by notifying Idaho Power in advance. Power demand above 55,000 kilowatts is possible but would have to be negotiated with Idaho Power. INEEL customers (INTEC, Test Reactor Area, etc.) pay about \$0.049 per kilowatt hour, which is a combination of the rate Idaho Power charges and costs the INEEL operating contractor adds for maintaining the INEEL power system and general and accounting costs. Idaho Power transmits power to INEEL via a 230-kilovolt line to the Antelope substation, which is owned by PacifiCorp (Utah Power Company). PacifiCorp also has transmission lines to this substation, which provides backup in case of problems with the Idaho Power system. At the Antelope substation the voltage is dropped to 138 kilovolts, then transmitted to the DOE-owned Scoville substation via two redundant feeders. The INEEL transmission system is a 138-kilovolt 65-mile loop configuration that encompasses seven substations, where the power is reduced to distribution voltages (13.8 or 12.5

kilovolts) for use at the various INEEL facilities. The loop allows for a redundant power feed to all substations and facilities.

Peak demand on this electrical power system for FY 2001 was 36 megawatts, compared to 34 megawatts for FY 2000. The monthly average consumption on this system for FY 2001 was 16,387 megawatt-hours. Past years were 16,713 megawatt-hours for FY 2000, 16,984 megawatt-hours for FY 1999, 18,067 megawatt-hours for FY 1998, and 18,328 megawatt-hours for FY 1997. Yearly average consumption was 208,000 megawatt-hours for FYs 1997 to 2001 (*Fossum 2002*). Monthly average consumption of purchased power increased substantially after 1994 because the Experimental Breeder Reactor-II was shut down. Power supplied by this reactor prior to 1995 now must be purchased from Idaho Power Company.

4.13.3 FUEL CONSUMPTION

Fossil fuels consumed at INEEL include fuel oil, diesel fuel, gasoline, and propane (liquid petroleum gas). All fuels are provided and transported by various distributors to each facility.

Fossil fuels consumed at INTEC include fuel oil. In FY 2001, INTEC facilities used 1.1 million gallons of fuel oil (*Fossum 2002*).

4.13.4 WASTEWATER DISPOSAL

Wastewater systems at smaller facility areas consist primarily of septic tanks, drain fields, and lagoons. Wastewater treatment facilities are also provided for larger facility areas including INTEC, Central Facilities Area, and Test Reactor Area.

Annual wastewater discharge volume at INEEL for 1996 was 1.2 billion gallons, compared to 1.1 billion gallons in 1995 and 1.4 billion gallons in 1994. The difference between water pumped and wastewater discharge is caused mainly by evaporation from ponds and cooling towers.