

1536 **Alternative 1 - License Renewal**

1537 Under Action Alternative 1, SQN license renewal would result in no new change to
1538 operating employment levels at the plant, and no impacts to local governmental revenues
1539 are anticipated through this action.

1540 **Alternative 2 - No Action Alternative**

1541 Under No Action Alternative 2, the SQN operating licenses would not be extended, resulting
1542 in shutdown and decommissioning of SQN. Two alternatives for the No Action Alternative
1543 are discussed below.

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1545 **Alternative 2a – New Nuclear Generation**

1546 The impacts of Alternatives 2a and 2b are similar and are discussed together.

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1548 **Alternative 2b – New Natural Gas-Fired Generation**

1549 If the No Action Alternative were chosen and operation of the SQN plant should cease,
1550 there would be no impact on local government revenues. The amount of payment in lieu of
1551 taxes Hamilton County receives is based on land ownership, not its usage, so there would
1552 be no impact if the SQN plant were closed. The site was TVA-owned river property before
1553 SQN was built, and most likely would remain in TVA ownership even if the license renewal
1554 application were not granted. If at some future date TVA were to dispose of the land, the
1555 Hamilton County share would decline by a very small percentage. The SQN site is about 3
1556 percent of the total TVA-owned land in Hamilton County. Since only 10 percent of the
1557 payment is determined by land ownership, the resulting decrease in the county share of
1558 payments from the state would be very small, less than 0.5 percent.

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1560 Should a new nuclear or a new natural gas facility be constructed, revenues for Hamilton
1561 County would still be unaffected, unless TVA chose to sell the SQN property, resulting in a
1562 very minor decrease as discussed above. If TVA purchased property in Hamilton County for
1563 the new nuclear or natural gas facility, local government revenues would increase slightly,
1564 as the total amount of TVA-owned land in the county increased. However, the amount of
1565 land needed would likely be similar to the SQN site and thus make up only a very small
1566 fraction of the total TVA-owned land. Revenue increases would be proportionally small.
1567 Should a plant be built outside the state of Tennessee, any TVA in-lieu-of tax payment
1568 disbursement to local government would be apportioned based on that state's legislative
1569 decision. Whether the local government's existing tax base is small or large, the
1570 disbursement would have a positive and beneficial impact.

1571 **3.13.10. Transportation**

1572 This section addresses impacts to transportation in the environment in the vicinity of SQN.

1573 **3.13.10.1. Affected Environment**

1574 SQN is located in Hamilton County on the western shore of the Tennessee River, outside
1575 the cities of Chattanooga, Lakesite, and Soddy-Daisy (Figures 1-2 and 1-3). The major
1576 Hamilton County east-west road network on the east side of the river is anchored by
1577 Interstate-75 and Interstate-24, both of which pass through Chattanooga. On the west side
1578 of the river running north-south, U.S. Highway 27 (US 27) becomes a major expressway in

1579 Hamilton County, feeding traffic from Chattanooga to Soddy-Daisy and eastward into Rhea
1580 County (Figure 1-3).

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1582 SQN personnel access the site from either US 27 or State Road 319 (SR 319) – Hixson
1583 Pike, via the Sequoyah Access Road (Figure 1-2). The Sequoyah Access Road runs
1584 eastward from US 27 and intersects with SR 319 near the site. In 2008, the average daily
1585 traffic volume on US 27, west of the Sequoyah Access Road intersection, was 33,136
1586 vehicles per day. The average daily traffic volume on the Sequoyah Access Road,
1587 immediately west of SR 319-Hixson Pike, was 3526 vehicles per day. Similarly, the 2008
1588 vehicle count on SR 319-Hixson Pike, immediately south of Sequoyah Access Road, was
1589 2850. (TVA 2009g; TDOT 2008)

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1591 Hamilton County's long-range transportation plan forecast for 2030 anticipates greater
1592 demand than the currently available capacity on many of the existing roadways; although,
1593 US 27 is not included in this list. The plan recommends that while increased transit
1594 opportunities and other strategies are needed to reduce single-occupancy vehicle travel,
1595 capacity additions would still be needed for the most congested roadway facilities.
1596 (CHCRPA 2005)

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1598 Chickamauga Reservoir on the Tennessee River is a navigable waterway used by
1599 commercial and recreational traffic. Through a series of locks and dams, commercial traffic
1600 can travel from Knoxville, Tennessee, located over 100 miles northeast of the site, to the
1601 mouth of the Tennessee River at the Ohio River. (TVA 2008) Commercial and private traffic
1602 on the Tennessee River are discussed in detail in the UFSAR, Section 2.2.

1603

1604 The nearest airport is the Dallas Bay Sky Park, which is a general aviation airport located
1605 approximately 5.5 miles west southwest of the plant. The Chattanooga Airport is a full-
1606 service commercial airport located about 14.5 miles south southwest of the plant. (TVA
1607 2008) SQN has a private use helipad located in association with the plant. (Pilot Outlook
1608 2010)

1609

1610 There is no Amtrak service associated with Chattanooga, and there is no local intercity
1611 passenger rail service. Two of the nation's largest rail networks currently serve the region,
1612 CSX Transportation, Inc. (CSX) and Norfolk Southern Corporation (NS). CSX operates a
1613 rail line from Chattanooga to the Tyner area, where it serves several industries. The largest
1614 railroad presence in the region is NS, which is also the operator of the southwest to
1615 northeast line running near the site through Soddy-Daisy. A railroad spur runs from the NS
1616 line to SQN just outside the exclusion area boundary. (NTAD 2008; NS 2008)

1617 **3.13.10.2. Environmental Consequences**

1618 This section addresses impacts to transportation from site construction and operation of the
1619 Action and No Action Alternatives.

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1621 **Alternative 1 - License Renewal**

1622 Under Action Alternative 1, no refurbishment activities are anticipated to take place during
1623 the license renewal period. In addition, no change to operation at the plant or addition of
1624 operation personnel is anticipated. Any future plans to increase capacity of the spent fuel
1625 storage capacity at SQN would require a minimal number of construction workers on site for