

TENNESSEE VALLEY AUTHORITY

HARTSVILLE NUCLEAR PLANTS

SOCIOECONOMIC MONITORING AND MITIGATION REPORT

HNP - SMR-6

March 31, 1979

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Knoxville, Tennessee

October 1979

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BACKGROUND AND HIGHLIGHTS

For permits to construct the four-unit Hartsville Nuclear Plants located in Smith and Trousdale Counties, Tennessee, TVA agreed to certain monitoring and mitigation actions to reduce the socioeconomic impact in the area expected to accommodate movers. The impact area is defined as Trousdale, Smith, Mason, Sumner, and Wilson Counties, Tennessee. TVA also agreed to report to the Nuclear Regulatory Commission the results of the monitoring efforts and mitigation actions taken to accommodate the impacts.

This is the sixth in a series of semiannual reports which will be submitted during construction of the Hartsville project, including three reporting periods following issuance of the operating license for the last unit. This report is for the period October 1, 1978, through March 31, 1979.

The employment level on March 31, 1979, was 6,567. The mover rate was 31 percent for a total of 2,003 movers. Projections contained in the environmental impact statement (EIS) stopped at 5,000 employees, but the mover rate is much lower than would be expected for a workforce of over 6,500 employees. Thirty-four percent of the workforce was hired from the impact counties.

TVA's major mitigation expenditures this period were for employee transportation (\$306,120) and local governments budgets (\$247,360). TVA's total Hartsville mitigation payments at the end of March were \$4,979,088.

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HARTSVILLE NUCLEAR PLANTS
SOCIOECONOMIC MONITORING AND MITIGATION REPORT

I. General Status of Employment as of
March 31, 1979

A survey of all TVA employees as of March 31, 1979, was conducted during May of 1979. The timelag between employment and survey enables employees who moved to make personal adjustments and should provide a better picture of employee distribution, family characteristics, and housing choice. The employment level was 6,567; and a total of 6,308 (96 percent) employees was surveyed. Of those surveyed, 1,924 employees said they had moved for a mover rate of about 31 percent (table A-1). Information on the family status and housing choice was obtained for those who moved (table A-5). The data on movers have been extrapolated on a ratio basis to the total 6,567 employees, which results in an estimated total number of movers of 2,003. Of the total, 1,540 movers located in the five impact counties; and 463 employees moved to other counties. As shown in table A-1 and figure 1, local workers (nonmovers) are commuting to the project from a much more widespread area.

Information on the distribution of both movers and residents is found in tables A-1, A-2, and figure 1. Additional information on the distribution and characteristics of movers is contained in tables A-3 through A-18.

Table A-1 lists the town of current residence. This table is based on "mailing address" locations instead of jurisdictional locations. All

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employees are asked to provide a place name even though they may not live within any municipal limits. Figure 1 is based on this table. Table A-3 provides a movers' distribution which is based on city limits for the seven communities to which at least 50 employees moved.

Table A-2 shows both the origin and location of all employees. The diagonal line of the "From - To" tabulation shows resident employees (nonmovers). For example, resident employees from Macon County would be found by locating Macon County in the "From" column and going across the table to the "To" column which also reads Macon County. In this survey, 277 residents of Macon County were employed at the end of March 1979. Movers are shown by any other data in this report. For example, 138 employees moved from Other Tennessee Counties to Trousdale County.

Table A-4 of this report series contains a comparison of the survey results with the projections contained in the environmental impact statement (EIS). However, the projections stopped at 5,000 employees which was near the then projected peak of 5,300. Since this survey covers nearly 6,600 employees, an estimate of what the projections would have been was developed through a regression analysis. This was done by plotting total employment versus percent movers and calculating two "least-squares" lines--one for the employment levels 2,100, 3,800, and 5,000 and the other for those three points plus the 4,900 employment level. Two percentages were calculated for the survey employment level (6,567) and averaged. The result was 68 percent. This was then used in table A-4 for comparison purposes.

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The mover rate during this period was 31 percent instead of the projected 68 percent. Sumner County is still receiving the largest share of movers (28 percent) compared with the projected 20 percent. Macon County is receiving the smallest number of movers at 7 percent which is close to the projected 10 percent. The mover distribution to Smith County is low at 10 percent compared with a projected 20 percent. The mover rate to Trousdale County has remained well below that expected with a mover rate of 17 percent again this period compared with a projected 30 percent. Wilson County had a mover distribution of 14 percent compared with the projected 20 percent. Sumner County has received 569 movers compared with 893 that were projected, but the other counties contain far fewer movers than expected. Mover projections were made only for the five impact counties, but 463 employees moved to other counties. Davidson County has received 150 movers. However, 171 employees said they moved from Davidson County; and 131 of the 171 moved to impact counties.

II. General Characteristics of Movers

Total Project--Table A-5 contains data on family status and characteristics and housing choice for all movers. Table A-4 contains a comparison of the extrapolation of some of these results with projections. As of March 31, 1979, 69 percent of those employees who moved brought their families. The remaining 31 percent moved without their families. School-age children per family averaged 0.8 compared with the projected 1.0. The total average family size was 3.3 compared with the projected 3.0. The survey of housing choice shows 48 percent are living in houses, 23 percent in mobile homes, 16 percent in apartments, 6 percent in motel and sleeping rooms, and 7 percent in other accommodations. The "Other" category includes campers, motor homes, and vans.

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Impact Counties and Communities--Data on family status and characteristics and housing choice for movers into each impact county are contained in tables A-6 through A-10 and for movers within the city limits of each of the impact communities in tables A-12 through A-16.

Other Counties and Communities--One part of the computer program which processes the survey data was designed to print out separate reports for counties and communities other than those identified in the impact analysis when a certain number of movers located there. The level chosen for communities was 50 and counties 100. These were judged to be small enough to serve as an "early warning system" for those jurisdictions if the actual location pattern varied significantly from the projected location pattern. They include Davidson County (150 movers), Hendersonville (90 movers), and Nashville (77 movers) as shown in table A-3. The detailed survey results are found in tables A-11, A-17, and A-18.

III. Secondary Employment

Secondary employment impact is defined as a temporary increase in the trade and service-related resident population which can be attributed to the Hartsville project. If the population increase in a county is greater than that arising directly from the project or from other primary employment increases, the possibility of secondary employment exists.

This period only Macon County had an increase in population (42) which was more than could be explained by project-related influx and change in population associated with other primary employment (see table 1).

During this reporting period (September 30, 1978 - March 31, 1979), Macon County experienced a decrease in nonproject-related primary employment.

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Table 1

ESTIMATES OF POPULATION AND POPULATION CHANGE
FOR MACON, SMITH, SUMNER, TROUSDALE, AND WILSON COUNTIES, TENNESSEE
FOR MONITORING SECONDARY SOCIOECONOMIC IMPACTS OF HARTSVILLE NUCLEAR PLANT CONSTRUCTION
SEPTEMBER 30, 1978 - MARCH 31, 1979

	Population Estimate <u>9/30/78</u>	Population Estimate <u>3/31/79</u>	Change in Population Estimate* <u>9/30/78 - 3/31/79</u>	Change in Project Related Population <u>9/30/78 - 3/31/79</u>	Remainder of Nonproject Related Population as of <u>3/31/79</u>	Change in Population Possible from Other Primary Employment	Change in Population Unexplained
Macon County	15,364	15,506	142	100	42	0	42
Smith County	13,376	13,298	-78	131	—	—	—
Sumner County	80,643	80,638	-5	330	—	—	—
Trousdale County	5,238	5,171	-67	181	—	—	—
Wilson	49,321	49,543	222	145	77	1,041	0

*TVA Employee Surveys.

Population estimates by Community Economics Projects Group.

Community Economics Projects Group
8/17/79

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Table 2 shows the application of our monitoring process applied to the period from April 30, 1976, to March 31, 1979. The results of the analysis show that the only county in which population change cannot be totally explained is Macon County. During this three-year period, the population of Macon County increased almost 2,000 persons while employment of Macon County residents declined. This decline in employment was felt both in primary and secondary sectors. It appears that the methodology which we are using in monitoring the Hartsville project provides reasonable results only when the change in the resident population and the change in resident employment are directly related. This opposite relationship observed in Macon County at this point defied explanation. The decline in employment in Macon County does, however, eliminate the possibility that any secondary employment effect of the Hartsville project was felt in that county.

IV. Functional Area Impacts and Mitigation Actions

Education--Monitoring direct impact on education continued to occur primarily through reports from the seven school districts and the Tennessee Department of Education. School districts and the department submit reports in October and May of each school year showing the names of students whose parents are employed at the Hartsville Nuclear Plants, the school previously attended, school and grade in which enrolled, and essential attendance and transportation information. A summary of school districts reports for spring of 1979 is shown in table 3. All school districts reported less direct impact student enrollment than anticipated with the exception of Sumner which exceeded the 320 projected number of direct impact students for school year 1978-79 by 16. This additional impact upon Sumner County's school system will be alleviated by proposed funds in reserve.

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Table 2

ESTIMATES OF POPULATION AND POPULATION CHANGEFOR MACON, SMITH, SUMNER, TROUSDALE, AND WILSON COUNTIES, TENNESSEEFOR MONITORING SECONDARY SOCIOECONOMIC IMPACTS OF HARTSVILLE NUCLEAR PLANT CONSTRUCTIONAPRIL 30, 1976 - MARCH 31, 1979

	<u>Population Estimate 4/30/76</u>	<u>Population Estimate 3/31/79</u>	<u>Change in Population Estimate* 4/30/76 - 3/31/79</u>	<u>Change in Project Related Population 4/30/76 - 3/31/79</u>	<u>Remainder of Nonproject Related Population as of 3/31/79</u>	<u>Change in Population Possible from Other Primary Employment</u>	<u>Change in Population Unexplained</u>
Macon County	13,602	15,506	1,904	402	1,502	0	1,502
Smith County	12,643	13,298	655	466	189	2,484	—
Sumner County	69,544	80,638	11,094	1,650	9,444	30,780	—
Trousdale County	5,232	5,171	-61	758	—	—	—
Wilson County	45,709	49,543	3,834	764	3,889	18,504	—

*TVA Employee Surveys.

Population estimates by Community Economics Projects Group

Community Economics Projects Group
8/21/79

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Table 3

SCHOOL SYSTEMS REPORT OF
HARTSVILLE NUCLEAR PLANTS
DIRECT IMPACT STUDENTS

March 31, 1979

<u>School System</u>	<u>Number of Children of Local Residents</u>	<u>Number of Children of Movers</u>	<u>Total</u>
Smith County	223	21	244
Sumner County	438	336	774
Trousdale County	191	86	277
Wilson County	157	58	215
Macon County	224	122	346
Lebanon City	89	71	160
Watertown City	<u>10</u>	<u>5</u>	<u>15</u>
TOTAL	1,332	699	2,031

TVA, the Tennessee Department of Education, and the seven local school districts in the impact area continue to operate under agreements for alleviating impacts on local school districts. Under these agreements, TVA provides funds for classrooms and schoolbuses. Education mitigation payments this period totaled \$64,590.61 (see table 4).

All school systems in the Hartsville Nuclear Plants project area are eligible to participate in School Assistance in Federally Affected Areas, Title I, Public Law 81-874 programs for fiscal year 1979. Wilson County became eligible for the first time in fiscal year 1978; Macon County in fiscal year 1977; Trousdale County in fiscal year 1976; Smith County, Sumner County, and

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Lebanon city were eligible and participated prior to fiscal year 1975. Since fiscal year 1976, all school systems in the area have experienced significant increases in the number of students claimed. The number of students claimed by the four participating school systems in fiscal year 1976 was 983. In fiscal 1977, 1,573 students were claimed by the five participating school systems. In fiscal year 1978, the six participating school systems claimed 2,467 students; and in fiscal year 1979, the number of students reported at this time is 3,026. Almost two-thirds of this increase was due to the change in status of children of local residents.

According to the school systems in the impact counties and the State Department of Education, TVA is meeting its commitments; and the school systems are able to serve the direct impact students.

Table 4

TVA EDUCATION MITIGATION PAYMENTS

(October 1, 1978 - March 31, 1979)

<u>School System</u>	<u>Facilities</u>	<u>Buses</u>	<u>Total</u>
Macon County	\$28,000.00*	-	\$28,000.00
Smith County	-	-	-
Sumner County	-	-	-
Trousdale County	3,378.01	-	3,378.01
Wilson County	33,212.60	-	33,212.60
Watertown City	-	-	-
TOTAL	\$64,590.61	(0)	\$64,590.61

*Reserve Fund.

Note: Public Law 81-874 assistance is available to the school systems to offset additional operating costs.

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Housing--The objective of the Hartsville Nuclear Plants housing mitigation program has been to assist in the development of mobile home parks in Macon, Smith, and Trousdale Counties as a base for temporary housing demanded by TVA construction workers. Two hundred and forty-three (243) mobile home spaces have been developed through this program.

The Shady Grove Mobile Home Park in Hartsville, Tennessee, has 93 spaces. All units are presently occupied. The Hillsdale Mobile Home Park, located approximately seven miles from the construction site, has 32 of their 70 units presently occupied. The Upper Cumberland Housing Development Corporation, delayed by weather and contractor problems, opened this project in the fall of 1978. Additional employment at the HNP during the spring and summer should improve the occupancy rate for this project.

Local Planning and Coordination Assistance--TVA is continuing to assist the local planning commissions affected by this project. Letters of agreement covering half of their cost for Tennessee State Planning Office services for a period from October 1 each year through September 30 of the following calendar year has been executed for the major impact communities. The need for additional assistance to the local planning commissions is evaluated and negotiated on a year-to-year basis as appropriate. A summary of these payments follows in table 5.

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Table 5

TVA LOCAL PLANNING ASSISTANCE PAYMENTS

<u>Planning Commissions</u>	<u>Amount Paid This Period</u>	<u>Total Paid to Date</u>
Hartsville-Trousdale County	\$1,014.52	\$ 3,307.90
Smith County	687.50	4,625.75
Sumner County	-	3,750.00
Wilson County	-	3,750.00
Carthage	-	2,402.38
South Carthage	-	969.88
Gordonsville	-	475.63
Lafayette	-	1,221.26
Gallatin	2,231.25	5,512.50
Lebanon	2,975.00	6,725.00
Hendersonville	-	3,750.00
Tennessee State Planning Office	-	<u>20,000.00</u>
TOTAL	\$6,908.27	\$56,490.30

TVA continues to provide annual support for the Hartsville Project Coordination Committee for professional staff services to the five impact counties. During this period, \$25,000 was provided, and the total assistance paid to date is \$175,000. In addition, a full time TVA program coordinator is assigned to work with the impact communities.

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Water and Sewer--The water and sewer systems in the impact counties continue to be monitored periodically to determine if these systems are adequate to handle the anticipated mobile home connections. Thus far, the total number of actual movers continues to be smaller than was originally projected and a large number of movers continue to locate outside the impact area. As a result, the water supply treatment capacities throughout the impact area continue to be more than sufficient to accommodate the inmoving customers. Similarly, the sewer systems, which are generally overloaded only during periods of heavy rainfall, are able to treat the wastes generated by the inmoving construction workers and their families in addition to that of their permanent residents. TVA has assisted and is continuing to assist those communities that have experienced significant temporary adverse water and sewer impacts from inmoving mobile homes of construction workers.

The Hillsdale Mobile Home Park, located just across the Macon County line, was initially planned for 150 spaces. However, only 70 spaces with utility connections were constructed and at present 32 are occupied. Originally, \$130,000 was allocated to upgrade the Lafayette Wastewater Treatment Plant to accommodate the anticipated 150 new housing units in the town. However, since the Lafayette Sewage Treatment Facility is not now expected to be impacted to this extent because of the construction of the mobile home park, \$125,000 of these funds was diverted to provide sewage treatment facilities at the Hillsdale Mobile Home Park. This \$125,000 was used to provide a non-interest bearing loan to the Upper Cumberland Housing and Development Corporation which is to be repaid to TVA in 10 equal annual payments beginning October 1, 1979.

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TVA has recently completed a supplement to the nuclear plant water supply contract with the town of Hartsville to provide for the installation of approximately 6,200 additional feet of eight-inch waterline to help relieve low pressures which occasionally occur in the Shady Grove Mobile Home Park and the elementary school on Lock Six Road caused by the relatively high water demands at the nuclear plant construction site. The town has selected a contractor who is now in the process of installing this waterline.

No impact mitigation payments for water and sewer were made during the reporting period. However, TVA will continue to monitor the water and sewer systems in the impact counties to determine their capability to handle the mover impacts as they occur.

Health and Medical Services--TVA's health mitigation payments amounted to \$17,637 this period. TVA paid \$1,557 to the Mid-Cumberland Regional Health Department for a portion of the salary of an environmentalist, \$3,999 to the Upper Cumberland Regional Health Department for one-half the salary of a public health nurse, and \$12,081 for ambulance services in Trousdale County. The primary health care center at Hartsville was taken over in mid-December, 1978, by a private, nonprofit organization and mitigation assistance was discontinued at that time. TVA will continue to assess the health needs of the five-county Hartsville area; however, it is not anticipated that significant additional expenditures will be needed.

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Traffic--In accordance with an agreement between TVA and the Tennessee Department of Transportation, the department has been supplying TVA with traffic counts for 12 locations on a quarterly basis beginning in October 1975. With approximately 6,600 employees, peak-hour traffic on Highway 25 has increased from 120 vehicles per hour (VPH) to 540 VPH east of the site and from 120 VPH to 1,350 VPH west of the site. The peak-hour traffic volume west of the site is exceeding the allowable volume for level of service D operation of the highway (see appendix C). As expected, this peak volume occurs during the afternoon shift change. In an effort to mitigate the peak-hour traffic volumes, TVA is continuing the mass transportation system (commuter buses and vans) and 30-minute shift differential between plants A and B. Volumes for other key highway segments are shown in table 6 and are well below the allowable volumes for level of service D operation.

Table 6
TRAFFIC EVALUATION
(October 1975 - March 1979)

	Number of Vehicles During Peak Hour*		TVA Commuter Traffic
	1975	1979	
Highway 25 East of Plant	120	540	480
Highway 25 West of Plant	120	1,350	1,280
Highway 25 West of Hartsville	290	1,000	820
Highway 25 West of 231 Junction	210	580	350
Highway 231 South of 25 Junction	150	400	280
Highway 231 North of Lebanon	150	370	230

*The current peak hour occurs during the 3-4 p.m. hour.

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Employee Transportation--Five new buses were added this period for a total of 15. Two of the buses serve the Hermitage - Mt. Juliet communities, and the remaining three serve Lafayette, Portland, and Manchester. The number of van pools remains steady at 155. About one-half (47 percent) of the employees on the day shift are riding vans or buses to work. We estimate the TVA sponsored van pools and buses are keeping over 950 cars off the road. TVA's expenditures this period for employee transportation was \$306,120.

Local Government Budgets--The impact on the budgets of local governments in the Hartsville construction project impact area is measured on an annual basis. Projected project-related expenses are compared to projected project-related revenues to determine whether deficits will occur. TVA executes contracts with local governments to provide payments to cover the amounts of deficits that are projected. Payments from these contracts made to local governments during this period are as follows:

Table 7

PAYMENTS TO LOCAL GOVERNMENTS

(September 30, 1978 - March 31, 1979)

City of Hartsville	\$ 98,699
City of Gallatin	35,600
City of Lafayette	561
City of Carthage	3,800
Trousdale County	88,000
Macon County	<u>20,700</u>
	\$247,360

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A more detailed monitoring and accountability plan has been implemented by TVA. In this plan, a study has been made of the increases in revenues and expenditures of the local governments in the years before the project started. The results of this study are compared to the increases in revenues and expenditures in the years after the Hartsville project started to help determine both the negative and positive impacts on the local governments' budgets in the impact area. The results of this plan were used in the latest period in negotiating contracts with local government officials in the Hartsville project impact area.

Local Recruitment and Training--A total of 2,256 workers were from the five-county impact area and 970 were from Davidson County. This indicates that local recruitment and training initiatives are continuing to be successful in reducing overall socioeconomic impact within the five counties. The steamfitter training program has graduated 56 trainees who have filled jobs at the Hartsville Nuclear Plants. The boilermaker training program has 29 trainees; 18 have graduated and are working at the Hartsville Nuclear Plants. These two programs were developed to help meet the demand for highly skilled craftsmen in critical skill manpower shortage areas and to lessen TVA's construction mover impact. Trainees in these programs are from the 16-county recruitment area.

Recreation--Community recreation impacts were monitored and an assessment of local needs was continued in the impact area during this reporting period. A recreation planner is continuing to work with the program

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coordinator and local officials to monitor impacts and provide assistance. TVA is providing technical and financial assistance for facility and program development. Hopefully, this assistance will result in long-term benefits to impacted communities as well as alleviate temporary impacts.

Although no financial assistance was provided, several requests were received for facility and program improvements during the reporting period. It is expected that some financial assistance will be given during the next reporting period after budget approval. Technical assistance was provided to various communities, including several site planning projects, consultation with Louisville-Trousdale County for establishing a full-time parks and recreation program, and study of potential for a countywide recreation program in Sumner County.

Summary of Mitigation Expenditures--In the functional areas of mitigation, TVA has made payments totaling \$4,979,088. As noted in table 8, the major expenditures this reporting period were for employee transportation (\$306,120) and local governments (\$247,360).

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Table 8

SUMMARY OF TVA MITIGATION EXPENDITURES

AS OF MARCH 31, 1979

	<u>Expenditures This Period</u>	<u>Expenditures To Date</u>
Education	\$ 64,591	\$ 1,440,759
Housing	--	423,000 ¹
Local Planning and Coordination Assistance	31,908	231,021
Water and Sewer	125,000 ²	380,000 ²
Health	17,637	108,772
Local Governments	247,360	591,853
Employee Transportation	<u>306,120</u>	<u>1,803,683</u>
TOTAL	\$792,616	\$4,979,088

1. Includes \$60,000 interest-bearing loan.

2. Includes \$125,000 noninterest-bearing loan.

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APPENDIXES

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Detailed Survey Results

TABLE A-1

FOLLOW UP SURVEY
TOWN OF CURRENT RESIDENCE
HARTSVILLE NUCLEAR PLANT EMPLOYEES
ACTIVE EMPLOYEES 03-31-79

RUN DATE 08/06/79
RUN TIME 080940
REPORT 2

TOWN		MOVED TO TOWN	ALREADY IN TOWN	TOTAL	POPULATION
ALEXANDRIA	TN	9	43	52	680
BAXTER	TN	10	69	79	1,314
CARTHAGE	TN	89	157	246	2,491
COKEVILLE	TN	28	100	128	17,800
CROSSVILLE	TN	13	53	66	5,381
GALLATIN	TN	313	420	733	13,362
GORDONSVILLE	TN	9	37	46	601
HARTSVILLE	TN	336	255	591	2,243
HENDERSVILLE	TN	98	173	271	28,000
LAFAYETTE	TN	124	207	331	2,583
LEBANON	TN	232	279	511	12,492
MANCHESTER	TN	6	29	35	6,869
MONTREY	TN	5	6	11	2,351
MURFREESBORO	TN	16	50	66	28,700
NASHVILLE	TN	84	612	696	469,000
PORTLAND	TN	16	70	86	3,001
RED BELLING SPRINGS	TN	10	60	70	956
SMITHVILLE	TN	9	143	152	3,762
SPARTA	TN	10	13	23	4,930
WESTMORELAND	TN	21	70	91	1,423
BETHPAGE	TN	24	61	85	400
CASALIAN SPRINGS	TN	52	27	89	150
COTTONDAWN	TN	5	18	23	100
DIXON SPRINGS	TN	43	31	74	100
ELMWOOD	TN	7	15	22	100
GOODLETTSVILLE	TN	12	65	77	7,541
HERMITAGE	TN	8	28	36	6,000
LANCASTER	TN	7	8	15	150
MADISON	TN	21	101	122	21,500
MOUNT JULIET	TN	30	80	110	1,568
OLD HICKORY	TN	11	62	73	6,000
PLEASANT SHADE	TN	15	32	47	150
RIDDLETON	TN	8	16	24	100
SILVER POINT	TN	5	16	21	150
WATERLOO	TN	5	32	37	1,061
WHITE HOUSE	TN	8	13	21	1,305
SCOTTSVILLE	KY	6	89	95	3,584
TOMPKINSVILLE	KY	5	21	26	2,207
SUBTOTAL		1720	3561	5281	
ALGODD	TN	1	11	12	1,917
CELINA	TN	4	19	23	1,370
CHARLOTTE	TN	3	6	9	610

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TABLE A-1, PAGE 2

FOLLOW UP SURVEY
TOWN OF CURRENT RESIDENCE
HARTSVILLE NUCLEAR PLANT EMPLOYEES
ACTIVE EMPLOYEES 03-31-79

RUN DATE 08/06/79
RUN TIME 080940
REPORT 2

TOWN		MOVED TO TOWN	ALREADY IN TOWN	TOTAL	POPULATION
CLARKSVILLE	TN	2	12	14	44,900
DICKSON	TN	3	8	11	16,377
DOWELLTOWN	TN	1	26	27	329
FAIRVIEW	TN	3	6	9	1,925
FRANKLIN	TN	1	6	7	11,298
GAINESBORO	TN	4	43	47	1,101
GREEN BRIER	TN	1	35	36	2,279
LA VERGNE	TN	3	15	18	5,209
LIBERTY	TN	2	28	30	332
MCMINNVILLE	TN	2	7	9	11,610
RIDGETOP	TN	1	6	7	810
SHELBYVILLE	TN	0	11	11	11,900
SMYRNA	TN	3	11	14	5,698
SPRINGFIELD	TN	3	29	32	9,720
TULLAHOMA	TN	2	6	8	15,577
WOODBURY	TN	4	23	27	2,087
ANTIOCH	TN	3	13	16	900
ASHLAND CITY	TN	3	17	20	2,027
AUBURNTOWN	TN	1	7	8	213
BRUSH CREEK	TN	2	22	24	230
BUFFALO VALLEY	TN	1	15	16	100
CHESTNUT MOUND	TN	0	10	10	125
CROSS PLAINS	TN	1	9	10	261
DONELSON	TN	1	11	12	25,500
HICKMAN	TN	3	22	25	200
JOEYTON	TN	1	29	30	900
MOSS	TN	3	12	15	200
PEGRAM	TN	2	6	8	774
WHITES CREEK	TN	2	7	9	200
WHITLEYVILLE	TN	2	6	8	50
BOWLING GREEN	KY	1	11	12	39,400
FRANKLIN	KY	2	9	11	7,176
GLASGOW	KY	1	5	6	11,900
ADOLPHUS	KY	2	17	19	250
FOUNTAIN RUN	KY	3	7	10	128
SUBTOTAL		77	543	620	
OTHER		127	280	407	
TOTAL RESPONSES		1924	4384	6308	
HNP WORKFORCE TOTAL 03-31-79				6567	

1347 075

TABLE A-2

FOLLOW UP SURVEY
SOURCE AND LOCATION OF CONSTRUCTION EMPLOYEES RUN DATE 08/06/79
HARTSVILLE NUCLEAR PLANT RUN TIME 081039
ACTIVE EMPLOYEES 03-31-79 REPORT 4

FROM --- TO	-----IMPACT COUNTIES-----						OTHER REC. COUNTIES	OTHER TENN. COUNTIES	OTHER KENTUCKY COUNTIES	OTHER (4)	TOTAL
	TROUSDALE	SMITH	MACON	SUMNER	WILSON	DAVIDSON					
TROUSDALE (1)	256	6	4	14	7	1	3				291
SMITH (1)	8	361	5	1	9	1	5	2	1		393
MACON (1)	3	2	277	4	5	1	1				293
SUMNER (1)	17	7	11	876	3	14	4	3	1	1	937
WILSON (1)	8	8		10	397	8	6	5			442
DAVIDSON (1)	12	21	3	61	34	932	18	20		2	1103
OTHER RECRUITING COUN (2)	10	25	10	16	8	12	944	17	3		1045
OTHER TN. COUNTIES (3)	132	64	43	188	101	45	44	341	1	14	979
OTHER KY. COUNTIES (3)	4	2	4	11	6		4		30		61
ALABAMA	31	9	10	64	29	10	3	3	1	28	188
ARKANSAS	3	1		4	2					4	14
GEORGIA	9	2	3	3	5	4	2	1		6	35
MISSISSIPPI	6		1	4	1	2	1	1			16
NORTH CAROLINA	2	2	1	4	6	2		1			18
SOUTH CAROLINA	1	2		2		1	1			1	8
OTHER STATES	53	32	35	127	51	39	24	27		67	485
*** TOTAL	591	544	407	1389	664	1072	1050	421	37	125	6308

NOTE: DATA ON DIAGONAL INDICATES NONMOVERS, WITH THE EXCEPTION OF MOVES WITHIN A COUNTY

(1) RECRUITING COUNTY

(2) TENNESSEE COUNTIES: CANNON, CLAY, DENALB, JACKSON, PUTNAM,
ROBERTSON, RUTHERFORD

KENTUCKY COUNTIES: ALLEN, MONROE, SIMPSON

(3) ALL COUNTIES IN KENTUCKY AND TENNESSEE OTHER THAN RECRUITING COUNTIES

(4) "OTHER" INCLUDES NON-RESPONSES OR ERRONEOUS RESPONSES FOR CURRENT ADDRESS.

1347 076

Table A-3

Hartsville Nuclear Plants
Distribution of Movers and Associated
Population by County and Community
March 31, 1979

<u>County</u>	Percent of <u>Movers</u>	Number ¹ of <u>Movers</u>	Population Influx ¹	
			<u>School-Age</u>	<u>Total</u>
Trousdale	17	350	123	758
Smith	10	199	94	466
Macon	7	143	103	402
Sumner	28	569	369	1,605
Wilson	14	279	167	764
Other Counties	<u>23</u>	<u>463</u>	<u>233</u>	<u>1,147</u>
Total	100 ²	2,003	1,089	5,042
<u>Community</u> ³				
Carthage	3	53	13	102
Gallatin	9	184	85	500
Hartsville	12	238	57	450
Hendersonville	5	90	59	232
Lebanon	5	94	42	226
Lafayette	3	60	51	178
Nashville	<u>4</u>	<u>77</u>	<u>26</u>	<u>162</u>
Total	41	796	333	1,850

1. Numbers extrapolated.

2. Percentages may not add to 100 because of rounding.

3. Within municipal limits.

1347 077

Table A-4

Hartsville Nuclear Plants
Comparison of Survey Results with
Projections for Selected Parameters
Employment Level - 6,567

	<u>Projected</u>	<u>Surveyed</u> ¹
Number Movers	4,466	2,003
Percent Movers	68	31
School-Age Children	2,903	1,089
School-Age Children/Family	1.0	0.8
Total Population	8,709	5,142

	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>
Movers with Families	65	2,903	69	1,390
Movers without Families	35	1,563	31	613

	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>
Housing Choice:				
Houses	31	1,384	48	965
Mobile Homes	47	2,099	23	451
Apartments	18	804	16	320
Motel and Sleeping Rooms	4	179	6	130
Other	<u>0</u>	<u>0</u>	<u>7</u>	<u>137</u>
Total	100	4,466	100 ²	2,003

	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>
Distribution by County:				
Davidson	0	0	7	150
Trousdale	30	1,340	17	350
Smith	20	893	10	199
Macon	10	447	7	143
Sumner	20	893	28	569
Wilson	20	893	14	279
Other Counties	<u>0</u>	<u>0</u>	<u>16</u>	<u>313</u>
Total	100	4,466	100 ²	2,003

1. Numbers extrapolated.

2. Percentages may not add to 100 because of rounding.

1347 078

TABLE A-5

FOLLOW UP SURVEY
WORKERS WHO MOVED INTO HARTSVILLE NUCLEAR PLANT AREA PAGE 019

MOVER SUMMARY
ACTIVE EMPLOYEES 03-31-79

RUN DATE 08/06/79
REPORT 1F
RUN TIME 080925

	MOVERS WITH FAMILY	WITH CHILDREN IN SCHOOL	TOTAL NUMBER OF CHILDREN	CHILDREN IN GRADE SCHOOL	CHILDREN IN HIGH SCHOOL	MOVERS WITHOUT FAMILY	TOTAL MOVERS
ANNUAL EMPLOYEES							
HOUSE OWNED	236	123	330	157	55	18	254
HOUSE RENTED	44	13	39	16	5	15	59
APARTMENT RENTED	45	6	19	7	1	59	104
MOBILE HOME RENTED	4	3	6	4	0	10	14
MOBILE HOME OWNED	28	6	19	5	2	14	42
SLEEPING ROOM	1	1	2	2	0	5	6
MOTEL	1	0	1	0	0	4	5
OTHER	9	3	5	3	2	10	19
TOTAL	368	155	421	194	65	135	503
HOURLY EMPLOYEES							
HOUSE OWNED	299	167	479	225	93	12	311
HOUSE RENTED	239	108	316	158	42	64	303
APARTMENT RENTED	106	29	86	40	7	97	203
MOBILE HOME RENTED	117	45	136	58	18	89	206
MOBILE HOME OWNED	128	53	161	76	27	43	171
SLEEPING ROOM	9	3	10	7	0	27	36
MOTEL	17	4	10	4	0	61	78
OTHER	52	20	61	24	8	61	113
TOTAL	967	429	1259	592	195	454	1421
ALL EMPLOYEES							
HOUSE OWNED	535	290	809	382	148	30	565
HOUSE RENTED	283	121	355	174	47	79	362
APARTMENT RENTED	151	35	105	47	8	156	307
MOBILE HOME RENTED	121	48	142	62	18	99	220
MOBILE HOME OWNED	156	59	180	81	29	57	213
SLEEPING ROOM	10	4	12	9	0	32	42
MOTEL	18	4	11	4	0	65	83
OTHER	61	23	66	27	10	71	132
TOTAL	1335	584	1680	786	260	589	1924

1347 079

TABLE A-6

FOLLOW UP SURVEY
WORKERS WHO MOVED INTO HARTSVILLE NUCLEAR PLANT AREA PAGE 006

MACON
EMPLOYEES LIVING WITHIN THE COUNTY TOTAL
ACTIVE EMPLOYEES 03-31-79
RUN DATE 08/06/79
REPORT 18
RUN TIME 080925

	MOVERS WITH FAMILY	WITH CHILDREN IN SCHOOL	TOTAL NUMBER OF CHILDREN	CHILDREN IN GRADE SCHOOL	CHILDREN IN HIGH SCHOOL	MOVERS WITHOUT FAMILY	TOTAL MOVERS
ANNUAL EMPLOYEES							
HOUSE OWNED	8	4	9	6	0	0	8
HOUSE RENTED	2	2	3	2	0	0	2
APARTMENT RENTED	1	0	0	0	0	0	1
MOBILE HOME RENTED	1	0	1	0	0	1	2
MOBILE HOME OWNED	2	0	0	0	0	2	4
SLEEPING ROOM							
MOTEL							
OTHER							
TOTAL	14	6	13	8	0	3	17
HOURLY EMPLOYEES							
HOUSE OWNED	34	18	57	36	7	1	35
HOUSE RENTED	11	5	22	8	6	2	13
APARTMENT RENTED	3	1	3	2	0	1	4
MOBILE HOME RENTED	22	9	26	11	4	10	32
MOBILE HOME OWNED	17	10	20	11	4	7	24
SLEEPING ROOM	0	0	0	0	0	2	2
MOTEL	0	0	0	0	0	2	2
OTHER	4	2	3	2	0	4	8
TOTAL	91	45	131	70	21	29	120
ALL EMPLOYEES							
HOUSE OWNED	42	22	66	42	7	1	43
HOUSE RENTED	13	7	25	10	6	2	15
APARTMENT RENTED	4	1	3	2	0	1	5
MOBILE HOME RENTED	23	9	27	11	4	11	34
MOBILE HOME OWNED	19	10	20	11	4	9	28
SLEEPING ROOM	0	0	0	0	0	2	2
MOTEL	0	0	0	0	0	2	2
OTHER	4	2	3	2	0	4	8
TOTAL	105	51	144	78	21	32	137

1347 080

TABLE A-7

FOLLOW UP SURVEY
WORKERS WHO MOVED INTO HARTSVILLE NUCLEAR PLANT AREA PAGE 007

SMITH
EMPLOYEES LIVING WITHIN THE COUNTY TOTAL
ACTIVE EMPLOYEES 03-31-79

RUN DATE 08/06/79
REPORT 1B
RUN TIME 080925

	MOVERS WITH FAMILY	WITH CHILDREN IN SCHOOL	TOTAL NUMBER OF CHILDREN	CHILDREN IN GRADE SCHOOL	CHILDREN IN HIGH SCHOOL	MOVERS WITHOUT FAMILY	TOTAL MOVERS
ANNUAL EMPLOYEES							
HOUSE OWNED	6	5	13	8	4	1	7
HOUSE RENTED	4	1	2	0	1	3	7
APARTMENT RENTED	0	0	0	0	0	3	3
MOBILE HOME RENTED	1	1	2	2	0	3	4
MOBILE HOME OWNED	7	2	2	0	2	2	9
SLEEPING ROOM	0	0	0	0	0	1	1
MOTEL							
OTHER	0	0	0	0	0	1	1
TOTAL	18	9	19	10	7	14	32
HOURLY EMPLOYEES							
HOUSE OWNED	31	18	40	21	12	2	33
HOUSE RENTED	32	11	32	12	2	8	40
APARTMENT RENTED	2	0	2	0	0	5	7
MOBILE HOME RENTED	11	2	5	2	0	15	26
MOBILE HOME OWNED	27	11	30	17	5	10	37
SLEEPING ROOM	0	0	0	0	0	7	7
MOTEL	1	1	1	1	0	3	4
OTHER	3	1	3	1	0	2	5
TOTAL	107	44	113	54	19	52	159
ALL EMPLOYEES							
HOUSE OWNED	37	23	53	29	16	3	40
HOUSE RENTED	36	12	34	12	3	11	47
APARTMENT RENTED	2	0	2	0	0	8	10
MOBILE HOME RENTED	12	3	7	4	0	18	30
MOBILE HOME OWNED	34	13	32	17	7	12	46
SLEEPING ROOM	0	0	0	0	0	8	8
MOTEL	1	1	1	1	0	3	4
OTHER	3	1	3	1	0	3	6
TOTAL	125	53	132	64	26	66	191

1347 081

TABLE A-8

FOLLOW UP SURVEY
WORKERS WHO MOVED INTO HARTSVILLE NUCLEAR PLANT AREA PAGE 008

SUMNER
EMPLOYEES LIVING WITHIN THE COUNTY TOTAL
ACTIVE EMPLOYEES 03-31-79
RUN DATE 08/06/79
REPORT 18
RUN TIME 080925

	MOVERS WITH FAMILY	WITH CHILDREN IN SCHOOL	TOTAL NUMBER OF CHILDREN	CHILDREN IN GRADE SCHOOL	CHILDREN IN HIGH SCHOOL	MOVERS WITHOUT FAMILY	TOTAL MOVERS
ANNUAL EMPLOYEES							
HOUSE OWNED	140	72	205	93	36	13	153
HOUSE RENTED	15	7	17	9	4	6	21
APARTMENT RENTED	21	5	13	6	1	24	45
MOBILE HOME RENTED	1	1	1	1	0	1	2
MOBILE HOME OWNED	9	1	8	1	0	2	11
SLEEPING ROOM	0	0	0	0	0	2	2
MOTEL	1	0	1	0	0	1	2
OTHER	2	0	0	0	0	2	4
TOTAL	189	86	245	110	41	51	240
HOURLY EMPLOYEES							
HOUSE OWNED	38	50	151	66	21	3	91
HOUSE RENTED	57	31	86	44	15	14	71
APARTMENT RENTED	39	14	43	23	3	20	59
MOBILE HOME RENTED	11	5	13	7	1	10	21
MOBILE HOME OWNED	19	7	22	12	3	7	26
SLEEPING ROOM	3	1	2	2	0	5	8
MOTEL	5	0	4	0	0	9	14
OTHER	9	4	9	4	2	8	17
TOTAL	231	112	330	158	45	76	307
ALL EMPLOYEES							
HOUSE OWNED	228	122	356	159	57	16	244
HOUSE RENTED	72	38	103	53	19	20	92
APARTMENT RENTED	60	19	56	29	4	44	104
MOBILE HOME RENTED	12	6	14	8	1	11	23
MOBILE HOME OWNED	28	8	30	13	3	9	37
SLEEPING ROOM	3	1	2	2	0	7	10
MOTEL	6	0	5	0	0	10	16
OTHER	11	4	9	4	2	10	21
TOTAL	420	198	575	268	86	127	547

1347 082

TABLE A-9

FOLLOW UP SURVEY
WORKERS WHO MOVED INTO HARTSVILLE NUCLEAR PLANT AREA PAGE 009

TROUSDALE
EMPLOYEES LIVING WITHIN THE COUNTY TOTAL
ACTIVE EMPLOYEES 03-31-79

RUN DATE 08/06/79
REPORT 18
RUN TIME 080925

	MOVERS WITH FAMILY	WITH CHILDREN IN SCHOOL	TOTAL NUMBER OF CHILDREN	CHILDREN IN GRADE SCHOOL	CHILDREN IN HIGH SCHOOL	MOVERS WITHOUT FAMILY	TOTAL MOVERS
ANNUAL EMPLOYEES							
HOUSE OWNED	9	3	11	3	0	0	9
HOUSE RENTED	6	1	5	1	0	1	7
APARTMENT RENTED	6	1	1	1	0	11	17
MOBILE HOME RENTED	0	0	0	0	0	4	4
MOBILE HOME OWNED	6	2	6	3	0	7	13
SLEEPING ROOM	0	0	0	0	0	2	2
MOTEL	0	0	0	0	0	1	1
OTHER	0	0	0	0	0	1	1
TOTAL	27	7	23	8	0	27	54
HOURLY EMPLOYEES							
HOUSE OWNED	20	6	24	6	5	1	21
HOUSE RENTED	25	17	36	21	8	9	34
APARTMENT RENTED	16	2	3	1	1	29	45
MOBILE HOME RENTED	46	16	59	23	10	39	85
MOBILE HOME OWNED	32	16	48	20	9	11	43
SLEEPING ROOM	3	1	4	2	0	7	10
MOTEL	5	1	3	1	0	15	20
OTHER	8	3	10	3	0	16	24
TOTAL	155	62	187	77	33	127	282
ALL EMPLOYEES							
HOUSE OWNED	29	9	35	9	5	1	30
HOUSE RENTED	31	18	41	22	8	10	41
APARTMENT RENTED	22	3	4	2	1	40	62
MOBILE HOME RENTED	46	16	59	23	10	43	89
MOBILE HOME OWNED	38	18	54	23	9	18	56
SLEEPING ROOM	3	1	4	2	0	9	12
MOTEL	5	1	3	1	0	16	21
OTHER	8	3	10	3	0	17	25
TOTAL	182	69	210	85	33	154	336

1347 083

TABLE A-10

FOLLOW UP SURVEY
WORKERS WHO MOVED INTO HARTSVILLE NUCLEAR PLANT AREA PAGE 010

WILSON
EMPLOYEES LIVING WITHIN THE COUNTY TOTAL
ACTIVE EMPLOYEES 03-31-79

RUN DATE 08/06/79
REPORT 1B
RUN TIME 080925

	MOVERS WITH FAMILY	WITH CHILDREN IN SCHOOL	TOTAL NUMBER OF CHILDREN	CHILDREN IN GRADE SCHOOL	CHILDREN IN HIGH SCHOOL	MOVERS WITHOUT FAMILY	TOTAL MOVERS
ANNUAL EMPLOYEES							
HOUSE OWNED	60	31	75	37	10	3	63
HOUSE RENTED	7	1	4	3	0	5	12
APARTMENT RENTED	8	0	3	0	0	8	16
MOBILE HOME RENTED	0	0	0	0	0	1	1
MOBILE HOME OWNED	3	1	3	1	0	1	4
SLEEPING ROOM	1	1	2	2	0	0	1
MOTEL	0	0	0	0	0	1	1
OTHER	6	3	5	3	2	0	6
TOTAL	85	37	92	46	12	19	104
HOURLY EMPLOYEES							
HOUSE OWNED	33	19	54	25	15	0	33
HOUSE RENTED	31	13	56	22	6	6	37
APARTMENT RENTED	20	7	20	7	2	14	34
MOBILE HOME RENTED	12	6	13	8	0	6	18
MOBILE HOME OWNED	10	3	15	8	2	5	15
SLEEPING ROOM							
MOTEL	2	1	1	1	0	13	15
OTHER	8	3	14	2	4	4	12
TOTAL	116	52	173	73	29	48	164
ALL EMPLOYEES							
HOUSE OWNED	93	50	129	62	25	3	96
HOUSE RENTED	38	14	60	25	6	11	49
APARTMENT RENTED	28	7	23	7	2	22	50
MOBILE HOME RENTED	12	6	13	8	0	7	19
MOBILE HOME OWNED	13	4	18	9	2	6	19
SLEEPING ROOM	1	1	2	2	0	0	1
MOTEL	2	1	1	1	0	14	16
OTHER	14	6	19	5	6	4	18
TOTAL	201	89	265	119	41	67	268

1347 084

TABLE A-11

FOLLOW UP SURVEY
WORKERS WHO MOVED INTO HARTSVILLE NUCLEAR PLANT AREA PAGE 018

DAVIDSON
EMPLOYEES LIVING WITHIN THE COUNTY - TOTAL REPORT 1E
ACTIVE EMPLOYEES 03-31-79 RUN DATE 06/06/79
RUN TIME 080925

	MOVERS WITH FAMILY	WITH CHILDREN IN SCHOOL	TOTAL NUMBER OF CHILDREN	CHILDREN IN GRADE SCHOOL	CHILDREN IN HIGH SCHOOL	MOVERS WITHOUT FAMILY	TOTAL MOVERS
ANNUAL EMPLOYEES							
HOUSE OWNED	2	0	1	0	0	0	2
HOUSE RENTED	2	0	2	0	0	0	2
APARTMENT RENTED	4	0	0	0	0	10	14
MOBILE HOME RENTED							
MOBILE HOME OWNED							
SLEEPING ROOM							
MOTEL							
OTHER	0	0	0	0	0	5	5
TOTAL	8	0	3	0	0	15	23
HOURLY EMPLOYEES							
HOUSE OWNED	19	12	25	13	8	2	21
HOUSE RENTED	31	13	30	17	2	7	38
APARTMENT RENTED	17	3	7	2	1	17	34
MOBILE HOME RENTED	6	2	6	2	0	0	6
MOBILE HOME OWNED	3	1	4	1	0	2	5
SLEEPING ROOM	1	1	3	3	0	3	4
MOTEL	1	1	1	1	0	3	4
OTHER	3	1	4	2	0	6	9
TOTAL	81	34	80	41	11	40	121
ALL EMPLOYEES							
HOUSE OWNED	21	12	26	13	8	2	23
HOUSE RENTED	33	13	32	17	2	7	40
APARTMENT RENTED	21	3	7	2	1	27	48
MOBILE HOME RENTED	6	2	6	2	0	0	6
MOBILE HOME OWNED	3	1	4	1	0	2	5
SLEEPING ROOM	1	1	3	3	0	3	4
MOTEL	1	1	1	1	0	3	4
OTHER	3	1	4	2	0	11	14
TOTAL	89	34	83	41	11	55	144

1347 085

TABLE A-12

FOLLOW UP SURVEY
WORKERS WHO MOVED INTO HARTSVILLE NUCLEAR PLANT AREA PAGE 001

CARTPAGE
EMPLOYEES LIVING WITHIN THE CITY LIMITS
ACTIVE EMPLOYEES 03-31-79
RUN DATE 08/06/79
REPORT 1A
RUN TIME 080925

	MOVERS WITH FAMILY	WITH CHILDREN IN SCHOOL	TOTAL NUMBER OF CHILDREN	CHILDREN IN GRADE SCHOOL	CHILDREN IN HIGH SCHOOL	MOVERS WITHOUT FAMILY	TOTAL MOVERS
ANNUAL EMPLOYEES							
HOUSE OWNED	0	0	0	0	0	1	1
HOUSE RENTED	1	1	2	0	1	2	3
APARTMENT RENTED	0	0	0	0	0	2	2
MOBILE HOME RENTED							
MOBILE HOME OWNED	1	0	0	0	0	0	1
SLEEPING ROOM	0	0	0	0	0	1	1
MOTEL							
OTHER							
TOTAL	2	1	2	0	1	6	8
HOURLY EMPLOYEES							
HOUSE OWNED	3	2	5	4	1	0	3
HOUSE RENTED	5	2	5	3	0	2	7
APARTMENT RENTED	1	0	0	0	0	4	5
MOBILE HOME RENTED	3	0	1	0	0	5	8
MOBILE HOME OWNED	5	2	4	2	0	6	11
SLEEPING ROOM	0	0	0	0	0	4	4
MOTEL	1	1	1	1	0	1	2
OTHER	2	1	3	1	0	1	3
TOTAL	20	8	19	11	1	23	43
ALL EMPLOYEES							
HOUSE OWNED	3	2	5	4	1	1	4
HOUSE RENTED	6	3	7	3	1	4	10
APARTMENT RENTED	1	0	0	0	0	6	7
MOBILE HOME RENTED	3	0	1	0	0	5	8
MOBILE HOME OWNED	6	2	4	2	0	6	12
SLEEPING ROOM	0	0	0	0	0	5	5
MOTEL	1	1	1	1	0	1	2
OTHER	2	1	3	1	0	1	3
TOTAL	22	9	21	11	2	29	51

1347 086

TABLE A-13

FOLLOW UP SURVEY
WORKERS WHO MOVED INTO HARTSVILLE NUCLEAR PLANT AREA PAGE 002

GALLATIN
EMPLOYEES LIVING WITHIN THE CITY LIMITS
ACTIVE EMPLOYEES 03-31-79

RUN DATE 08/06/79
REPORT 1A
RUN TIME 080925

	MOVERS WITH FAMILY	WITH CHILDREN IN SCHOOL	TOTAL NUMBER OF CHILDREN	CHILDREN IN GRADE SCHOOL	CHILDREN IN HIGH SCHOOL	MOVERS WITHOUT FAMILY	TOTAL MOVERS
ANNUAL EMPLOYEES							
HOUSE OWNED	37	13	43	17	4	5	42
HOUSE RENTED	6	3	6	2	2	1	7
APARTMENT RENTED	7	3	4	1	0	5	12
MOBILE HOME RENTED	0	0	0	0	0	1	1
MOBILE HOME OWNED	5	0	3	0	0	1	6
SLEEPING ROOM	0	0	0	0	0	2	2
MOTEL	0	0	0	0	0	1	1
OTHER							
TOTAL	55	17	56	20	6	16	71
HOURLY EMPLOYEES							
HOUSE OWNED	31	16	54	15	10	2	33
HOUSE RENTED	24	12	34	14	7	4	28
APARTMENT RENTED	16	4	12	4	0	7	23
MOBILE HOME RENTED	2	1	2	1	0	3	5
MOBILE HOME OWNED	3	1	4	0	2	0	3
SLEEPING ROOM	2	1	2	2	0	1	3
MOTEL	2	0	0	0	0	4	6
OTHER	3	1	1	1	0	2	5
TOTAL	83	36	109	37	19	23	106
ALL EMPLOYEES							
HOUSE OWNED	68	29	97	32	14	7	75
HOUSE RENTED	30	15	40	16	9	5	35
APARTMENT RENTED	23	5	16	5	0	12	35
MOBILE HOME RENTED	2	1	2	1	0	4	6
MOBILE HOME OWNED	8	1	7	0	2	1	9
SLEEPING ROOM	2	1	2	2	0	3	5
MOTEL	2	0	0	0	0	5	7
OTHER	3	1	1	1	0	2	5
TOTAL	138	53	165	57	25	39	177

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TABLE A-14

FOLLOW UP SURVEY
WORKERS WHO MOVED INTO HARTSVILLE NUCLEAR PLANT AREA PAGE 003

HARTSVILLE
EMPLOYEES LIVING WITHIN THE CITY LIMITS
ACTIVE EMPLOYEES 03-31-79
RUN DATE 08/06/79
REPORT 1A
RUN TIME 080925

	MOVERS WITH FAMILY	WITH CHILDREN IN SCHOOL	TOTAL NUMBER OF CHILDREN	CHILDREN IN GRADE SCHOOL	CHILDREN IN HIGH SCHOOL	MOVERS WITHOUT FAMILY	TOTAL MOVERS
ANNUAL EMPLOYEES							
HOUSE OWNED	4	1	4	1	0	0	4
HOUSE RENTED	3	0	3	0	0	0	3
APARTMENT RENTED	5	0	0	0	0	11	16
MOBILE HOME RENTED	0	0	0	0	0	4	4
MOBILE HOME OWNED	2	1	2	2	0	5	7
SLEEPING ROOM	0	0	0	0	0	2	2
MOTEL	0	0	0	0	0	1	1
OTHER							
TOTAL	14	2	9	3	0	23	37
HOURLY EMPLOYEES							
HOUSE OWNED	11	4	11	4	3	1	12
HOUSE RENTED	12	8	18	11	4	6	18
APARTMENT RENTED	16	2	3	1	1	28	44
MOBILE HOME RENTED	30	9	35	11	3	34	64
MOBILE HOME OWNED	17	8	17	8	4	10	27
SLEEPING ROOM	2	0	0	0	0	5	7
MOTEL	4	1	2	1	0	10	14
OTHER	1	0	1	0	0	5	6
TOTAL	93	32	87	36	15	99	192
ALL EMPLOYEES							
HOUSE OWNED	15	5	15	5	3	1	16
HOUSE RENTED	15	8	21	11	4	6	21
APARTMENT RENTED	21	2	3	1	1	39	60
MOBILE HOME RENTED	30	9	35	11	3	38	68
MOBILE HOME OWNED	19	9	19	10	4	15	34
SLEEPING ROOM	2	0	0	0	0	7	9
MOTEL	4	1	2	1	0	11	15
OTHER	1	0	1	0	0	5	6
TOTAL	107	34	96	39	15	122	229

1347 088

TABLE A- 15

FOLLOW UP SURVEY
WORKERS WHO MOVED INTO HARTSVILLE NUCLEAR PLANT AREA PAGE 004

LAFAYETTE
EMPLOYEES LIVING WITHIN THE CITY LIMITS
ACTIVE EMPLOYEES 03-31-79

RUN DATE 08/06/79
REPORT 1A
RUN TIME 080925

	MOVERS WITH FAMILY	WITH CHILDREN IN SCHOOL	TOTAL NUMBER OF CHILDREN	CHILDREN IN GRADE SCHOOL	CHILDREN IN HIGH SCHOOL	MOVERS WITHOUT FAMILY	TOTAL MOVERS
ANNUAL EMPLOYEES							
HOUSE OWNED	5	1	4	2	0	0	5
HOUSE RENTED	2	2	3	2	0	0	2
APARTMENT RENTED	1	0	0	0	0	0	1
MOBILE HOME RENTED							
MOBILE HOME OWNED							
SLEEPING ROOM							
MOTEL							
OTHER							
TOTAL	8	3	7	4	0	0	8
HOURLY EMPLOYEES							
HOUSE OWNED	15	9	29	19	6	1	16
HOUSE RENTED	4	1	10	2	4	1	5
APARTMENT RENTED	3	1	3	2	0	1	4
MOBILE HOME RENTED	13	7	19	8	3	5	18
MOBILE HOME OWNED	1	1	1	1	0	1	2
SLEEPING ROOM	0	0	0	0	0	2	2
MOTEL	0	0	0	0	0	2	2
OTHER	0	0	0	0	0	1	1
TOTAL	36	19	62	32	13	14	50
ALL EMPLOYEES							
HOUSE OWNED	20	10	33	21	6	1	21
HOUSE RENTED	6	3	13	4	4	1	7
APARTMENT RENTED	4	1	3	2	0	1	5
MOBILE HOME RENTED	13	7	19	8	3	5	18
MOBILE HOME OWNED	1	1	1	1	0	1	2
SLEEPING ROOM	0	0	0	0	0	2	2
MOTEL	0	0	0	0	0	2	2
OTHER	0	0	0	0	0	1	1
TOTAL	44	22	69	36	13	14	58

1347 089

TABLE A-16

FOLLOW UP SURVEY
WORKERS WHO MOVED INTO HARTSVILLE NUCLEAR PLANT AREA PAGE 005

LEBANON
EMPLOYEES LIVING WITHIN THE CITY LIMITS
ACTIVE EMPLOYEES 03-31-79

RUN DATE 08/06/79
REPORT 1A
RUN TIME 080925

	MOVERS WITH FAMILY	WITH CHILDREN IN SCHOOL	TOTAL NUMBER OF CHILDREN	CHILDREN IN GRADE SCHOOL	CHILDREN IN HIGH SCHOOL	MOVERS WITHOUT FAMILY	TOTAL MOVERS
ANNUAL EMPLOYEES							
HOUSE OWNED	10	3	8	4	1	0	10
HOUSE RENTED	2	1	4	3	0	1	3
APARTMENT RENTED	5	0	1	0	0	6	11
MOBILE HOME RENTED							
MOBILE HOME OWNED	1	0	0	0	0	1	2
SLEEPING ROOM							
MOTEL	0	0	0	0	0	1	1
OTHER	4	1	2	1	0	0	4
TOTAL	22	5	15	8	1	9	31
HOURLY EMPLOYEES							
HOUSE OWNED	4	2	11	6	2	0	4
HOUSE RENTED	16	8	31	14	5	2	18
APARTMENT RENTED	9	2	9	2	1	10	19
MOBILE HOME RENTED	2	1	2	1	0	1	3
MOBILE HOME OWNED	2	0	0	0	0	1	3
SLEEPING ROOM							
MOTEL	2	1	1	1	0	9	11
OTHER	1	0	0	0	0	0	1
TOTAL	36	14	54	24	8	23	59
ALL EMPLOYEES							
HOUSE OWNED	14	5	19	10	3	0	14
HOUSE RENTED	18	9	35	17	5	3	21
APARTMENT RENTED	14	2	10	2	1	16	30
MOBILE HOME RENTED	2	1	2	1	0	1	3
MOBILE HOME OWNED	3	0	0	0	0	2	5
SLEEPING ROOM							
MOTEL	2	1	1	1	0	10	12
OTHER	5	1	2	1	0	0	5
TOTAL	58	19	69	32	9	32	90

1347 090

TABLE A-17

FOLLOW UP SURVEY
WORKERS WHO MOVED INTO HARTSVILLE NUCLEAR PLANT AREA PAGE 016

HENDERSONVILLE
EMPLOYEES LIVING WITHIN CITY LIMITS
ACTIVE EMPLOYEES 03-31-79

RUN DATE 08/06/79
REPORT 10
RUN TIME 080925

	MOVERS WITH FAMILY	WITH CHILDREN IN SCHOOL	TOTAL NUMBER OF CHILDREN	CHILDREN IN GRADE SCHOOL	CHILDREN IN HIGH SCHOOL	MOVERS WITHOUT FAMILY	TOTAL MOVERS
ANNUAL EMPLOYEES							
HOUSE OWNED	5	2	5	2	1	1	6
HOUSE RENTED	2	1	2	1	0	0	2
APARTMENT RENTED	12	3	8	4	1	15	27
MOBILE HOME RENTED							
MOBILE HOME OWNED							
SLEEPING ROOM							
MOTEL							
OTHER							
TOTAL	19	6	15	7	2	16	35
HOURLY EMPLOYEES							
HOUSE OWNED	13	11	30	17	4	1	14
HOUSE RENTED	5	4	9	6	1	0	5
APARTMENT RENTED	13	6	20	11	3	10	23
MOBILE HOME RENTED	1	1	3	1	0	0	1
MOBILE HOME OWNED	3	2	3	5	0	0	3
SLEEPING ROOM							
MOTEL	2	0	1	0	0	2	4
OTHER	0	0	0	0	0	1	1
TOTAL	37	24	66	40	8	14	51
ALL EMPLOYEES							
HOUSE OWNED	18	13	35	19	5	2	20
HOUSE RENTED	7	5	11	7	1	0	7
APARTMENT RENTED	25	9	28	15	4	25	50
MOBILE HOME RENTED	1	1	3	1	0	0	1
MOBILE HOME OWNED	3	2	3	5	0	0	3
SLEEPING ROOM							
MOTEL	2	0	1	0	0	2	4
OTHER	0	0	0	0	0	1	1
TOTAL	56	30	81	47	10	30	86

1347 091

TABLE A-18

FOLLOW UP SURVEY
WORKERS WHO MOVED INTO HARTSVILLE NUCLEAR PLANT AREA PAGE 017

NASHVILLE
EMPLOYEES LIVING WITHIN CITY LIMITS
ACTIVE EMPLOYEES 03-31-79

RUN DATE 08/06/79
REPORT 10
RUN TIME 080925

	MOVERS WITH FAMILY	WITH CHILDREN IN SCHOOL	TOTAL NUMBER OF CHILDREN	CHILDREN IN GRADE SCHOOL	CHILDREN IN HIGH SCHOOL	MOVERS WITHOUT FAMILY	TOTAL MOVERS
ANNUAL EMPLOYEES							
HOUSE OWNED	2	0	1	0	0	0	2
HOUSE RENTED							
APARTMENT RENTED	1	0	0	0	0	5	6
MOBILE HOME RENTED							
MOBILE HOME OWNED							
SLEEPING ROOM							
MOTEL							
OTHER	0	0	0	0	0	4	4
TOTAL	3	0	1	0	0	9	12
HOURLY EMPLOYEES							
HOUSE OWNED	7	6	14	8	3	1	8
HOUSE RENTED	20	8	18	11	2	5	25
APARTMENT RENTED	9	0	1	0	0	9	18
MOBILE HOME RENTED	2	1	2	1	0	0	2
MOBILE HOME OWNED	1	0	1	0	0	0	1
SLEEPING ROOM	0	0	0	0	0	2	2
MOTEL	0	0	0	0	0	2	2
OTHER	2	0	1	0	0	2	4
TOTAL	41	15	37	20	5	21	62
ALL EMPLOYEES							
HOUSE OWNED	9	6	15	8	3	1	10
HOUSE RENTED	20	8	18	11	2	5	25
APARTMENT RENTED	10	0	1	0	0	14	24
MOBILE HOME RENTED	2	1	2	1	0	0	2
MOBILE HOME OWNED	1	0	1	0	0	0	1
SLEEPING ROOM	0	0	0	0	0	2	2
MOTEL	0	0	0	0	0	2	2
OTHER	2	0	1	0	0	6	8
TOTAL	44	15	38	20	5	30	74

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Appendix B

SECONDARY SOCIOECONOMIC IMPACT MONITORING
OF HARTSVILLE NUCLEAR PLANT ENVIRONMENTAL IMPACT AREA

Secondary impact is defined as a temporary increase in the trade and service related resident population of the five-county area having an impact on community facilities and services which can be attributed to the Hartsville construction project.

TVA's monitoring program consists of a three-step procedure during each reporting period for estimating and reconciling population changes for each of the impact area counties. Residential customers of power distributors and school enrollment are used to provide independent estimates of county residential population change during a given reporting period. Population for the beginning of the first reporting period is estimated by applying the procedure outlined in Step I below to the most current estimate of county population provided by U.S. Bureau of the Census Current Population Reports. Subsequent estimates of population for the start of a reporting period is the TVA-estimate at the end of the previous reporting period and is adjusted each time more current census estimates are available.

An estimate of secondary impact is made using the following three-steps process.

Step I

Ratios of school enrollment and residential customers to population is calculated at the beginning of the reporting period for each of the impact area counties. These ratios are applied to the number of residential

customers and school enrollment at the end of the period. This yields two estimates of population change during the reporting period. These two estimates are averaged to produce a single estimate of population change for each of the impact area counties.

Step II

Primary employment population, taken from TVA employee surveys, is subtracted from total adjusted population. If a residual population is derived, the analysis will continue to Step III.

Step III

This step comprises an analysis of nonproject related primary employment and its secondary effect to determine what part of the remaining unexplained population change should not be attributed to the project.

An estimate of change in total employment in each of the impact area counties during the reporting period is made using monthly data from the "CPS Labor Force Summary" produced by the Tennessee Department of Employment Security. In order to determine that part of the change in total employment which can be attributed to forces other than the construction project, it is necessary to estimate the change in nonproject related employment. Change in nonprojected related primary employment is estimated using a linear interpolation of primary employment as a percent of total employment in 1970 and projected to 1980, as given in the 1974 report by the Tennessee State Planning Office, Tennessee Mitigation, Population Families, Income, and Manpower Demand Projection to 1990 for Development Districts and Counties. A ratio of .65 will be applied to the

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change in nonproject related primary employment to determine that part of the change in secondary employment which can be considered nonproject related. The total employment change is converted to population using an average family size of three and subtracted from any unexplained population remaining. If no other reason exists for the remaining population it will be considered as secondary impact.

As results of the 1980 Census of Population or any other special census of census estimates are published, the population base of the impact area counties will be recalibrated. Residential customers, school enrollment, and total population will be recorrelated. Essentially, a new population base will be established from which to measure change throughout the remainder of the monitoring period.

1347 095

Appendix C

TRAFFIC LEVEL DEFINEDLevel of Service D

Level of service D approaches unstable flow, with tolerable operating speeds being maintained though considerably affected by changes in operating conditions. Fluctuations in volume and temporary restrictions to flow may cause substantial drops in operating speeds. Drivers have little freedom to maneuver, and comfort and convenience are low, but conditions can be tolerated for short periods of time.

Source: Highway Capacity Manual, Highway Research Board
Special Report 87, 1965.

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