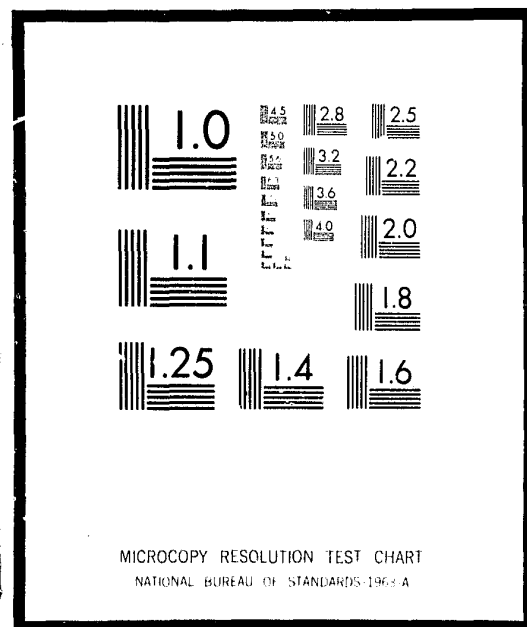


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U.S. DEPARTMENT OF JUSTICE
LAW ENFORCEMENT ASSISTANCE ADMINISTRATION
NATIONAL CRIMINAL JUSTICE REFERENCE SERVICE
WASHINGTON, D.C. 20531

1/4/77
Date filmed

LAW ENFORCEMENT ASSISTANCE ADMINISTRATION POLICE TECHNICAL ASSISTANCE REPORT

SUBJECT: Hartsville, Tennessee; Law Enforcement Manpower Requirements Analysis in a Five-County Impact Area (Counties of Macon, Smith, Sumner, Trousdale, and Wilson, Tennessee)

REPORT NUMBER: 76-117

FOR: Hartsville Project Coordinating Committee
Impact Area Population: 123,262 (1970)
153,900 (1976 est.)
Staff Strength (Sworn): 182 (all agencies)
Total: 233 (all agencies)
Five-County Area: 1,844 Square Miles

NCJRS

AUG 18 1976

AC

CONTRACTOR: Westinghouse Justice Institute

CONSULTANTS: Philip D. DeWitt
Larry R. Walton

CONTRACT NUMBER: J-LEAA-003-76

DATE: August 1976

35879

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FOREWORD

This request for Technical Assistance was made by the Hartsville Project Coordination Committee. The requested assistance was concerned with forecasting the law enforcement needs in a five-county area and assessing the particular impact of the Hartsville Nuclear Plant (to be the world's largest).

Requesting Agency: Hartsville Project Coordination Committee,
Mr. Frank McKee, Executive Director,

State Planning Agency: Law Enforcement Planning Agency,
Mr. Harry D. Mansfield, Director;
Mr. Gary Hall

Approving Agency: LEAA Region IV (Atlanta),
Mr. Ben A. Jordan, Director, Program
Development and Technical Assistance
Division; Mr. John A. Gregory, Police
Specialist

1. INTRODUCTION

The Hartsville Nuclear Plant, valued at more than \$2.5 billion, will be not only the world's largest nuclear power plant but also the largest construction project in the history of Tennessee. The plant will cover 2,200 acres and employ more than 5,000 workers during peak years of construction.

The major impacts of the plant construction will be contained in five counties of north central Tennessee: Macon, Smith, Sumner, Trousdale, and Wilson (see Figure 1-1). The plant site is roughly 45 air miles from Nashville.

Throughout the review processes preceding construction, there has been loud criticism and opposition to the project. The residents of the impact area, however, favor the plant -- nearly 56 percent for and only 18 percent opposed.*

The area is geographically and, to some extent, culturally a part of the southern Appalachian Region. The economy has been traditionally based on agriculture and trade; but in recent years, industrial development has become an element to be considered. A declining population trend of past decades has been reversed (the Mid-Cumberland Region is the fastest growing area in the State according to the Tennessee State Planning Commission); and the proximity of Nashville has tended to increase the rate of urbanization, residential development, and recreational use of the area, particularly in Sumner County. With the exception of the larger law enforcement agencies in the area, agencies are generally rurally oriented in nature, with modest, even skimpy, budgets and staff. Data characterizing the law enforcement agencies of the area are given in Appendix A.

All of the ten law enforcement agencies considered in this study have radio communications and most have terminal access to State computerized criminal information files. The city agencies uniformly rely upon their respective Sheriffs to provide and operate jail facilities.

The Hartsville Project Coordination Committee was organized by the officials of the 5 counties and the 16 incorporated municipalities within the impact area. The committee is supported by the Tennessee Valley Authority (TVA). The purposes for its formation were:

*The Tennessean, October 23, 1975, p. 10.

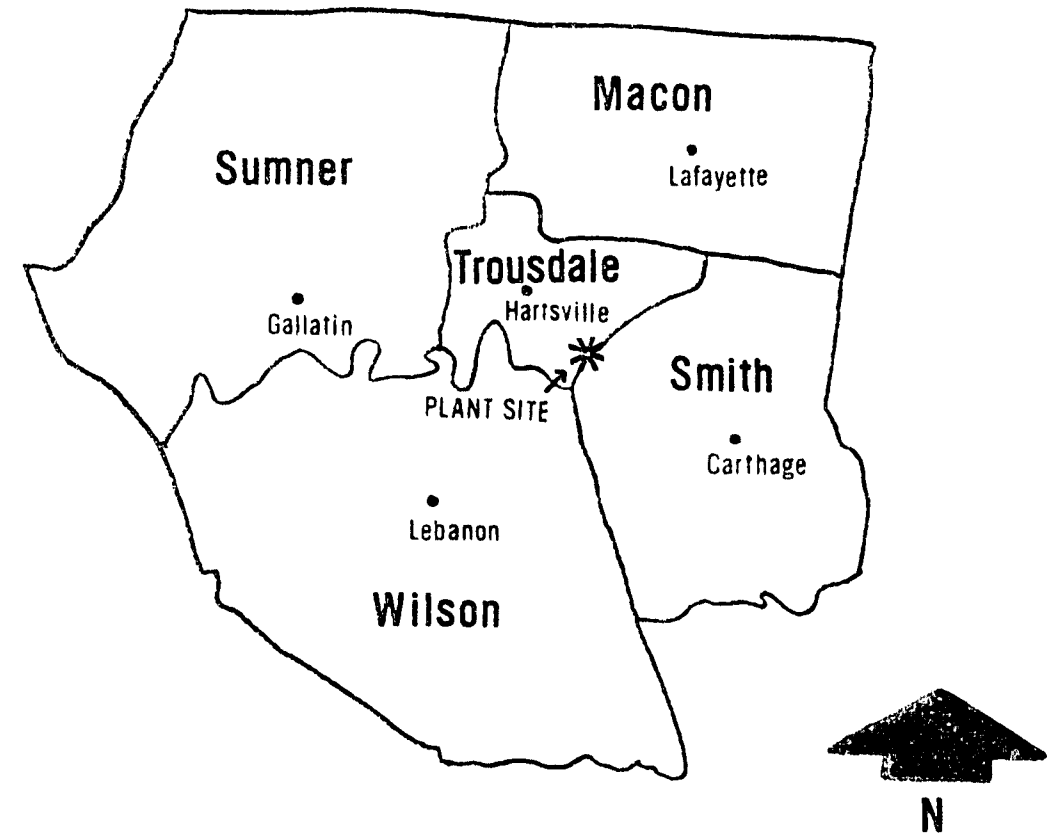


Figure 1-1. Five-County Impact Area

- To provide a forum for information and communication among local governments and the TVA in the five-county impact area associated with the Hartsville Nuclear Plant.
- To assist the TVA in developing specific procedures for timely mitigation of socio-economic impacts.
- To monitor, in conjunction with the TVA, the socioeconomic impacts of the construction projects as they might occur and to identify areas where mitigation programs need to be developed, modified, or adjusted to meet altered projections or changed conditions.
- To help develop the capability of local governments to identify and capitalize on the developmental opportunities afforded by the construction project.
- To suggest alternative methods of combining TVA mitigation programs with long-range planning where appropriate.
- To develop staff capabilities to respond to the needs of the corporation in a timely, efficient, and professional manner.

The Hartsville Project Coordination Committee requested this technical assistance study.

Conclusions and recommendations developed in this study were based on interviews with representatives of involved agencies; inspections of police facilities in each county; a review of available statistical reports; examination of pertinent previous supportive studies; and analysis of population trends, policing problems, and existing police staffing levels.

The following persons listed under their respective affiliations were interviewed in connection with this study:

- Hartsville Project Coordination Committee.
 - Frank McKee, Director.
 - Becky Claridy, Secretary.
 - John Estes, Intern.

- Mid Cumberland Development District.
 - Richard Curran, Attorney-Economist.
 - Tom Waychoff, Law Enforcement Planner.
 - Donny Sloan, Assistant Law Enforcement Planner.
- Upper Cumberland Development District.
 - Leo Campbell, Police Planner.
 - Roy McKuhen, Police Planner.
- University of Tennessee -- Municipal Technical Advisory Service.
 - Roger Moore, Law Enforcement Consultant.
 - Lawson White, Law Enforcement Consultant.
- Macon County.
 - Sheriff Hollis McClard.
- Smith County.
 - Bruce Dunn, Smith County Planning Commission.
 - Sheriff Joe Hackett.
- Sumner County.
 - Sheriff Mayo Wix.
- Trousdale County.
 - Sheriff Charles Robinson.
- Wilson County.
 - Sheriff Gwin King.
- Carthage.
 - Mayor James Clay.
- Gallatin.
 - Chief of Police James R. Brazier.
 - Assistant Chief of Police Wayne Womack.

- Hartsville.
 - Larry Turnbow, Hartsville Police Department.
- Lafayette.
 - Mayor Page Durham.
 - Mrs. Durham.
 - Chief of Police Norman Farley.
- Lebanon.
 - Police Lieutenant T. Owens.
 - Charles Tomlinson, Police Community Relations Unit.

In addition to onsite inspections and interviews, a meeting was held at the Hartsville Project Coordination Committee office to discuss impact problems pertaining to law enforcement. This meeting was attended by 18 of the above individuals.

Data collected and reviewed by the Consultants included the following:

- Survey of Local Governmental Services, Hartsville Project Coordination Committee, April 1976.
- Mid-Cumberland Development District Annual Report, 1976.
- Upper Cumberland Development District Annual Report, 1976.
- Hartsville Project Socioeconomic Impact Mitigation Action, Tennessee Valley Authority.
- Estimated Movers, School-Age Children and Total Population Associated With Construction Employment at the Hartsville Nuclear Plant, Tennessee Valley Authority.
- Final Environmental Statement: Hartsville Nuclear Plants, Tennessee Valley Authority.
- Final Environmental Statement: Hartsville Nuclear Plants, U.S. Nuclear Regulatory Commission.

- Rapid Growth From Energy Projects,
Department of Housing and Urban
Development.
- Memorandum -- Secondary Employees,
Director Hartsville Project Coordina-
tion Committee to other Committee members.
- Recommended Law Enforcement Response to
the Hartsville Nuclear Power Plant Con-
struction - Hartsville. University of
Tennessee Municipal Technical Advisory
Service.
- Problems Likely to be Encountered by the
Trousdale County Sheriff's Department
Related to the Hartsville Nuclear Power
Plant Construction, University of Tennessee
Municipal Technical Advisory Service.
- Law Enforcement Staffing Levels in the five-
county area.
- Law Enforcement Personnel Salaries in the
five-county area.
- Reported Index Crime in the five-county
area, by jurisdiction, 1975.
- Population Tables for the five-county area.
- Newspaper articles from all regional papers
describing project progress and local reactions
over roughly a 2-year period prior to this
Technical Assistance assignment.

2. UNDERSTANDING OF THE PROBLEM

The nuclear power generating plants under construction by the Tennessee Valley Authority (TVA) are located approximately 10 miles east of Hartsville along State Highway 25 between Hartsville and Carthage. The actual site lies within both Smith and Trousdale Counties. To provide liaison between the general public and TVA, local elected officials formed the Hartsville Project Coordination Committee and hired a director and secretary (funded by TVA).

In January 1976, TVA furnished this Committee a document, entitled "Hartsville Project Socioeconomic Impact Mitigation Action." Specific items of action identified for mitigation of the socioeconomic impacts included:

- Housing.
- Resident Training and Recruitment.
- Education.
- Waste Water and Sewer Treatment Facilities.
- Local Government Budgets.
- Health and Medical Services.
- Employee Transportation.
- Local Planning Assistance.
- Hartsville Project Committee.

Assistance to local law enforcement agencies was included within the "Local Government Budgets" program, which also contains fire protection, solid waste, and possibly other local costs. Support for these by TVA would be based upon increased increments of residential population.

The fact that some assistance is required is unquestioned. The TVA studies concluded that while additional local revenue would be generated by the project, "small community additional costs for law enforcement, fire protection and solid waste [will] exceed revenues by a ration of 3 to 1."* The Nuclear Regulatory Commission concurred "The staff ... recognizes that providing the necessary facilities ...

*TVA, Final Environmental Statement, pp. 4-34.

even on a temporary basis could result in long-term commitments and economic and social burdens for the affected communities."*

The Coordination Committee foresaw significant law enforcement problems and felt insufficient attention had been given this area by the TVA mitigation plan. To obtain a deeper probe of impact in this specific area, they requested this study.

At this time, there is very little reliable or detailed information available upon which to base predictions. Information provided by TVA specifies such projections as the number of construction employees, their families, and school-age children, but makes only general assertions about where this population influx will probably settle.

The data provided have been taken at face value; but certain interpolations, extrapolations, and averages were necessary, because the data were drawn for different base years or were offered for intervals not immediately usable in the analysis at hand. Therefore, the reader is cautioned that while the estimates have been based upon the best information available, these projections should be refined throughout the project life-time with refreshed data.

As one measure of future law enforcement impact, estimates of residential settlements by the influx of workers were used. Projections by TVA for the patterns of worker settlement are probably accurate only at a gross level. Furthermore, location of residence is not a desirable base for determining the geographical location of police incidents. Traffic congestion and accidents, business disputes, and public entertainment locations are related to location of residence of the involved persons only in the most general sense; however, these are the data available.

The lack of specific information about future workers also clouds the issue. Certainly, a 35-year-old skilled worker, church-going father of two children is less likely to become involved with the police than a 24-year-old unskilled worker who has no family and a minor police record. Only time will reveal a "profile" of the typical worker and his tendency to become involved in police incidents. It is interesting to note that the construction workers moving into the area will have incomes

*U.S. Nuclear Regulatory Commission, Final Environmental Statement, pp. 4-16.

significantly higher than the present population. Thus, their alien socioeconomic composition further clouds the issue of forecasting crime and crime problems.

The TVA used its experiences at the Cumberland Steam Plant to estimate the proportion of construction workers moving into the area. At the heart of the matter is an assumption that many of the skilled workers (living now in Nashville) will commute, rather than absorb the costs of relocation. TVA experience has shown this to be a reasonable assumption. However, this judgement is tempered with an acknowledgment that gasoline prices or shortages may alter this basic premise.

In addition, the westernmost portions of Sumner County are drawing an increasing number of metropolitan Nashville residents. It is altogether possible that many "Nashville-based" construction workers may take up residence in Sumner County, without such a move having the normal characteristics or inconveniences of a relocation. If this proves true, the TVA estimates may be somewhat low. A suggestion that this may be happening was reported recently: "The number of building permits for new houses in Sumner County increased sharply last month in anticipation of the Tennessee Valley Authority's beginning work on its Hartsville nuclear plant."*

The absence of accurate police statistics also renders more difficult attempts to relate existing police problems to future needs. In some cases, the problem is suspected to be inaccurate reporting; in other cases, the difficulty appears to be a total lack of reporting. In the overall picture, it is safe to say that most law enforcement agencies in the five-county area are not accurately and completely reporting crimes and other police incidents that should be considered in evaluating the impact of new TVA employees on the area.

As a result of these difficulties in developing a truly sound base for predicting future trends and related needs, reliance must be placed at this time almost exclusively on population projections based on data provided by TVA and the Mid-Cumberland and Upper Cumberland Development Districts. It should be stressed that mere increases in population relate only in a general manner to the incidence, the location, or the type of police problems to be encountered.

Therefore, this report considers two time periods: The forthcoming year during which only general assumptions can be made; and the subsequent period of the project for which, hopefully, adequate data for analysis purposes can be made available.

*The Nashville Banner, April 19, 1976, p. 19.

3. ANALYSIS OF THE PROBLEM

3.1 General Policing Needs

The availability and limited accuracy of pertinent data have been discussed. Therefore, it should be recognized that conclusions and recommendations must, by necessity, be somewhat general. In addition, any meaningful recommendations for increases in personnel to respond to TVA-induced problems should be calculated on the basis of what an effective level of police effort would be independent of the impact caused by TVA. Therefore, it would be most appropriate first to discuss general policing needs in the area. In this regard, there are two ratios of interest:

- Comparison with the national ratio for sheriff's department employees per 1,000 total county population (1.6 in 1974). Figures were not available on a regional basis for sheriff's departments, nor for various population groups.
- Comparison with national and regional ratios for law enforcement employees per 1,000 population with specific rates calculated for cities under 10,000 populations, 10,000-25,000 population, 25,000-50,000 population, and so on. In relating this comparison to a sheriff's department, population policed by a municipal police department in the county is not included in determining either the population group or in applying the appropriate ratio to "population served." For example, a county having 20,000 residents, 11,000 of whom live in a city with a police department, would be considered as a jurisdiction with a 9,000 population to be served by the sheriff for law enforcement. Since the most recent reported ratio for cities under 10,000 in the East-South-Central portion of the country was 2.4, this ratio would be applied to the 9,000 population served.

The first ratio described, calculated only on a national basis, is not sufficiently accurate when applied to a specific county. It fails to take into account population of the county, economy of the area, particular needs of the region, duties of a particular sheriff's office (which vary drastically from jurisdiction to jurisdiction), or even percentage of a county population served by a municipal police department. As a consequence, it is deemed to be of only very limited value for reviewing policing needs. However, when applied to terms of need, this ratio will generally indicate

a need for more personnel than the second ratio. The second ratio, calculated on a regional basis by population group, is more meaningful. It is based on police departments, however, and does not take into consideration the additional duties performed by most sheriffs' departments (i.e., operation of the county jail, service of civil papers, transportation of prisoners to and from the courts and to prison, etc.). In counties such as Macon, Smith, Sumner, Trousdale, and Wilson where the sheriff performs the full range of police duties, plus those duties peculiar to his office, application of this ratio in most cases will indicate a need for less personnel than the first ratio discussed. When considering the appropriateness of these rates and the practicalities of budgeting problems of city and county legislative bodies, it is the Consultants' opinion that the second rate described is the more meaningful of the two. It should be stressed, however, that projections made on this rate for sheriffs' departments are in the nature of minimum rates, since allowance is not made for those special duties performed only by sheriffs' departments.

The latest annual FBI report* indicated that the national ratio of police employees per 1,000 population was 2.5. For cities in the East-South-Central portion of the country, including Tennessee, the ratio was 2.3 police employees per 1,000 population. Within this area, cities under 10,000 population had a ratio of 2.4; cities with a population between 10,000 and 25,000 had a ratio of 2.0; and cities in the 25,000 to 50,000 population group had a ratio of 2.1. All five of the cities in this study have a police employee ratio to population in excess of the average for that size city, and all of the sheriffs' departments are seriously below average. It is recognized that rates and averages cannot be applied indiscriminately and are frequently misleading; However, in this instance, they represent the average response of similar-sized communities in the Tennessee area to their police problems. Personnel required to staff the sheriffs' departments at the average rate for similar size jurisdictions in the region of Tennessee is shown in Table 3-1.

It should be emphasized that the column in Table 3-1 entitled "Additional Personnel Needed" represents increases in staffing that if made now would bring the respective sheriffs' offices to an average level for similar communities. Use of the national ratio for sheriffs' personnel to population would have made the number of personnel needed even higher. It should be clear that the rural public in these five counties may not be receiving an appropriate level of police service,

*Crime In the United States -- 1974, Uniform Crime Reports, Federal Bureau of Investigation.

TABLE 3-1

Staff Requirements in the Five Counties

<u>County</u>	<u>Population Served</u>	<u>Applicable Ratio of Police Personnel To Population</u>	<u>Number of Present Personnel</u>	<u>Number Needed To Meet Ratio</u>	<u>Additional Personnel Needed</u>
Macon	9,931	2.0	12	20	8
Smith	10,543	2.0	12	21	9
Sumner	31,837	2.1	46	67	21
Trousdale	3,152	2.4	3	7	4
Wilson	29,129	2.1	18	61	43

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3-3

and it is evident that the sheriffs have no excess capacity to deal with any future problems that might be brought on by the construction project. Furthermore, it is apparent that normal population increases are going to make mandatory a change in attitude in terms of effectively supporting law enforcement. Reliance on the low reported crime rate (except the City of Gallatin) to serve as justification for understaffing fails to recognize that the reporting of crime in the five-county area is, in general, inaccurate and certainly incomplete.

3.2 Policing Needs Related to TVA Impact

A reasonable assumption is that a disproportionate share of the impact will be felt by the Sheriffs Offices of Trousdale and Smith Counties, and the Cities of Hartsville and Carthage. In the case of the Sheriffs' Offices traffic congestion at the power plant and on nearby county roads, new businesses established outside of the cities to escape taxes and restrictive legislation, incarceration of all persons arrested in the County, and an increased volume of civil papers to be served are some of the problems that are immediately obvious.

It should also be mentioned that the problems for these two Sheriffs' Departments are immediate. Due to their existing manpower levels, they cannot cope with the current volume of impact-related problems, let alone the levels of a year or two from now, and continue to provide an effective level of service to county residents. It would seem appropriate that emergency disbursements of funds be made now to the Trousdale and Smith County Sheriffs' Departments to provide for the hiring of additional personnel and equipment, pending a more factual review of workload in approximately 1 year. Based on the limited information available, it is the Consultants' opinion that the TVA power plant impact on the Trousdale Sheriff's Office will necessitate the hiring of at least four additional deputies during the peak impact period. It is also the Consultants' opinion that four additional deputies should be added at this time to the Trousdale Sheriff's Office in order to adequately cope with existing and rapidly emerging problems. While realizing the budget constraints of county officials, it is suggested that an informal arrangement be made between the officials of Trousdale County and TVA to share equally the cost of immediately hiring four deputies and necessary equipment. This minimum increase in personnel would provide for a reasonable level of operation, pending the gathering and analysis of factual workload data. For the same purposes, the joint funding of one deputy by Smith County and TVA would be appropriate. It is the Consultants' opinion that the TVA power plant impact will probably not be discernible to any degree in the three other counties for at least a year. In particular, if these other sheriff's departments are brought up to average levels as detailed previously, the effect should be negligible for that time period. In reference to the cities, it is believed that the TVA impact will not

be discernible in the near future except in Carthage and Hartsville. Police strength in these two cities appears to be adequate for the present. This is particularly true if the Smith and Trousdale Sheriffs' Departments are expanded as suggested. As a matter of interest, actual law enforcement salaries account for between 70 and 75 percent of the total salary cost. Workmen's Compensation, health and hospital insurance, pension benefits, and the like make up the remaining 25 to 30 percent. In terms of overall costs, total salary costs generally account for 85 to 90 percent of a law enforcement agency's budget.

In summary, although firm data are not available, near-term impact effects appear to have the potential severity to warrant an emergency "holding action," pending compilation of precise information. It is fortunate that manpower commitments to the power plant by TVA are comparatively minor (when viewed on a five-county basis) for the first year. If preliminary commitments as outlined herein are made to the Smith and Trousdale County Sheriffs' Departments to enable them to cope with immediate problems during the forthcoming year, an information-gathering system can be developed by the Hartsville Project Coordination Committee; in 10 to 12 months a more accurate and realistic determination of power plant impact can be made.

3.3 Funding

Funds advanced by TVA should be earmarked for the specific purposes intended and should not be merely deposited to the general fund of the concerned county. It should be clearly understood by all parties that funds tendered by TVA for police personnel and equipment are for personnel and equipment above and beyond normal and necessary commitments by county officials. Adequate safeguards should be established to ensure compliance.

3.4 Information-Gathering System

To accurately determine workloads of law enforcement agencies in the five-county area and to distinguish that portion of a particular workload attributable to TVA power plant employees and their families, a system of information gathering must be established. When the time necessary to implement efficient total recordkeeping systems in the various concerned law enforcement agencies is considered, a more simple solution is necessary. For those agencies with a regular, 24-hour dispatching service, use of a dispatcher's log to record all TVA involvement incidents would be appropriate. All personnel should be alerted to identify the involvement of TVA personnel and their families in all contacts and must be required to report the incident to the dispatcher, including date, time, type and location of incidents, disposition, and manhours (or minutes) devoted to the activity. The more detail included,

the more likely borderline incidents can be evaluated correctly. For agencies not staffing a 24-hour dispatching service, the individual officer probably will have to maintain a log similar to the dispatcher's log. Again, the entry of adequate detail will assist in evaluating incidents.

The Consultants recognize the difficulty of accurately attributing "TVA-relatedness" to most incidents or expended manhours or resources. Even with conservative bias, however, such a recordkeeping system will provide the agencies with a more commanding negotiating position than if no attempt is made. Obvious examples for which an attribution is unquestionable include:

- Preventative patrol in (and service calls to) trailer parks of TVA employees.
- Traffic regulation during certain periods of day at specific locations.
- Papers served on or at the project premises.

This list could certainly be expanded. It could also be expanded to include incidents related to establishments opened to capture the patronage of the construction workers (e.g., the short-lived massage parlor in Hartsville, new bars or taverns, and so on).

In addition, law enforcement agencies should adopt the policy of formally reporting all crimes regardless of severity, likelihood of apprehension of perpetrator(s), or likelihood of a successful prosecution. Any such report, as well as traffic accident reports, wherein a TVA employee or family member is identified as perpetrator or victim should be earmarked for analysis. Only by full reporting can the degree of TVA involvement be accurately determined. All dispatchers' logs, officers' logs, and earmarked report copies pertaining to TVA employees and/or family should be forwarded to a central location at least weekly for compilation. With adequate staffing, the Hartsville Project Coordination Committee could well perform this task of compilation. At the same time, a profile of TVA employees and a geographical file of residence locations should be developed from employment records. In terms of reports of police manhours devoted to the activities described above, a period of 6 manhours should be considered as a full 8-hour tour of duty, or 1 manday. This would take into consideration the time an officer spends for such things as meals and equipment maintenance. A relief factor of 1.65 is generally accepted for determining manpower needs. In other words, approximately 1.65 men are necessary to field one man 8 hours per day, 7 days per week.

4. RECOMMENDATIONS

4.1 Information-Gathering System

An immediate concern should be the development of statistical information, which will identify those persons associated with the Power Plant project if they become involved in any manner with law enforcement officials. It is, therefore, recommended that each law enforcement agency forward dispatchers' or officers' daily logs, on perhaps a weekly basis, to the Hartsville Project Coordination Committee for compilation. The information forwarded should include the following:

- Date of contact.
- Time.
- Location.
- Type of contact (e.g., citation, arrest, call for service, victime of a crime).
- Brief description of the contact.
- Identification number assigned to any reports made in connection with the contact (e.g., traffic, crime).
- Disposition of the contact.
- Officer reporting.

Copies of all crime, traffic accident, and other similar reports involving TVA personnel or their families used to formally report an incident could be forwarded to the Hartsville Project Coordination Committee for tabulation. For security purposes and for compliance with Federal laws and court decisions, copies of arrest reports should be recorded in the dispatchers' or officers' daily logs, whichever is used.

The Project Committee should also develop a statistical profile of TVA personnel and their families from TVA employment records and the above information (with due regard, however, for the privacy of the individuals). Police-type "pin maps" should be used to plot location of residence and number of persons residing at a particular location (for example, a blue pin would represent one person, a green pin a man and wife, and red pin a man, wife and one child, etc.).

To assist in the above compilation, a person familiar with statistical compilation and analysis procedures should be hired by the Project Committee. It would be helpful if such a person had a familiarity with law enforcement procedures.

It is also recommended that the concerned law enforcement agencies adopt a policy of formally reporting all crimes regardless of severity, or likelihood of a successful prosecution. Only by full reporting can the TVA impact be accurately traced in the coming years of peak employment. If these measures are taken, it is believed that a reasonably accurate estimate of impact by area could be made 1 year from the commencement of data compilation.

4.2 General Policing Needs

Regardless of the potential impact of the TVA Power Plant on law enforcement, the sheriffs' departments in the five-county area are all seriously undermanned. It is strongly recommended that attention be directed to increasing the manpower of these agencies to a point approximating that described in Section 3. This would require 8 more personnel for Macon County, 9 for Smith County, 21 for Sumner County, 4 for Trousdale County, and 43 for Wilson County. While this may seem drastic, it represents no more than gringing staffing levels to the average for similar-sized jurisdictions in the East-South-Central portion of the country. It is simply impossible for these agencies to provide any realistic level of police service to county residents and accommodate any further growth at the present staffing levels.

A major recruiting effort will be necessary in the area over the next 10 years just to keep pace with population growth based on the existing low ratios of police to population. It should also be noted that as the TVA impact lessens in 1982-1985, normal population increases will be such that the additional minimum level staffing related to the impact will be necessary to provide police services for the "regular" population. Thus, it appears that the area will not be saddled with more law enforcement personnel than necessary when the Power Plant is completed.

4.3 Policing Needs Related to TVA Impact

Lack of adequate information precludes any attempt to accurately determine needs at this time. It is clear, however, that the law enforcement agencies of Trousdale and Smith Counties, being most likely to feel the brunt of impact in the next year, should be increased in staff on an emergency basis. It is the Consultants' opinion that, pending more accurate determinations, the Trousdale Sheriff's Department should be increased by at least four deputies and the Smith County Sheriff's Department by one deputy. Of course, additional equipment would also be

be necessary. This should include at least two police vehicles for the Trousdale County Sheriff's Department. If these costs were shared equally by TVA and the respective counties, it is the Consultants' opinion that analysis of pertinent statistics 1 year later would reveal that neither party overfunded a fair share of costs. If necessary, adjustments could be made at that time.

4.4 Funding

It is recommended that funds advanced by TVA to compensate for police problems attributable to impact of the Power Plant construction on the area should be clearly labeled as to be used for hiring personnel and purchasing equipment above and beyond normal and necessary commitments by county officials.



APPENDIX A
Supportive Exhibits

TABLE A-1

Law Enforcement Agency Data
As Reported

Jurisdiction	Counties						Cities (County Seats)			
	Macon	Smith	Sumner	Trousdale	Wilson	Carthage	Gallatin	Hartsville	Lafayette	Lebanon
Square Miles	304	325	534	114	567	5*	9.6	3.4	16*	7*
1975 Est. Population	13,487	13,902	70,965	5,395	44,612	2,500	13,380	2,243	2,600	12,492
Pop. Served	9,931	10,543	31,837	3,152	29,129	2,500	13,380	2,243	2,600	12,492
Sworn Personnel	9	7	32	3	13	6	29	6	7	27
Civilian Personnel	3	5	14	0	5	0	5	3	0	0
Total Personnel	12	12	46	3	18	6	34	9	7	27
Total Personnel per 1,000 Pop. Served	1.21	1.14	1.44	.95	.62	2.40	2.54	4.01	2.69	2.16
Deputy or Patrolman Salary	\$600.	\$500.	\$635-720.	\$600.	\$550.	\$500.-550.	\$630.-644.	\$545.	\$530.-575.	\$610.-622.
Index Crimes - 1975										
Murder	1	2	2	0	1	0	1	0	0	0
Rape	0	1	4	0	3	0	0	0	0	0
Robbery	1	14	8	1	26	0	12	2	0	16
Agg. Assault	11	15	21	5	0	3	103	9	2	39
Burglary	27	14	218	5	414	14	201	7	14	100
Theft	54	15	160	0	0	11	281	0	31	0
Veh. Theft	6	4	27	0	0	2	240	0	6	0
Total	100	65	440	11	444	30	838	18	53	155
Rate Per 100,000 Pop.	1006.9	616.5	1382	3489	1524.3	1200	6263	802.5	2038.4	1240.8

*Estimated

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TABLE A-2

Additional Municipalities with Police Forces
in the Five-County Impact Area

<u>Jurisdiction</u>	<u>Population Served</u>	<u>Sworn Personnel</u>	<u>Total Personnel</u>
Hendersonville	20,444	25	33
Mt. Juliet	1,930	3	4
Portland	3,081	9	9
Red Boiling Springs	953	3	3
South Carthage	859	3	3
Watertown	1,061	4	4
Westmoreland	1,423	2	4
White House	800	2	7

TABLE A-3

Estimated Movers, School-Age Children and
Total Population Influx Associated with Construction
Employment at the Hartsville Nuclear Plant*

<u>Year After Construction Begins</u>	<u>Employment</u>		<u>Population Increase</u>	
	<u>Total</u>	<u>Movers</u>	<u>School-Age</u>	<u>Total</u>
1	2,100	500	350	1,200
2	3,800	1,700	1,100	3,900
3	4,900	2,400	1,600	5,600
4	5,000	2,700	1,700	6,100
5	4,300	2,300	1,500	5,200
6	2,300	950	600	2,200
7	900	200	100	400

Estimated Distribution of Movers by County
and Associated Peak Housing and Population Impacts

<u>County</u>	<u>Percent of Movers</u>	<u>Housing Distribution</u>		<u>Population Influx</u>	
		<u>Mobile</u>	<u>Conventional</u>	<u>School-Age</u>	<u>Total</u>
Macon	10	150	50	170	600
Smith	20	275	125	340	1,200
Sumner	20	50	350	340	1,200
Trousdale	30	475	125	510	1,900
Wilson	20	50	350	340	1,200
Total	100	1,000	1,000	1,700	6,100

*Prepared by Tennessee Valley Authority

TABLE A-4
10-Year Growth, 5-County Area

	<u>Normal Growth</u> ¹	<u>Impact Growth Increment</u> ²	<u>Resultant Population</u>
1976	153,900	-	153,900
1977	159,700	1,600	161,300
1978	165,700	5,100	170,800
1979	171,900	7,300	179,200
1980	173,300	7,900	186,200
1981	185,000	6,700	191,700
1982	191,900	2,800	194,700
1983	199,200	500	199,700
1984	206,600	-	206,600
1985	214,400	-	214,400

¹Without TVA project.

²Includes new resident workers, families, service personnel, and their families.

TABLE A-5

10-Year Growth By County -- Not Including TVA Impact

	<u>Total</u>	<u>Macon</u>	<u>Smith</u>	<u>Sumner</u>	<u>Trousdale</u>	<u>Wilson</u>
1976	153,900	14,000	14,400	73,800	5,400	46,300
1977	159,700	14,500	15,000	75,700	5,500	48,000
1978	165,700	15,100	15,500	79,500	5,300	49,300
1979	171,900	15,600	16,100	82,500	6,000	51,700
1980	173,300	16,200	16,700	85,500	6,200	53,600
1981	185,000	16,800	17,300	88,800	6,400	55,700
1982	191,900	17,400	18,000	92,100	6,700	57,700
1983	199,200	18,100	18,700	95,600	6,900	59,900
1984	205,600	18,800	19,400	99,100	7,200	62,100
1985	214,400	19,500	20,100	102,800	7,500	64,500

TABLE A-6

Total Law Enforcement Personnel Beyond
Present Levels Necessary to Sustain
Existing Ratios in the Five-County Area

<u>Year</u>	<u>Required With Normal Growth</u>	<u>Required With TVA Project</u>	<u>TVA Impact (Increase)</u>
1975	9	9	0
1977	18	20	2
1978	27	34	7
1979	37	48	11
1980	47	59	12
1981	57	68	11
1982	68	73	5
1983	79	80	1
1984	91	91	0
1985	103	103	0

END

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