# SUPPORTING STATEMENT FOR REQUESTS FOR APPROVAL UNDER THE PAPERWORK REDUCTION ACT AND 5 CFR 1320 Tennessee Valley Authority (TVA) - Valley Relations External Stakeholder Survey

### B. Statistical Methods

Survey analysis includes the use of summarization techniques such as counts, frequencies, and means. Statistical calculations include margin of error, statistical significance, variation, and standard deviation.

**The following is from the instructions for completing the supporting statement:** B. Collections of Information Employing Statistical Methods

The agency should be prepared to justify its decision not to use statistical methods in any case where such methods might reduce burden or improve accuracy of results. When Item 17 on the Form OMB 83-I is checked, "Yes," the following documentation should be included in the Supporting Statement to the extend that it applies to the methods proposed:

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection methods to be used. Data on the number of entities (e.g., establishments, State and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection had been conducted previously, include the actual response rate achieved during the last collection.

The potential respondent universe includes all 600 (approximately) external stakeholders served by the Valley Relations organization. No subset will be used. The entire group will receive the survey and have an opportunity to provide input. The following table shows the approximate number of survey recipients divided by congressional district office level, state level, and local level.

	Congressional District Office Level	State Level	Local Level (City or County)
Number of Survey Recipients (Approximate) Approximately 600 Total	75	250	275

#### Response rate is expected to be approximately 30 percent.

- 2. Describe the procedures for the collection of information including:
- \* Statistical methodology for stratification and sample selection,
- \* Estimation procedure,
- \* Degree of accuracy needed for the purpose described in the justification,
- \* Unusual problems requiring specialized sampling procedures, and
- \* Any use of periodic (less frequent than annual) data collection cycles to reduce burden.

# The completed surveys will be collected and provided to a TVA statistician who specializes in organizational performance. The statistician will analyze and summarize the results using simple descriptive statistics

(mean, count, standard deviation). Margins of error based on 95 and 99% confidence intervals will be calculated and reported. The statistician will prepare a report of results and findings. Valley Relations will use the report to determine current performance levels related to the two performance indicators regarding the service Valley Relations provides its external stakeholders. Valley Relations will also use the results to set goals for the next fiscal year.

Statistical methodology for stratification and sample selection--No sample selection of the "universe" covered by the collection will be utilized. Stratification of the data will be based on government office level (i.e., Congressional District Office Level; State level; Local Level) where applicable<sup>1</sup>.

Estimation procedure—margins of error will be calculated for the mean results which will be used in setting reasonable and meaningful goals for next year<sup>2</sup>. Since the targets for customer satisfaction are expressed in percent favorable, or percent satisfied, margin of error calculations will be based on the binomial distribution. Given the small universe of possible responses, a finite population correction factor will be used in the determination of the margin of error.

Degree of accuracy needed for the purpose described in the justification—The degree of accuracy will be directly proportional to the response rate and observed mean level of results since the binomial distribution will be used in the margin of error calculations. A margin of error of +/- 5% at a mean satisfaction rate of 80% is desirable.

Unusual problems requiring specialized sampling procedures--none anticipated

## Any use of periodic (less frequent than annual) data collection cycles to reduce burden--none

3. Describe methods to maximize response rates and to deal with issues of non-response. The accuracy and reliability of information collected must be shown to be adequate for intended uses. For collections based on sampling, a special justification must be provided for any collection that will not yield "reliable" data that can be generalized to the universe studied.

Various steps will be taken to improve the survey response rate including:

- Recipients receiving an advanced notice (postcard) notifying them of the upcoming survey.
- Area district managers will verbally notify survey recipients of the upcoming survey.
- Prior to the survey deadline, area district managers will remind survey recipients of the approaching deadline.

Accuracy and Reliability of Information Collected: The survey will ask external stakeholders specific, easyto-understand questions, which will reduce the possibility of confusion and could reduce the response rate. The survey is intended to provide specific feedback related to performance indicators on the Valley Relations report card. Questions on the survey are directly related to those performance indicators.

4. Describe any tests of procedures or methods to be undertaken. Testing is encouraged as an effective means of refining collections of information to minimize burden and improve utility. Tests must be approved if they call for answers to identical questions from 10 or more respondents. A proposed test or set of test may be submitted for approval separately or in combination with the main collection of information.

None

<sup>&</sup>lt;sup>1</sup> The stratification pool for the Congressional Offices is likely too small to be of use. However, in the case of State Level, and Local Level constituents, it is likely that stratification of their responses will result in useful goal setting information. For example assuming a 30% response rate, the margin of error based on a 95% confidence interval and using a finite population correction factor for State Office Levels at an average satisfaction rate of 80%, is +/-7.7%.

<sup>&</sup>lt;sup>2</sup> Meaningful improvement targets should generally be greater than or equal to the margin of error.

5. Provide the name and telephone number of individuals consulted on statistical aspects of the design and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.

Name of individual who will collect and analyze the information for Valley Relations:

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