

CEWRC-IWR

March 26, 2007

MEMORANDUM FOR Robert Cushing, Office of the Secretary of Defense, and James Laity, the Office of Management and Budget

SUBJECT: Request for Office of Management and Budget Approval a Survey of Ohio River Shippers

1. The Institute for Water Resources, in cooperation with the Huntington District Corps of Engineers, is planning to conduct a survey of existing and potential waterway users in the Ohio River Basin. We are requesting OMB approval to conduct these surveys.

2. The paragraphs below provide information to facilitate your review:

a. Survey purpose and location. The major purpose of the survey is to develop data to assist in the examination of shipper response curves applicable to waterway planning in the Ohio River Basin. This survey is a modification of the "River Transportation Choice and Needs Survey." The survey is anticipated to begin in May of 2007. The results would be used to generate shipper response functions and evaluate related decisions of shippers. These functions are inputs into a simulation model to assess the benefits of waterway improvements, necessary for planning.

b. Population to be surveyed. The population consists of existing and potential waterway users in the Ohio River Basin. The size of the population is not known, but from existing data files approximately 5500 business and public establishments have been identified. A total sample size of approximately 3000 establishments will be selected based on budgetary constraints, but will be adequate for statistical analysis.

- c. Establishment sampling plan. The sampling technique to be used for the residential properties is a stratified random sample. In particular, 3000 shippers will be selected from the available data. This selection will be conducted on the basis of commodities shipped and location vis a vis the waterway. To this end, there are two dimensions of stratification: Geographic and Commodity. Because of the dominance and characteristics of coal shipments and because the number of identified iron and steel shippers, the sampling probabilities and/or techniques will differ from the rest. For the other commodity groups, the following sampling will take place.
- a. Geographically, 50% of the sample will be of establishments located in a waterside community, 25% of establishments located in a waterside county (but not in a waterside community), and 25% of establishments located one county removed from the waterway.
 - b. Establishments are also stratified on a commodity basis. The strata include coal, iron and steel, grain, aggregates, chemicals, ores and mines, petroleum and other. These represent the major commodity categories on the waterway. With the exception of coal and iron and steel, there is an equal likelihood of commodity categories to be sampled (1/7 or 14.3 percent)
 - c. Coal dominates the waterway. Most coal shipments are by electricity plants. There are 864 such plants identified in the Ohio River Basin, and these are operated by 40 companies. Each of these operating companies will be contacted and solicited to fill out a survey form. There are also sizable shipments by industrial users of coal. There are 167 such plants operated by 132 operating companies identified. All of the operating companies will be contacted and solicited to fill out a survey form.

d. Data collection and follow-up. The sample will be administered by the Washington State University Social and Economic Sciences Research Center. This organization will conduct the interviews of non-coal shippers by telephone. They will also establish an on-line version of the instrument for use by coal shippers and for shippers that opt out of the telephone. The sample will be drawn as described in c. above. LRD will examine the list of firms drawn for the sample, establishments that are identified as not germane to the population will be replaced with establishments that are, again using statistically valid procedures. There will be up to 3000 pre-contact phone calls. Establishments will be queried as to population relevance, and if relevant asked to complete telephone interview. Participants will be informed that their participation is voluntary and that their responses will be confidential. Participants will also be informed of the approximate interview time and the OMB approval number. The statistics necessary to analyze establishment demands are involved. In this survey, the instrument will be pre-populated to every extent necessary to reduce public burden hours.

e. Data analysis plan. The purpose of the survey is to develop data to assist in determining the relationship between the waterway traffic with the rates charged to shippers, the transit times involved in shipments, and the reliability of different modes. These relationships will be assessed through appropriate statistical procedures developed in the Navigation and Economics Technologies Program of Research (NETS). A report will be prepared that will include discussions of the assumptions, analytical procedures and interpretation of the results. Documentation will include refusal rate, interview completion rate, and appropriate analyses and discussions indicating how well the sampling represents the population surveyed.

f. Consistency with OMB-approved questionnaires. The survey instrument is nearly identical to the OMB-approved questionnaires.

3. Public Burden Hours. The total public burden hours for these surveys will be 550 hours. Telephone: The pre-contact telephone calls are expected to last 5 minutes, and the interviews 20 minutes per interview (estimate 70 percent of 3000 are relevant, and expect a 30 percent response). The total public burden of telephone is: $(3000*5+.7*3000*.3*20)/60=460$ hours. In addition, the coal shippers (and other large shippers) totaling about 50 will be contacted. Each contact is anticipated to last no more than 30 minutes. With personal contact, 200 additional survey forms should be attainable at 20 minutes per form. The burden is calculated as: $(50*30)/60 + 200*20/60 = 91$ hours.

4. If you have any questions or comments regarding this effort, please contact me at (703) 428-7086.

Encl

Stuart A. Davis