

SUPPORTING STATEMENT
Request to Conduct Focus Groups
Underground Storage Tank Study

September 2, 2009

(1) Title of the Information Collection

Understanding the Social Benefits of Cleanup Activities by EPA's Underground Storage Tank Program Using Stated Preference Methods

(2) Short Characterization/Abstract

Increasingly, policy makers seek information on social welfare benefits as policies, budgets and legislation is developed and evaluated. At present, there are no high quality benefit estimates of the cleanup activities carried out by the U.S. Environmental Protection Agency's (EPA) Underground Storage Tank (UST) program. There are over 600,000 USTs nationwide. To date, nearly 500,000 releases have been documented and approximately 80 percent of these sites have been cleaned up. In the three Maryland counties where this proposed research will be conducted there have been nearly 400 documented releases in the last 10 years.

Presently, there is little information regarding individual preferences towards the cleanup and reuse of leaking underground storage tank (LUST) sites. The purpose of this Information Collection Request (ICR) is to conduct focus groups to explore individuals' views regarding UST site contamination and cleanup and how those preferences influence values. This information will be used in determining if and how to develop a stated preference survey that could measure national benefits from cleanup of LUST sites. In addition, the focus group information will be useful to compare to the results from a companion hedonic property value study being conducted under this same project.

(3) Need for the Collection

In 2002, a Science Advisory Board (SAB) Panel reviewed an EPA proposal to assess the benefits and costs of the UST program (EPA, 2002). An important recommendation made by the Panel was for EPA to go forward with case studies using two or more benefit estimation methodologies in order to learn about implementation problems and their relative performance. The panel stated "... we believe that it is premature to select only one methodology for analysis of the whole program (p. 2)." To date, there has been no follow-up to these recommendations.

In 2006, a workshop titled *Methods for Estimating the Social Benefits of EPA Land Cleanup and Reuse Programs* carefully considered alternative benefit estimation methods to assess which might be promising to estimate cleanup benefits generally, as well as to estimate the benefits associated with each specific EPA cleanup and reuse program. There was a recommendation to focus on a cleanup program that addresses relatively

uniform contamination events, such as the UST Program, in order to simplify the research task. Feedback from the workshop participants also included a suggestion that research be conducted to study the relationship between stated preference and revealed preference measures of the effects of cleanup.

Revealed preference methods utilize the concept of weak complementarity to estimate willingness to pay for non-market goods by examining actual market transactions for a related market good. For the case of UST, perhaps the best example of a revealed preference method is the hedonic property model. Hedonic property models attempt to estimate the marginal willingness to pay for a non-market housing amenity from property prices.

In contrast, stated preference methods utilize some type of a survey to elicit willingness to pay estimates directly. An important contribution of stated preference studies to the cleanup/reuse valuation question is the reporting of values on the willingness to pay for public goods which would not be reflected in market data. A second advantage is that stated preference surveys can ask respondents to consider hypothetical differences in circumstances. Thus they are applicable to the estimation of a wide range of values, including nonuse/existence values. A particular advantage of the stated preference approach that is applicable to the UST Program is that survey respondents can illuminate the reasons behind effects of contamination and cleanup on property values. For example, a survey can be used to determine if impacts on property values are related to ecosystem risks, human health risks, or something else.

Despite potential advantages offered by stated-preference approaches, few studies have relied on this method for these purposes (see Alberini et al. (2006) for one study using a conjoint choice survey based approach for valuing benefits from contaminated site remediation policies, not UST sites specifically). In addition, few studies directly address UST sites and those that do fall short of estimating social welfare changes.

The results of the focus groups conducted under this ICR will provide meaningful information on household preferences towards UST sites. This will enable EPA to determine if, and how, to move forward with a full stated preference survey that could measure the social benefits of cleanup and remediation of UST sites.

(4) Non-duplication

To the best of our knowledge this survey is unique and does not duplicate other efforts. The careful comparison of the focus group feedback regarding the reasons behind expected effects of USTs and LUSTs to the hedonic property value analysis will be unique. As mentioned in (3) above, some studies have utilized stated-preference methods to value contaminated site remediation. For example, Alberini et al. (2006) valued health benefits from site remediation efforts in Italy. Of specific relevance, Chattopadhyay et al. (2005) compared results of a hedonic analysis and a conjoint-based stated-preference survey in valuing benefits of Superfund site remediation in Michigan. Relative to other contaminated sites (e.g., Superfund sites) LUST sites are fairly uniform and may have

fairly localized effects. Simons and Winson-Geideman (2005) focused on LUST sites specifically, but did not conduct a parallel hedonic analysis. The methodological approach to this study and nature of LUST sites present a unique opportunity to disentangle the link between contamination and property value effects. In addition, unlike other studies this study will draw respondents from three different locations (i.e., Frederick County, Maryland; Baltimore County, Maryland; and Baltimore City County, Maryland) and will examine more than just health effects. For these reasons, this study will provide unique information.

(5) Consultations

The Principal Investigator for the stated-preference portion of this effort is Dr. Anna Alberini. Dr. Alberini is assisted by Robert Paterson, a Principal with Industrial Economics, Incorporated. Dr. Kelly Maguire at the U.S. Environmental Protection Agency serves as the project officer and a contributor to this research.

Dr. Anna Alberini is an Associate Professor in the Department of Agricultural and Resource Economics at the University of Maryland. She has examined or is currently examining many aspects, implications and entities affected by hazardous waste site policies. She has studied the effects of site listing on property values; evaluated voluntary cleanup programs; interviewed real estate developers in the US and Europe about their preferences for policies (based on regulatory relief, liability relief, and financial incentives) aimed at encouraging cleanup and reuse of contaminated properties; and interviewed members of the public (in Italy) about their preferences for contaminated site cleanup policies.

The Principal Investigator for the revealed preference portion of this effort is Dr. Jeffrey Zabel, a professor of Economics at Tufts University. Dr. Zabel will provide input regarding the design and conduct of the focus groups as needed to ensure consistency with the hedonic work.

(6) Peer Review Plans

Survey materials will be subject to routine internal review by Dr. Kelly Maguire, Dr. Robin Jenkins, Dr. Chris Moore, Dr. Alex Marten, and other EPA staff. External peer review is beyond the scope of this initial effort, but would be conducted prior to any field pre-testing of the survey instrument.

(7) Confidentiality

The survey instrument will fully conform to federal regulations – specifically the Privacy Act of 1974 (5 U.S.C. 552a), the Hawkins-Stafford Amendments of 1988 (P.L 100-297), and the Computer Security Act of 1987. Each prospective respondent will be informed that their participation in the survey is voluntary, and that their identities will be kept confidential by the investigators and not associated with their responses. EPA or any other federal or state agency will not have access to the names of respondents.

(8) Sensitive Questions

There are no questions on sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private or sensitive in these focus group materials. Answers to standard demographic questions (i.e., age, income) will be included.

(9) Respondents

We intend to conduct six focus groups as part of survey instrument development. Each focus group will consist of 9 respondents. Individuals will be recruited from Frederick, Baltimore and Baltimore City Counties (the study area for the hedonic study). This area reflects a cross-section of ultimate potential respondents to a survey. The groups will be led by a professional moderator, and held in facilities with audio/video recording capabilities. Recruiting criteria will be established with respect to age, education, income and gender of participants. No participants will have participated in a focus group in the last two years (to avoid habitual participants). Participants will have recent experience with home sale/purchase. Finally, groups will be stratified according to whether they receive water from a municipal source or private well, as we anticipate that these two groups may have different preferences with respect to LUST site issues.

(10) Collection Schedule

The proposed timeline for the data collection is as follows.

Task:	Date:
Conduct focus groups	Fall 2009
Analyze focus group results, develop recommendations on draft survey instrument	November 2009
Present results to EPA	December 2009

Please note that the goal of the focus groups is to develop recommendations regarding a future survey instrument. Prior to pre-testing and administration of a survey we would submit a separate ICR for approval.

(11) Respondent Burden

The schedule for conducting the four focus groups being requested is as follows:

Set 1 (Date TBD)

Group 1: 5:30-7:30pm

Group 2: 8:00-10:00pm

Set 2 (Date TBD)

Group 1: 5:30-7:30pm

Group 2: 8:00-10:00pm

Set 3 (Date TBD)

Group 1: 5:30-7:30pm

Group 2: 8:00-10:00pm

The first set of groups will be conducted in an open-ended format to gauge respondent awareness of USTs, associated risks, and potential impacts on nearby property values. A script containing relevant questions that will be used to guide the discussion is attached to this request. A subset of these questions will be presented to respondents as a written exercise to facilitate discussion.

Based on responses to these questions, the second and third set of groups will be devoted to development and evaluation of a questionnaire featuring conjoint-choice questions. Survey materials will be revised between groups based on respondent reactions and comments to ensure that the ultimate draft instrument is clear, concise, and comprehensive.

Burden Estimates

Recruiting Participants

We anticipate calling 5 people for each confirmed participant. Each "rejected" call takes 1 minute and each confirmed call takes 5 minutes. Therefore, recruiting burden can be calculated as follows:

54 confirmed participants*5 minutes per call = 270 minutes or 4.5 hours

216 rejected participants*1 minute per call = 216 minutes or 3.6 hours

Therefore, total recruiting burden is 486 minutes or 8.1 hours

Focus Group Participation

For the purposes of calculating burden, the maximum total number of respondents for the focus groups is **54**. Each individual will participate in a two-hour session. The total participant burden is 108 hours.

The total amount of respondent burden requested is **116.1 hours**.

REFERENCES

Alberini, A., S. Tonin, M. Turvani, and A. Chiabai. 2006. Paying for Permanence: Public Preferences for Contaminated Site Cleanup. [FEEM Working Paper No. 113.06](#). Fondazione Eni Enrico Mattei.

Chattopadhyay, Sudip, John B. Braden, and Arianto Patunru. 2005. Benefits of Hazardous Waste Cleanup: New Evidence from Survey- and Market-based Property Value Approaches. *Contemporary Economic Policy*, 23(3), 357-375.

Simons, Robert A. and Kimberly Winson-Geideman. 2005. Determining Market Perceptions on Contamination of Residential Property Buyers Using Contingent Valuation Surveys. *Journal of Real Estate Research*, 27(2), 193-220.

U.S. Environmental Protection Agency, 2002. Underground Storage Tanks (UST) Cleanup & Resource Conservation & Recovery Act (RCRA) Subtitle C Program Benefits, Costs, & Impacts (BCI) Assessments: An SAB Advisory. EPA-SAB-EC-ADV-03-00.