

**Survey of Engineered Nanomaterial Occupational Safety and Health
Practices**

Supporting Statement Part B

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B. Supporting Statement B

This information collection does not involve statistical methods.

B.1 Respondent Universe and Sampling Methods

A list of potential companies who interact with engineered nanomaterials will be identified for the survey. Because there is no nationally representative database of companies working with engineered nanomaterials, the sample will be compiled from lists of industry associations, research reports, marketing databases, and web-based searches. The companies identified on the preliminary list are categorized into one or more of the following: manufacturer, distributor, fabricator or formulator, user or service industry, and instrument manufacturer.

Manufacturers refer to those companies that create or manufacture engineered nanomaterials. Distributors are those companies that resell or distribute nanomaterials to a broad range of customers. Formulators are those that add engineered nanomaterials to a matrix to utilize desirable properties of the nanomaterials in the formulation.

Fabricators are those that integrate engineered nanomaterials into the product either as a discrete nano-scaled element (*e.g.*, thin films) or integrated component (*e.g.*, functionalized nanoparticles). Users or service industries include companies that use or encounter engineered nanomaterial-containing products during their operations. Instrument makers are companies that manufacture instruments for the purpose of monitoring, characterizing or manipulating nanomaterials.

Previous efforts to identify the sample pool have yielded approximately 1100 companies who match the criteria for inclusion. However, since this is a rapidly changing field, this list of potential companies will be updated prior to data collection. Companies were further categorized into three size ranges: small (1-250 employees), medium (251 to 1000 employees), and large (greater than 1000 employees).

Given the diverse range of companies, engineered nanomaterials being used, manufacturing process, and occupational safety and health practices, the contractor will choose 600 companies to survey to maximize the informational yield across these various dimensions

mentioned above. The selection of companies will be proportional to the company category and size.

B.2 Procedures for the Collection of Information

The mode of data collection will mostly be web-based survey, but the contractor will also conduct one mailing of a paper survey to non-responders. The web-based survey will be tested to ensure that the logical flow is correct and that the data are being recorded correctly. See the survey in Attachment 7.

The contractor will use commercial databases, web searches and pre-calls to companies to identify an occupational health and safety specialist, industrial production or natural sciences manager, or other representative who would be able to respond to the survey. Pre-calls to companies to identify a survey recipient will be made by the contractor staff utilizing a Computer Assisted Telephone Interviewing (CATI) system. See attachment 3 for the pre-call telephone script. During pre-calls, if possible, the contractor will check if a company handles engineered nanomaterials and, if not, code the companies that are ineligible.

Once a company contact is identified, the contractor will send that contact an initial invitation by email; or if no email address is available, a letter with the link and password for completing the web-based survey will be mailed. See attachment 4 for the initial letter/email to respondents. A reminder letter/email will be sent to non-responders approximately one week after the initial invitation. Additional email prompts will be done throughout the data collection period. See attachment 5 for the follow-up letter/email to respondents. Approximately three weeks after the reminder letter/email is sent, if the company contact has not completed the web-based survey or has not already been removed from the sample (e.g. refusal, out of business), a paper survey will be mailed to the contact. Telephone prompting calls will be made to selected companies who have not completed the survey, with a special focus on the strata that have a relatively large proportion of non-respondents. See attachment 6 for the prompting call telephone script. Replacement paper surveys will be mailed as needed or requested.

B.3 Methods to Maximize Response Rates and Deal with No Response

The contractor will employ various methods to improve

response rate. The contractor will identify the sample shortly before the data collection begins to ensure that the sample information is current. In addition, company websites will be searched to confirm or update contact information whenever possible. For companies who receive pre-calls, the contractor will inquire whether they handle engineered nanomaterials or not and remove them from sample as appropriate.

The web-based survey includes items that only are critical to the analysis and requests information that should be readily available to the respondent. The survey is estimated to take no more than 20 minutes to complete, including the time it may take respondents to look-up and retrieve needed information. Experience has shown that limiting respondent burden reduces non-response.

The survey methodology includes follow-up with non-respondents to maximize response rates. For instance, the contractor will send prompting letters and/or emails and conduct telephone follow-ups to selected companies who have not responded to requests. The methods proposed for data collection should yield acceptable response rates, it is

estimated that 500 of the 600 employers contacted will complete the survey.

B.4 Tests of Procedures or Methods to be Undertaken

The survey instrument was tested with six respondents and questions were revised based on findings from cognitive interviews with the respondents. Instead of a paper survey, the contractor will be employing the same procedures, but using a web-based survey, during the proposed data collection.

B.5 Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

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