DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[60Day-25-0010; Docket No. CDC-2025-0009]

Proposed Data Collection Submitted for Public Comment and Recommendations

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice with comment period.

SUMMARY: The Centers for Disease Control and Prevention (CDC), as part of its continuing effort to reduce public burden and maximize the utility of government information, invites the general public and other federal agencies the opportunity to comment on a proposed information collection, as required by the Paperwork Reduction Act of 1995. This notice invites comment on a proposed information collection project titled Exposures, Health Effects, and Controls of Chemicals from Thermal Spray Coating: Part 2. The purpose of the proposed data collection is to assess exposures and respiratory health in workers using three thermal commonly used spray coating technologies and to investigate the association between exposures and respiratory health.

DATES: CDC must receive written comments on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION DATE IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments, identified by Docket No. CDC-2025-0009 by either of the following methods:

- Federal eRulemaking Portal: www.regulations.gov. Follow the instructions for submitting comments.
- Mail: Jeffrey M. Zirger, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road, NE, MS H21-8, Atlanta, Georgia 30329.

Instructions: All submissions received must include the agency name and Docket Number. CDC will post, without change, all relevant comments to www.regulations.gov.

Please note: Submit all comments through the Federal eRulemaking portal (www.regulations.gov) or by U.S. mail to the address listed above.

FOR FURTHER INFORMATION CONTACT: To request more information on the proposed project or to obtain a copy of the information collection plan and instruments, contact Jeffrey M. Zirger, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road, NE, MS H21-8, Atlanta, Georgia 30329; Telephone: 404-639-7570; E-mail: omb@cdc.gov.

SUPPLEMENTARY INFORMATION:

Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501-3520), federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. In addition, the PRA also requires federal agencies to provide a 60-day notice in the *Federal Register* concerning each proposed collection of information, including each new proposed collection, each proposed extension of existing collection of information, and each reinstatement of previously approved information collection before submitting the collection to the OMB for approval. To comply with this requirement, we are publishing this notice of a proposed data collection as described below.

The OMB is particularly interested in comments that will help:

1. Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
2. Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
3. Enhance the quality, utility, and clarity of the information to be collected;
4. Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other

technological collection techniques or other forms of information technology, e.g., permitting electronic submissions of responses; and

5. Assess information collection costs.

Proposed Project

Exposures, health effects, and controls of chemicals from thermal spray coating: Part 2 - New - National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention (CDC).

Background and Brief Description

Thermal spray coating (TSC) is a surface treatment process that enables different types of feedstock material to be deposited on various substrates—metals, metal alloys, ceramics, and plastics. TSC processes are relatively simple to use, economical, and have been applied to almost all industrial sectors such as automotive, aerospace, machine shops, electronics, medical, shipyards, and printing. Important uses include coatings for wear prevention, repair, restoration, thermal insulation/conduction, corrosion/oxidation resistance, seals, and decoration.

The most commonly used metals in TSC include chromium, nickel, cobalt, zinc, and aluminum. Occupational exposures to metals and particles formed during TSC operations are potentially associated with chronic obstructive pulmonary diseases (COPD), allergic asthma, pneumoconiosis, cancer, skin sensitization, metal fume fever, and deaths from lung damage. In addition, toxic gases such as phosgene, nitric oxide, nitrogen dioxide, carbon monoxide, and ozone produced from TSC processes can cause irritation, pulmonary edema, headache, and drowsiness. Exposure assessment for TSC is lacking and can present a significant challenge but is critical for informing intervention and prevention strategies and for epidemiologic studies. In addition, respiratory impairments in TSC and allied occupations remain unknown because of the absence of health studies. There is thus a need for an integrated exposure and respiratory health assessment study to explore exposure-response relationships.

The purpose of the proposed data collection is to assess exposures and respiratory health in workers using three TSC technologies and investigate the association between exposures and respiratory health. Among various TSC processes, we will focus on two commonly used (electric arc- and flame-spraying) and one emerging (cold-spraying) techniques. Comprehensive exposure assessment will be performed at multiple worksites by measuring workers' exposure to particles and metals in their breathing zone using a real-time instrument and area air concentrations to particles, metals, and gases using real-time and time-integrated instruments. Additionally, room air flows will be measured where appropriate, and detailed contextual information on workplace characteristics will be systematically collected on a standardized form based on workplace observations. For the health assessment, respiratory health will be assessed concurrently with exposures using a combination of tests including: a standardized investigator administered questionnaire; fractional exhaled nitric oxide test, a non-invasive biomarker of inflammation; two non-invasive lung function tests, spirometry and impulse oscillometry (both repeated after bronchodilator administration among those with respiratory impairments); and blood samples to measure biomarkers of inflammation to assess lung damage.

The target number of total participants is 300, representing the three selected TSC processes who complete the health or the exposure assessment. Ideally, CDC wants a sample size of 200 workers that complete both the health and exposure assessments. In reality, workers might participate in the health assessment but not the exposure assessment and vice-versa. If that is the case, CDC needs 200 workers to complete the health assessments, regardless of whether they also complete the exposure assessment, and at least 100 workers to complete the exposure assessments regardless of whether they also complete the health assessment. Therefore, the maximum sample size for this study will be 300 (in the unlikely event that the 200 that complete the health assessment are different from the 100 that complete the exposure assessment).

The burden hour estimates for the exposure and health assessments are presented below. For the exposure assessment, the expected duration of worker contact would be approximately

15 minutes (10 minutes for obtaining the informed consent document and 5 minutes for donning and doffing vest with sampling equipment). The estimated times to participate for the health assessment are approximately 40 minutes (10 minutes for the informed consent document and 30 minutes for the questionnaire). CDC requests OMB approval for an estimated 158 hours (25 hours for the exposure assessment and 133 hours for the health assessment). CDC is requesting OMB approval for two years. There is no cost to respondents other than their time.

Estimated Annualized Burden Hours

Type of Respondents	Form Name	Number of Respondents	Number of Responses per Respondent	Average Burden per Response (in hours)	Total Burden (in hours)
Exposure Assessment	Informed Consent	100	1	10/60	17
	Donning/ Doffing vest	100	1	5/60	8
Health Assessment	Informed Consent	200	1	10/60	33
	Worker Questionnaire	200	1	30/60	100
Total					158

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Lead,

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Centers for Disease Control and Prevention.

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