Neva F. B. Jacobs, MSPH, CIH

Current Position
Senior Supervising Health Scientist

Discipline Areas
> Human Health Risk Assessment
> Exposure Assessment
> Environmental Health

Years' Experience
10 Years

Joined Cardno
2014

Education
> Johns Hopkins University; Bloomberg School of Public Health, Environmental Health DrPH program, estimated graduation 2025
> MSPH, Industrial Hygiene, Johns Hopkins University; Bloomberg School of Public Health, 2013
> BA, Environmental Science, Colorado College, 2008

Summary of Experience

Ms. Neva Jacobs is a Senior Supervising Health Scientist with Cardno ChemRisk. She is a board-certified industrial hygienist with 10 years of professional experience in exposure assessment and health risk assessment. Her primary training and areas of expertise include quantitative exposure assessment, industrial hygiene, human health risk assessment, and corporate history documentation. She has been involved in characterizing risks associated with exposures to a variety of potential environmental and occupation hazards, including asbestos, metals, pesticides, organic flavorings, microbes, noise, and radiation. She also has training and experience in evaluating and controlling risks to workers and consumers from food production and retail facilities. She holds certifications in ServSafe training and in HACCP plan development.

Ms. Jacobs earned her MSPH in Industrial Hygiene from the Johns Hopkins Bloomberg School of Public Health and also holds a certificate in Risk Assessment from the Johns Hopkins Risk Sciences and Public Policy Institute. Before graduate school, she oversaw air monitoring projects, investigating pesticide drift in agricultural communities. Ms. Jacobs received a BA in Environmental Science from Colorado College, during which she performed independent research on the phytoremediation potential of urban garden edible plants and resulting heavy metal ingestion from this food source.

Significant Projects

Industrial Hygiene

Worked with a team to prepare and maintain occupational health and safety guidance documents specific to nearly 30 types of small businesses reopening during the COVID-19 pandemic.

Researched and developed guidance on appropriate respiratory protection in response to the global outbreak of COVID-19.

Conducted indoor air quality assessments in a warehouse facility where workers described odor intrusion and eye and respiratory irritation. Performed real-time indoor air quality monitoring and VOC and aldehyde sampling.

Performed real-time indoor air quality monitoring at a distribution center in response to a fire.

Assisted with developing a standard operating procedure for monitoring benzene at a liquefied natural gas facility in accordance with OSHA regulations.

Performed indoor air monitoring for formaldehyde in homes where laminate flooring had previously been installed.

Designed and conducted a study evaluating the accuracy of a sound level meter smartphone app relative to a traditional noise dosimeter.

Evaluated the use of metal working fluids at an industrial facility and the potential for respiratory irritation and disease among workers.

Reviewed and analyzed OSHA citation reports for a food manufacturing facility to assist with program evaluation and health and safety improvements.

Reviewed and assessed government agency and peer-reviewed literature regarding diacetyl exposure in food production and flavoring manufacturing facilities.

Assisted with providing recommendations for health and safety program improvements specific to the use of perchlorate at an industrial facility.

Conducted a walk-through inspection of a paper mill in New York where asbestos-containing products were historically used.

Investigated dermal and respiratory irritation complaints from workers in an office setting in New Jersey. Conducted real-time indoor air quality monitoring and VOC and surface dust sampling. Created a spatial and temporal representation of worker symptoms.

Complaints were found to have originated from multiple sources, including insect infestation, inadequate ventilation, and poor housekeeping.

Exposure and Human Health Risk Assessments

Investigated the pH of a variety of carbonated water beverages to determine the potential for dental erosion.

Used IH-MOD to simulate potential hydrogen fluoride exposure during a thermal runaway event in a cell phone on a commercial airplane.

Performed a comprehensive toxicological review of chemical formulations of electronic cigarette liquids for FDA submission of Premarket Tobacco Applications (PMTAs).

Characterized potential risk associated with the injection of acetate, potassium, and silicone oil byproducts following the use of a diagnostic medical device.

Examined the health risk associated with the presence of 1,3-pentadiene in a flavored beverage marketed towards children.

Litigation Support

Regularly developed comprehensive occupational histories for the purposes of litigation support, including qualitative and/or quantitative estimates of exposure.

Reviewed comprehensive corporate records for automotive friction, gasket, joint compound, paint, industrial talc, rubber, and bulkhead/wallboard manufacturers and developed a narrative of corporate conduct over time.

Managed litigation support for cases involving potential asbestos exposures from automotive and heavy equipment friction materials, gaskets, packings, auto body filler, aircraft components, asbestos paper, vermiculite products, electrical components, fire-rated drywall, and drywall accessory products. Reviewed and critiqued relevant literature and case-specific materials for use in preparation of expert testimony and reports.

Provided litigation support for cases involving industrial accidents at various manufacturing facilities. Performed research into the interpretation and applicability of OSHA regulations under given scenarios.

Provided litigation support for cases involving diacetyl exposure in food flavoring manufacturing facilities.

Evaluated available data regarding the presence of mold in a residential setting in relation to potential health effects.

Laboratory Research Experience

Designed and executed an independent research project to assess the uptake of heavy metals by edible plants in urban gardens along the Colorado Front Range as an undergraduate student.

Investigated neuron development in the hypothalamus using a zebrafish model while working as a research assistant at Georgetown University's Lombardi Cancer Center in Washington, D.C. over two summers.

Certifications

> ServSafe Food Manager, ServSafe, 2021
> Certified Industrial Hygienist (CIH), Comprehensive Practice (CP# 11355), American Board of Industrial Hygiene (ABIH), 2017
> Certificate in Risk Sciences and Public Policy, Johns Hopkins Bloomberg School of Public Health, 2013

Professional Honors/Awards

> AIHA President's Award, 2021
> AIHA Social Responsibility Award, 2021
> Selected for the American Industrial Hygiene Association's Future Leaders Institute Program, 2018
> National Institute of Occupational Safety and Health Education and Research Center (ERC) training grant, 2012-2013

Membership and Service to Professional Societies

> American Industrial Hygiene Association (AIHA)
  – COVID-19 Re-Open America Guidelines Task Force (2020-Present)
  – Technical Reviewer for Education Session and/or Professional Development Course proposals for AIHce conference (2019)
  – AIHA Risk Committee (2018-Present)
> NIOSH National Occupational Research Agenda (NORA) Agriculture, Forestry, and Fishing Sector Council Member (2016-Present)

Publications

- Ierardi, A.M., C. Mathis, A. Urban, N. Jacobs, B. Finley, and S. Gaffney. 2021. Potential airborne asbestos exposures in dentistry: A comprehensive review and risk assessment. Crit Rev Tox. 51(4):301-327.
- Jacobs, N., K. Chan, V. Leso, A. D'Anna, D. Hollins, and I. Iavicoli. 2020. A critical review of methods for decontaminating filtering facepiece respirators. Tox Ind Health. 36(9):654-680.
- Pierce, J.S., B. Roberts, D.G. Kougias, C.E. Comerford, A.S. Riordan, K.A. Keeton, H.A. Reamer, N.F.B. Jacobs, and J.T. Lotter. 2020. Pilot study evaluating inhalation and dermal glyphosate exposure resulting from simulated heavy residential consumer application of Roundup®. Inhal Tox. Advance online publication, Sept. 6, 2020. doi: 10.1080/08958378.2020.1814457.
- Jacobs, N., B. Roberts, H. Reamer, C. Mathis, S. Gaffney, and R. Neitzel. 2020. Noise exposures in different community settings measured by traditional dosimeter and smartphone app. Applied Acoustics. 167:1-8.
- Jacobs, N., K. Towle, B. Finley, and S. Gaffney. 2019. An updated evaluation of potential health hazards associated with exposures to asbestos-containing drywall accessory products. Critical Reviews in Toxicology. Advance online publication, July 1, 2019. https://doi.org/10.1080/10408444.2019.1639612
- Drechsel, D., C. Barlow, J. Bare, N. Jacobs, and J. Henshaw. 2017. Historical evolution of regulatory standards for occupational and consumer exposures to industrial talc. Regulatory Toxicology and Pharmacology. Advance online publication, Nov. 11, 2017. Doi: 10.1016/j.yrtph.2017.12.005
- Towle, K., N. Jacobs, J. Keenan, and A. Monnot. 2017. The cancer risk associated with residential exposure to soil containing radioactive coal combustion residuals. Risk Analysis. Advance online publication, Nov. 3, 2017. Doi: 10.1111/risa.12924
- Kopelovich, L., A. Perez, N. Jacobs, E. Mendelsohn, and J. Keenan. 2015. Screening-level human health risk assessment of toluene and dibutyl phthalate in nail lacquers. Food Chem Tox. 81:46-53.

Published Articles

- Jacobs N. and R. Zisook. 2020. Managing Perceptions of Risk in the Technology Industry. The Synergist. March 2020.
- Zisook R. and N. Jacobs. 2019. A Holistic Approach to Risk, Part 3. The Synergist. December 2019.

Presentations and Published Abstracts

- Louie, F., Jacobs, N., Liang, L., Park, C., and S. Bandara. 2021. Determining Dietary Exposure to Glyphosate Resulting from Recommended U.S. Diets. Presented at the U.S. Society of Toxicology Annual Meeting. Virtual.
- Ierardi, M., Lotter, J., Jacobs, N., Finley, B., and J. Pierce. 2021. Derivation of a Proposed Asbestiform Tremolite NOAEL for Lung Cancer. Presented at the U.S. Society of Toxicology Annual Meeting. Virtual.
- Hollins, D., Jacobs, N., and Neilson, R. 2020. Facility Operations During COVID-19: Guidelines for Protecting Worker Health and Safety and a Case Study. Webinar for the Adhesive and Sealant Council Training Academy, October 29, 2020.
- Jacobs, N.F. 2019. Holistic Noise Exposure Issues-Studies in Military and Non-Industrial Environments. Podium Presentation at the American Industrial Hygiene Conference and Expo (AIHce EXP), May 20-22, 2019, Minneapolis, MN.

- Ierardi, A.M., A. Urban, N.F.B. Jacobs, C. McMenamy, B.L. Finley and S.H. Gaffney. 2019. Characterization of Airborne Asbestos Exposures from the use of Dental Products: A Comprehensive Review. Poster Presentation at the American Industrial Hygiene Conference and Expo (AIHce EXP), May 20-22, 2019, Minneapolis, MN.
- Louie, F., Jacobs, N.F., Liang, L.G., Monnot, A.D., Novick, R.M. 2019. Exposure Assessment of Glyphosate in Breakfast Cereals. Presented at the U.S. Society of Toxicology Annual Meeting. Baltimore, MD.
- Jacobs, N., B. Roberts, H. Reamer, C. McMenamy, and S. Gaffney. 2018. Noise Exposures by Traditional Dosimetry and Smartphone App. 11th Conference of the International Occupational Hygiene Association. 2018. Washington, DC.
- Towle, K., Riordan, A., Keeton, K., and N. Jacobs. Quality of life among women following pelvic mesh procedures: a systematic literature review and meta-analysis. Presented at the Society for Epidemiologic Research in Baltimore, MD. June 20, 2018.
- Jacobs, N., Towle, K., Keenan, J., and A. Monnot. Human Health Risk Assessment of Residential Exposure to Radiation from Coal Ash. Presented at the American Industrial Hygiene Conference and Exposition (AIHce) in Philadelphia, PA. May 22, 2018.
- Towle, K., Sehgal, S., Jacobs, N., Drechsel, D., Fung, E. and A. Monnot. A quantitative risk assessment of daily exposure to the cosmetic preservative Kathon CG via use of personal care products. Presented at the American Industrial Hygiene Conference and Exposition (AIHce) in Philadelphia, PA. May 22, 2018.
- Jacobs, N., J. Bare, C. McMenamy, S. Gaffney, and J. Keenan. Potential Exposure to Hydrogen Fluoride from a Thermal Runaway Event in an Airplane Cockpit. Presented at the American Industrial Hygiene Conference and Exposition (AIHce) in Philadelphia, PA. May 22, 2018.
- Jacobs, N., J. Bare, C. McMenamy, and J. Keenan. Potential Chemical Exposures Following Thermal Runaway in a Lithium Ion Battery. Presented at the American Industrial Hygiene Conference and Exposition (AIHce) in Seattle, WA. June 5, 2017. Presentation Number: 614.
- Jacobs, N., K. Towle, J. Keenan, and A. Monnot. Human Health Risk Assessment of NORM Exposure from Coal Ash. Presented at Society of Toxicology 55th Annual Meeting and ToxExpo in Baltimore, MD. March 16, 2017. Presentation Number 3257 P226.
- Jacobs, N., J. Lotter and A.M. Ierardi. Assessment of Potential Tremolite Exposures from Historical Vermiculite-Containing Consumer Products. Presented at Society of Toxicology 54th Annual Meeting and ToxExpo in New Orleans, LA. March 17, 2016. Presentation Number: 3651 P343.
- Kopelovich, L., N. Jacobs, and J. Keenan. Toluene in Nail Lacquers: A Proposition 65 Exposure Assessment. Podium presentation at the American Industrial Hygiene Conference & Exposition (AIHce) in San Antonio, TX. June 4, 2014; 1:30 PM - 5:00 PM. Presentation Number: SR-126-02.
- Keenan, J.J., N. Jacobs, and L. Kopelovich. 2014. Toluene and Dibutyl Phthalate in Nail Lacquers: A Proposition 65 Exposure Assessment. Presented at Society of Toxicology 53rd Annual Meeting and ToxExpo; Phoenix, AZ; March 23-27, 2014. Presentation Number: 2250h Poster Board 424.