U.S. Dept. of Labor, OSHA
Lee Anne Jillings, Director
Directorate of Technical Support & Emergency Management
200 Constitution Ave, NW
Rm N-3653
Washington, DC 20210
via email: spencer.michelle.a@dol.gov

July 7, 2022

Dear Director Jillings,

I am writing on behalf of The ALERT Project (ALERT), which is a project of Earth Island Institute, a nonprofit organization based in Berkeley, California. We are concerned that one of the exemptions to OSHA Part Number 1904 "Recording and Reporting Occupational Injuries and Illnesses," Subpart C Record Keeping Forms and Recording Criteria," Standard Number 1904.5 "Determination of Work-Relatedness" fails to adequately ensure that employers accurately record and report work-related illnesses associated with oil-chemical exposure [29 U.S.C. § 657(c)(2)].

Specifically, we request clarification of 1904.5(b)(2)(viii), an exemption to recording and reportability of an illness, which states an employer is "not required to record illnesses or injuries if… [t]he illness is the common cold or flu." Based on our experience,[1] some illnesses caused by oil-chemical exposure are most likely being misclassified as the common cold or flu because the initial symptoms for oil-chemical exposure mimic colds and flu.

Question 1: How does OSHA define the common cold and flu in 1904.5(b)(2)(viii)?

Question 2: - How should employers determine whether the common cold and flu is the source of an employee's illness, and thus exempt from recording and reporting requirements?

Question 3: How should employers handle a work-place exposure that can cause illness that mimics the symptoms of the common cold and flu?

We look forward to your reply. If anyone wishes to discuss this further, please contact me.

Sincerely,

Riki Ott, PhD, marine toxicology
Director, The ALERT Project
www.alertproject.org
206-853-2855
a project of Earth Island Institute
Berkeley, CA

[1] Please see Attachment A for a summary of the experience we have with symptoms associated with oil-chemical exposure.

Attachment A

Experience: In 1989, *Exxon Valdez* oil spill response (EVOS workers called the ubiquitous cold- and flu-like symptoms among frontline workers "the Valdez Crud." I personally witnessed this as I was commercial fishing in Prince William Sound and living in Cordova, Alaska, at the time. Exxon-run clinics logged 6,722 cases of respiratory illnesses among Exxon oil spill workers – roughly half of the workforce.[2]

The 1991 NIOSH Health Hazard Evaluation on the EVOS noted "the awareness of the dramatic increase in upper respiratory tract illnesses among workers and residents of Valdez led to intensified efforts by the Alaska Department of Health to ascertain the viral etiology of this illness and helped to calm fears that these respiratory conditions represented toxic effects of petroleum volatiles and the by-products of incinerated waste collected from the cleanup" (p. 23). However, the State of Alaska never found a bacterial or viral agent associated with the alleged cold and flu symptoms. NIOSH concluded, "*Based on available data*, there is no basis for recommending long term medical surveillance of the health of the workers involved in the cleanup of the oil spill" (emphasis added, NIOSH never subpoenaed Exxon's medical records) (p. 24).[3]

In 2001, investigative reporters linked the EVOS cold/flu outbreak and symptoms with long-term illnesses and deaths and the story went worldwide.[4]

In 2002, I partnered with Alaska Community Action on Toxics to conduct an informal pilot survey to investigate long-term health impacts of EVOS contract workers. During one interview – I'll never forget – one man mused after our interview, "I thought I had the Valdez Crud in 1989. I didn't think I'd have it for 13 years."

In 2003, our former summer intern conducted a formal survey for her master's thesis at Yale University.[5] She found, "EVOS workers who conducted jobs with high oil exposure or reported exposure to oil mists, aerosols, or fumes during cleanup work have a greater prevalence of symptoms of chronic airway disease than workers with less exposure. Nonsmokers with high oil exposure have significantly greater prevalence of symptoms of chronic bronchitis than nonsmokers with less oil exposure. High oil exposure was also associated with a greater prevalence of symptoms of neurological impairment, as well as with symptoms of multiple chemical sensitivity. Moderate chemical exposure was also

---

[2] Murphy K. Exxon's oil spill cleanup crews share years of illnesses, *Los Angeles Times,* Nov. 5, 2001. https://www.latimes.com/archives/la-xpm-2001-nov-05-mn-372-story.html (accessed 7/2/2022)

[3] Gorman RW, Berardinelli SP, Bender TR. NIOSH Health hazard evaluation report: HETA-89-200-2111 and HETA-89-273-2111, Exxon/Valdez Alaska oil spill. May 1991:1-70. https://www.cdc.gov/niosh/hhe/reports/pdfs/1989-0200-2111.pdf?id=10.26616/NIOSHHETA892002111

[4] Stranahan S. The Valdez Crud: Are crude oil and chemicals to blame for the health problems of workers who cleaned up Exxon's mess? *Mother Jones,* Mar/Apr 2003. https://www.motherjones.com/politics/2003/03/valdez-crud/ (accessed 7/2/2022)

[5] O'Neill A. Self-reported exposures and health status among workers from the Exxon Valdez oil spill cleanup. Master's thesis, Yale Univ., Dept. of Epidemiology and Public Health. 2003. 203 pp. https://secureservercdn.net/45.40.152.13/cko.8b7.myftpupload.com/wp-content/uploads/2016/05/oneill_thesis.pdf

associated with a greater reported prevalence of chronic airway disease and symptoms of multiple chemical sensitivity."

In 2004, I published Exxon's data and the relevant Alaska Dept. of Labor records in my book, *Sound Truth and Corporate Myth$* (*see* Figure 2, p. 57, and Appendix A, p. 450–454).[6]

In 2010, the BP Deepwater Horizon oil spill (DWHOS) workers called the same ubiquitous cold- and flu-like symptoms "the BP Syndrome." The same questions about worker health arose again because the government and industry had not followed up with research on long-term health problems among EVOS workers.[7] But no cases of respiratory illness were reported, likely because employers relied on the common colds and flu exemption from occupational injury and illness recording and reporting requirements, which was published as a final rule on January 19, 2001.[8] However, this time the early symptoms were noted by the public because coastal residents including children across four states in the oil-impacted region also experienced identical symptoms as the workers.[9]

In the ensuing public uproar, BP was forced to list as compensable many of the illnesses linked with initial oil-chemical exposures in the 2012 BP-Plaintiffs Medical Benefits Settlement (Exhibit 8, Table 1).[10] Acute specified physical conditions included acute rhinosinusitis, acute tracheobronchitis, acute exacerbation of pre-existing asthma and COPD, and acute pharyngitis (throat irritation), among other symptoms (Table 1). Description of these symptoms included nasal congestion, nasal discharge or post-nasal drip; headache, facial pain/pressure or sinus pain; decreased sense of smell; cough; sputum production; wheezing; or shortness of breath. Chronic specified physical conditions included chronic rhinosinusitis and reactive airways dysfunction syndrome (irritant-induced asthma) (Table 3).

In 2011, NIOSH published it Health Hazard Evaluation of the BP DWHOS.[11] In many of the surveys that were conducted, the most frequently reported symptoms were headache, upper respiratory symptoms (i.e., "cold and flu" symptoms) and symptoms consistent with heat stress. Workers who reported exposures to oil and dispersant reported higher prevalences of all types of symptoms compared to workers who were not exposed.

---

[6] Ott R. *Sound Truth and Corporate Myth$* (2004: Dragonfly Sister Press, Cordova, AK) https://rikiott.com/oil-spill-information/exxon-valdez/

[7] Wang M. Health effects after *Exxon Valdez* went unstudied. *Propublica*, June 30, 2010.

[8] Occupational Injury and Illness Recording and Reporting Requirements, Final rule. 66 Fed. Reg. 5,916 Jan. 19, 2001. https://www.govinfo.gov/content/pkg/FR-2001-01-19/html/01-725.htm

[9] Ott R. At what cost? BP spill responders told to forego precautionary health measures in cleanup, *Huffington Post,* May 17, 2010. https://www.huffpost.com/entry/at-what-cost-bp-spill-res_b_578784
Ott R. Unfinished business: The unspoken link between dispersants and sick children in the Gulf of Mexico, *Huffington Post,* Nov. 23, 2012. https://www.huffpost.com/entry/unfinished-business-the-u_b_2219493

[10] *Plaisance, et al., on behalf of the Medical Benefits Settlement Class v. BP Exploration & Production, et al.,* [BP] DEEPWATER HORIZON MEDICAL BENEFITS CLASS ACTION SETTLEMENT AGREEMENT, as Amended on May 1, 2012. Case 2:10-md-02179-CJB-SS, Doc. 6427-1, 05/03/12, No. 12-CV-968. https://www.laed.uscourts.gov/sites/default/files/OilSpill/6.pdf

[11] King BS, Gibbins JD. NIOSH Health Hazard Evaluation of [BP] Deepwater Horizon Response Workers: HETA 2010-0115 & 2010-0129-3138. August 2001. https://www.cdc.gov/niosh/hhe/reports/pdfs/2010-0115-0129-3138.pdf

In the decade-plus since the BP DWHOS, a significant body of scientific literature now confirms acute and chronic harm from oil-chemical exposures during oil spills. Literature reviews identify a suite of common acute symptoms of oil spill exposure including cold and flu-like symptoms, eye irritation, headache, nausea, dizziness, tiredness or fatigue, and skin rashes and lesions.[12] Field and lab studies identified inhalable oil mists (liquid droplets), chemically-dispersed oil aerosols (liquid droplets and small particles), and secondary organic aerosols,[13] which can travel long distances and penetrate deeply into human lungs[14] but are not accounted for with traditional analytical methods.[15] Clinical and lab studies reveal mechanisms of action and disease pathogenesis, progressing from molecular and cellular effects to organ dysfunction and systemic effects – respiratory disorders, genotoxic effects, and endocrine abnormalities.[16] Epidemiology studies confirm long-term

---

[12] Barry Levy and William Nassetta (2011), The Adverse Health Effects of Oil Spills: A Review of the Literature and a Framework for Medically Evaluating Exposed Individuals," *Int J Occup Environ Health* 2011; 17:121–167. https://pubmed.ncbi.nlm.nih.gov/21618948/

Laffon, Eduardo Pásaro & Vanessa Valdiglesias (2016), Effects of exposure to oil spills on human health: Updated review, Journal of Toxicology and Environmental Health, Part B, 19:3-4, 105-128. http://dx.doi.org/10.1080/10937404.2016.1168730

[13] Brock CA, Murphy DM, Bahreini R, Middlebrook AM. Formation and growth of organic aerosols downwind of the [BP] Deepwater Horizon oil spill. *Geophys Res Lett* 38 **2012**; L17805. doi.org/10.1029/2011GL048541

de Gouw JA, Middlebrook AM, Warnecke C, + 24, Watts LA. Organic aerosol formation downwind from the [BP] Deepwater Horizon oil spill. **2011** Mar; *Science* 331:1295–99. 10.1126/science.1200320

Middlebrook AM, Murphy DM, Ahmadov R, +25, and Ravishankara AR. Air quality implications of the Deepwater Horizon oil spill. Proceedings of the National Academy of Sciences. Phys Sci **2012**, 109: 20280–5. doi:10.1073/pnas.1110052108

Perring AE, Schwarz JP, Spackman JR, +11, Fahey DW. Characteristics of black carbon aerosol from a surface oil burn during the Deepwater Horizon oil spill. Geophys Res *Lett* **2011**; 38: 1–5. doi: 10.1029/2011GL048356

Ryerson TB, Aikin KC, Angevine WM, + 25, Watts L. Atmospheric emissions from the Deepwater Horizon spill constrain air-water partitioning, hydrocarbon fate, and leak rate. *Geophys Res Lett* **2012**; 38, L07803.

[14] Afshar-Mohajer N, Li C, Rule AM, Katz J, Koehler K. A laboratory study of particulate and gaseous emissions from crude oil and crude oil-dispersant contaminated seawater due to breaking waves. *Atmospheric Environ* **2018;** 179:177-186. https://doi.org/10.1016/j.atmosenv.2018.02.017

Afshar-Mohajer N, Fox MA, Koehler K. The human health risk estimation of inhaled oil spill emissions with and without adding dispersant. *Sci of the Total Environ*, **2019** 654:924-932. doi: 10.1016/j.scitotenv.2018.11.110

Afshar-Mohajer N, Lam A, Dora L, Katz J, Rule AM, Koehler K. Impact of dispersant on crude oil content of airborne fine particulate matter emitted from seawater after an oil spill. *Chemosphere* 256 **2020** 127063. doi: 10.1016/j.chemosphere.2020.127063

[15] Driskell WB, Payne JR. Macondo oil in northern Gulf of Mexico waters – Part 2: Dispersant-accelerated PAH dissolution in the [BP] Deepwater Horizon plume. *Marine Pollution Bulletin* **2018;** 129:412–419. https://doi.org/10.1016/j.marpolbul.2018.02.057

[16] D'Andrea MA, Reddy GK. Health consequences among subjects involved in Gulf oil spill clean-up activities. Amer J Med. 2013 Nov. 126(11):966-74. doi: 10.1016/j.amjmed.2013.05.014

D'Andrea MA, Reddy GK. Hematological and hepatic alterations in nonsmoking residents exposed to benzene following a flaring incident at the British petroleum plant in Texas City. Environ Health. 2014 Dec. 13:115. doi: [10.1186/1476-069X-13-115]

D'Andrea MA, Reddy GK. The development of long-term adverse health effects in oil spill cleanup workers of the BP DHOS offshore drilling rig disaster. *Front Public Health*. **2018;** Apr 26; 6:117. doi: 10.3389/fpubh.2018.00117

Denic-Roberts H, Rowley N, Haigney MC, Christenbury K, Barrett J, Thomas DL, Engel LS, Rusiecki JA. Acute and longer-term cardiovascular conditions in the [BP DWH] oil spill Coast Guard cohort. *Environ Int'nat* **2022**; 158: doi.org/10.1016/j.envint.2021.106937

respiratory diseases and document long-term neurological and cardiovascular damage, blood disorders, and cancers.[17] All of these harms have latency periods that extend well

Frances A, Hildur K, Barbera JA, +9, Fuster C. Persistence of breakage in specific chromosome bands 6 years after acute exposure to oil. *PLoS ONE* **2016**; 11(8): e0159404. doi:10.1371/journal.pone.0159404

Kim JA, Noh SR, Cheong HK, +6, Xhoi K. Urinary oxidative stress biomarkers among local residents measured 6 years after the Hebei Spirit oil spill. *Sci Total Environ.* **2017** Feb 15; 580:946-952. doi: 10.1016/j.scitotenv.2016.12.044

Lee I-J, Jang B-K, Lee J-W, Son B-S, Cheong H-K, Ha M, Choi Y-H. Association between metabolic syndrome and participation in cleanup work at the Hebei Spirit oil spill. *Korean J Environ Health Sci.* **2015**, 41:335–348. doi: 10.5668/JEHS.2015.41.5.335

Liu YZ, Miller CA, Zhuang Y, Mukhopadhyay SS, Saito S, Overton EB, Morris GF. The Impact of the Deepwater Horizon Oil Spill upon Lung Health-Mouse Model-Based RNA-Seq Analyses. Int J Environ Res Public Health. 2020 Jul 29;17(15):5466. doi: 10.3390/ijerph17155466.

Liu YZ, Roy-Engel AM, Baddoo MC, et al. The impact of oil spill to lung health-insights from an RNA seq study of human airway epithelial cells. Gene. 2016, 578:38–51. doi: 10.1016/j.gene.2015.12.016.

Major D, Derbes RS, Wang H, Roy-Engel AM. Effects of Corexit oil dispersants and the WAF of dispersed oil on DNA damage and repair in cultured human bronchial airway cells, BEAS-2B. Gene Rep. 2016;3:22-30. doi: 10.1016/j.genrep.2015.12.002

[17] Alexander M, Engel LS, Olaiya N, Wang L, Barrett J, Weems L, Schwartz EG, Rusiecki JA. The BP DHOS Coast Guard cohort study: A cross-sectional study of acute respiratory health symptoms. *Environ Res.* **2018** Apr; 162:196-202. doi: 10.1016/j.envres.2017.11.044

Amor-Carro O, White KM, Fraga-Iriso R, +5, Ramos-Barbon D. Airway hyperresponsiveness, inflammation, and pulmonary emphysema in rodent models designed to mimic exposure to fuel oil-derived volatile organic compounds encountered during an experimental oil spill. *Environ. Health Perspect*. **2020**; 128 (2), 27003. https://doi.org/10.1289/EHP4178

Chen D, Lawrence KG, Pratt GC, +10, Sandler DP. Fine particulate matter and lung function among burning-exposed [BP] Deepwater Horizon oil spill workers. *Environ Health Perspect* **2022** Feb; 130(2): 27001. doi: 10.1289/EHP8930McGowan CJ, Kwok RK, Engel LS, et al. Respiratory, dermal, and eye irritation symptoms associated with Corexit™ EC9527A/EC9500A following the BP DHOS: Findings from the GuLF STUDY. Environ Health Perspect. 2017 Sep, 125(9): 097015. doi: 10.1289/EHP1677

Choi KH, Park MS, Ha M, Hur J-I, Cheong H-K. Cancer incidence trend in the Hebei Spirit oil spill area, from 1999 to 2014: An Ecological Study. *Int. J. Environ. Res. Public Health* **2018**; 15(5), 1006. doi:10.3390/ijerph15051006

Eastern Shore Community Health Project, using National Cancer Institute statistics for 2013–2017. Updated in **2021**. http://easternshorechp.org/cluster-maps/

Hildur K, Templado C, Zock JP, +10, Fuster C. Follow-up genotoxic study: Chromosome damage two and six years after exposure to the Prestige oil spill. *PLoS One* **2015** July; 10:e0132413. doi:10.1371/journal.pone.0132413

Jayasree K, Engel LS, Wang L, Schwartz EG, Christenbury K, Kondrup B, Barrett J, Rusiecki JA. Neurological symptoms associated with oil spill response exposures: Results from the Deepwater Horizon oil spill Coast Guard cohort study. *Environ Int.* **2019** Oct; 131: 104963. doi: 10.1016/j.envint.2019.104963

McGowan CJ, Kwok RK, Engel LS, Stenzel MR, Stewart PA, Sandler DP. Respiratory, dermal, and eye irritation symptoms associated with Corexit™ EC9527A/EC9500A following the BP DHOS: Findings from the GuLF STUDY. *Environ Health Perspect*. **2017** Sep, 125(9): 097015. doi: 10.1289/EHP1677

Noh SR, Cheong HK, Ha M, et al. Oxidative stress biomarkers in long-term participants in clean-up work after the Hebei Spirit oil spill. Sci Total Environ. 2015 May 15, 515-516:207-14. doi: 10.1016/j.scitotenv.2015.02.039.

Onyije FM, Hosseini B, Togawa K, Schüz J, Olsson A. Cancer incidence and mortality among petroleum industry workers and residents living in oil producing communities: A systematic review and meta-analysis. Int'l J Environ Research Pub Health 2021 Mar 18,4343. doi.org/10.3390/ijerph18084343

Peres LC, Trapido E, Rung AL, et al. The [BP] Deepwater Horizon oil spill and physical health among adult women in southern Louisiana: The Women and Their Children's Health (WaTCH) Study. Environ Health Perspect. 2016 Aug, 124(8):1208–13. doi: 10.1289/ehp.1510348

beyond the 7- to 10-day lifecycle of the common cold and flu. A person simply does not have symptoms of a common cold for months, years, or decades.

Quist AJL, Rohlman DS, Kwok RK, et al. Deepwater Horizon oil spill exposures and neurobehavioral function in GuLF STUDY participants. Environ Res. 2019 Dec;179(Pt B):108834. doi: 10.1016/j.envres.2019.108834

Rusiecki J, Denic-Roberts H, Thomas DL, Collen J, Barrett J, Christenbury K, Engel LS. Incidence of chronic respiratory conditions among oil spill responders: Five years of follow-up in the Deepwater Horizon oil spill Coast Guard cohort study. **2022** Jan; 203:111824. doi: 10.1016/j.envres.2021.111824

Summarco PW, Kolian SR, Warby RA, Bouldin JL, Subra WA, Porter SA. Concentrations in human blood of petroleum hydrocarbons associated with the BP/Deepwater Horizon oil spill, Gulf of Mexico. *Arch Toxicol.* **2016** Apr; 90(4):829-37. doi: 10.1007/s00204-015-1526-5

Venn-Watson S, Colegrove KM, Litz J, +18, Rowles T. Adrenal gland and lung lesions in Gulf of Mexico Common Bottlenose Dolphins (Tursiops truncatus) found dead following the [BP] Deepwater Horizon Oil Spill. PLoS ONE **2015** 10(5): e0126538. doi: 10.1371/journal.pone.0126538