

Preventing Valley Fever among workers constructing solar farms

The Challenge

Valley Fever (coccidioidomycosis) is a potentially fatal infection caused by *Coccidioides*, a soil fungus found in the southwestern United States. People become infected by inhaling fungal spores dispersed by wind or soil-disturbing activities. The arid, desert-like environments where this fungus thrives are also where the rapidly-expanding solar power industry is building large power-generating facilities ("solar farms"). When the California Department of Public Health (CDPH) and a county public health department independently identified cases of Valley Fever among construction workers building two large solar farms, a public health investigation was needed to better characterize this outbreak and to prevent further illnesses.

The Response

CDPH, Cal/OSHA, and the county public health department visited the two solar farms, interviewed employees and supervisors, and observed work practices. CDPH reviewed occupational illness reports and infectious disease surveillance systems and identified a total of 44 cases among workers across a variety of occupations, including electricians, equipment operators, laborers, carpenters, and managers and supervisors. All workers at these large outdoor sites were exposed to windborne spores released by soil-disrupting activities, even those who did not engage in soil-disruptive work. CDPH recommendations to the general contractors of both solar farms included improving worksite dust-control measures, implementing and enforcing criteria for suspending work on the basis of wind and dust conditions, providing all outdoor workers with NIOSH-approved respiratory protection, and ensuring the reporting of cases among employees to local health jurisdictions and Cal/OSHA.



The Impact

CDPH's health protection recommendations from this investigation continue to be utilized by local health departments asked to review applications for new solar projects; the details of the investigation were presented at numerous local and national venues and published in *Emerging Infectious Diseases*. This response highlights the importance of collaborations between infectious disease and occupational health specialists, local public health, and state OSHA programs to protect workers from infectious diseases.

For more information, visit the CDPH Occupational Health Branch web pages:

Preventing work-related Valley Fever:

<https://www.cdph.ca.gov/programs/ohb/Pages/Cocci.aspx>

Coccidioidomycosis occupational health issues, a free online continuing medical education (CME) course: <https://cmecalifornia.com/Activity/1109096/Detail.aspx>

A description of this investigation has been published in *Emerging Infectious Diseases*:
http://wwwnc.cdc.gov/eid/article/21/11/15-0129_article