

Journal of Toxicology and Environmental Health, Part A: Current Issues

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/uteh20>

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Journal of Toxicology and Environmental Health, Part A, 75:1359–1370, 2012

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ISSN: 1528-7394 print / 1087-2620 online

DOI: 10.1080/15287394.2012.721168

INDOOR AIR QUALITY IN PORTUGUESE ARCHIVES: A SNAPSHOT ON EXPOSURE LEVELS

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Indoor air quality recently entered legislation in Portugal. Several parameters must be evaluated and kept within limits in order to obtain a certification for air quality and energy consumption. Certification parameters were analyzed in two Portuguese archives in order to assess indoor air quality both for people attending or working on these premises and for maintenance of a written heritage that must be retained for future generations. Carbon monoxide (CO) and carbon dioxide (CO₂), formaldehyde, and fungal counts were kept within stipulated limits. Relative humidity (RH), volatile organic compounds (VOC), particulate matter (PM₁₀), and ozone (O₃) showed values above legislated levels and justified the implementation of corrective measures. In terms of conservation, studies on the limit values are still needed, but according to the available international guidelines, some of the analyzed parameters such as PM₁₀, O₃, and RH were also above desirable values. Corrective measures were proposed to these institutions. Although this study was only of a short duration, it proved valuable in assessing potential eventual problems and constitutes the first Portuguese indoor air quality assessment taking into consideration both aspects of an archive such as human health and heritage safekeeping.