



National Aeronautics and
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Langley Research Center Safety Alert

Date: April 11, 2002

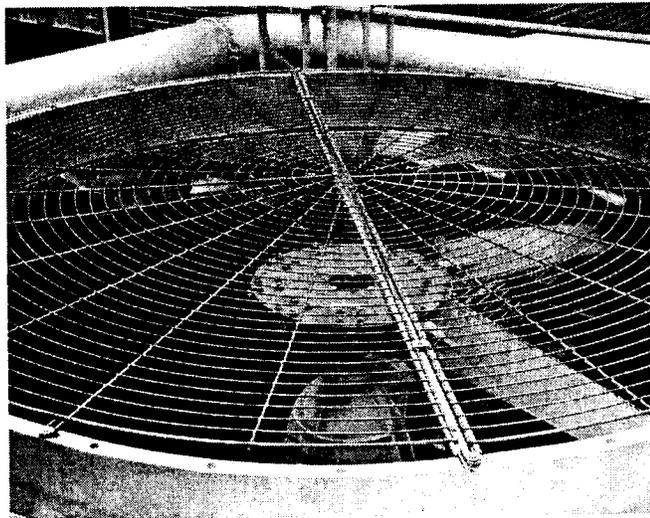
TO: Facility Safety Heads
Facility Coordinators

FROM: 429/Head, Office of Safety and Facility Assurance, OSMA

SUBJECT: Potential Hazard From Cooling Tower Fans.

A recent mishap where a cooling tower fan blade failed, has brought to light two important features of systems that contain rotating fans. First, it is very important to have a containment screen, as seen in the figure to the right, which kept all debris within the cooling tower.

Consequently, debris did not become projectiles that could cause personal injury. A second important feature is an operational vibration switch. The mishap investigation determined that the vibration switch was not working properly. Also, a review of several other cooling towers at LaRC discovered inoperable vibration switches and switches that have been moved from periodic maintenance to the run to failure maintenance list.



Facility Safety Heads (FSHs) and Facility Coordinators (FCs) need to verify that all fans, whether in a small air conditioning unit or a large cooling tower, are properly guarded. Also, large systems with vibration switches need to have the switch's operational status checked. FSHs and FCs should also ensure that vibration switches are being checked during annual maintenance activities and have not been incorporated into the run to failure list. If you have any questions, please contact Grant Watson at 43069.

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103/L. M. Couch *JMC*

(This Safety Alert to be posted on Facility Bulletin Boards for a Minimum of 30 days.)