

## DOCKETED

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### **Section 120.3 Pipe insulation protection**

*Additional submitted attachment is included below.*

## INTENDED CHANGES TO ADDRESS CONCERNS WITH 45-DAY LANGUAGE

issues related to the 2019 Energy Code 120.3

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The 45 day language for Section 120.3 now has language that contradicts the intended requirement. Pipe Insulation itself cannot provide the protection from all the required potential damage and certainly not continuous solar and UV exposure. Pipe insulation manufactures instruction are to protect if outdoors, there are however overzealous marketing which is misinforming the industry, insulation with UV in of itself does not meet the standard and certainly is not long term. This is limited UV and does not include shielding from Solar radiation, in addition there is no consensus UV testing standard as UV testing itself can be unreliable as location of installation itself is the most determining factor which can vary greatly on the amount of exposure, UV test also do not include heat which is part of the solar radiation this significantly can damage material itself and increase chemical reactions leading to degradation of the material. So saying the surface is misleading and confusing as it can mean the surface of the insulation which again goes against the intent of the code

The protection should be removable not only for maintenance but to allow replacement if damaged physically or otherwise to preserve the pipe insulation. Allowing insulation to continue to provide thermal conductivity and to maintain energy saving, reducing cost and pollution to California by not having to replace insulation during maintenance when simply changing new equipment will lead to substantial saving for California Home and building owners.

### Proposed change to standard

(b) **Insulation Protection.** Pipe Insulation shall be protected from damage, including ~~that damage~~ due to sunlight, moisture, physical, equipment maintenance, and wind., Protection shall, at minimum, include ~~ing but not limited to,~~ the following:

1. Pipe Insulation exposed to weather shall ~~include, or be installed with~~ protected by, a ~~an outer surface or~~ cover suitable for outdoor service. The ~~surface or~~ cover shall be water retardant, removable for maintenance and provides shielding from solar radiation that can cause degradation of the material.

2. Pipe Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space ~~shall include, or be protected by,~~ have a Class I or Class II vapor retarder. All penetrations and joints of ~~which~~ shall be sealed. Adhesive tape shall not be used to provide this protection