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Comments: I am writing to express my concern about this proposed rule as it relates to cave access. It seems that these proposed rules were written primarily in response to issues surrounding recreational rock climbing, and were not written with adequate consideration of the unique issues surrounding cave exploration. As such, the wording does not distinguish between surface and subterranean fixed anchors, which would likely have unintended consequences. While the proposed rule might be appropriate for outdoor climbing, caves are fundamentally different in a number of significant ways that make fixed anchors more important than for outdoor climbing. The proposed rules make no distinction between fixed anchors on a rock face and fixed anchors in caves. Given this oversight, it would be prudent to clarify that these rules are intended for surface climbing, not subterranean environments, and draft separate rules that adequately address the unique nature fixed anchors play in cave exploration.

First, due to the sensitive nature of the cave environment, participants generally try to limit their impact to paths through a cave, and avoid touching delicate cave formations. When rope-access is necessary, bolts allow for precise anchor placement to prevent the rope-path from contacting or damaging formations, in a way that would not be possible with non-fixed anchors. Fixed anchors are also instructive to future visitors, as they effectively concentrate the human impact on a narrow section of cave wall, preserving the aesthetic and ecological value of the cave in a way that would not be possible if every visitor had to devise their own rigging. As such, restricting the use of fixed anchors in caves would actually serve to harm the delicate environment these rules are intended to protect.

Secondly, fixed anchors make cave exploration significantly safer for all visitors, including those doing scientific research. Due to the nature of cave morphology, when rope-access is necessary, a smooth cave wall is often the only option for a safe anchor point, especially in confined areas. By restricting the use of fixed anchors in caves, you would force people to use less-safe anchors, which could result in serious injury, and necessitate cave rescue operations, which are slow, costly, and have the potential to cause further damage to the sensitive cave environment, far worse than that caused by a couple anchor bolts in the wall.

Which brings me to my last point: cave rescue. Due to the unique nature of caves, rescue is far more difficult than anywhere on the surface. If someone gets injured in a cave, you can't just air-lift them out with a helicopter. It takes teams of people with specialized equipment, knowledge, and abilities, often traveling from other parts of the country or even other parts of the world to orchestrate the safe extraction of an injured person from deep inside a cave. Caves that are more confined, deeper, longer, and require more technical rope access only serve to increase the difficulty of the cave rescue, and the scale of the rescue operation. Having fixed anchors already in place significantly speeds up the process, and helps to get victims out of the cave and to definitive medical care more quickly. It's also better to have fixed anchors placed by someone who had time to fully consider their placement, both for safety and to avoid damage to cave formations, rather than having to place them on the fly, while in the middle of a cave rescue. Additionally, some rock types found in caves (eg lava tubes) necessitate glue-in anchors, which would not be practical in a cave rescue scenario unless they were placed in advance. Aside from fixed anchors reducing the probability of a serious injury deep in a technical cave, if someone does get injured in a cave, then it's in everyone's best interest to have properly placed fixed anchors already installed to expedite a safe cave rescue process.

Because it seems that caves were not adequately considered when drafting these proposed rules, I would ask that you amend these rules to specifically exclude subterranean environments. Given the unique nature of caves, and that fixed anchors play a vital role in the safe exploration of caves in a way that is totally different than face climbing, it would make sense to consider fixed anchors in caves separately. If rules around fixed anchors

in caves are deemed to be necessary, then a separate rule-making process should be used; one that addresses the unique necessity of fixed anchors in a cave environment, and the way that carefully placed fixed anchors actually serve to improve safety, while also preserving the aesthetic and ecological value of the cave.

Thank you for your consideration