**CR for pow divide-by-zero case**

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**C FP Group**

CR nnn  
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Reference Document: IEC 60559

Subject: pow divide-by-zero case

Summary

The C specification for the `pow` function in F.10.4.4 says

— `pow(±0, −∞)` returns `+∞` and may raise the “divide-by-zero” floating-point exception.

However, IEC 60559:2011 explicitly disallows exceptions in this case:

`pow(±0, −∞)` is `+∞` with no exception

which is consistent with that standard’s general specification for `divideByZero`:

The `divideByZero` exception shall be signaled if and only if an exact infinite result is defined for an operation on finite operands

There’s no indication that this will change in IEEE 754-201x.

The following suggested TC makes the C specification consistent with IEC 60559.

**Suggested Technical Corrigendum**

In F.10.4.4, change:

— `pow(±0, −∞)` returns `+∞` and may raise the “divide-by-zero” floating-point exception.

to:

— `pow(±0, −∞)` returns `+∞`. 