

Dr. Kamal Araj
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Dear Dr. Araj:

As you requested, enclosed is a decay heat curve and a single page discussion of it. This is the same information that was sent to Dr. Findlayson at Snowmass, Colorado.

Three copies are enclosed.

Sincerely,

Christopher Ryder
Accident Source Term Program Office, RES

Enclosures: As stated

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Notes About The Decay Heat Curve

- (1) How current are the curves?
- (2) Is the decay heat from the actinides included in the curves?
- (3) What are the equations describing the curves?

Since the ANS, no data has been published. The NRC and the EPRI sponsored the work to produce the curves and they were both satisfied with the results. The curves are within a factor of 2 to experimental data. Therefore, these curves are up-to-date.

The decay heat from the actinides is not included in the curves. Equations have been recommended to calculate the decay heat for the actinides up to plutonium-239. At the time that the standard was set, 1979, the actinides above plutonium-239 were considered unimportant.

I do not have equations describing the curves. The equations appear in the following reference:

Decay Heat Power in Light Water Reactors (1979)
ANSI/ANS - 5.1 - 1979