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over an argon fill for the Viking mission, the former was not considered further in this study.

B. 3P/2N RTG

In this section the performance of a 3P/2N RTG is presented for the Viking mission. With the present Nimbus III 625 watt fuel inventory, the RTG weight is 26.7 pounds and the nominal power output is 26.6 watts at end-of-mission.

1. Design Description

The 3P/2N RTG unit design option evaluated for the Viking mission, is similar to that of the present SNAP 19 Nimbus III RTG with the following exceptions:

- a. The fins and housing have been optimized for the Viking mission to the configuration shown in Fig. II-1.
- b. A 625 watt intact-impact heat source (IIHS), identical to that for the TAGS-85/2N design except for fuel loading, has been substituted for the Nimbus III 625 watt intact re-entry heat source (IRHS) with the latter considered as an alternate.

With the exception of the thermoelectric converter P-leg and shoe materials (see Fig. II-14), the detailed description and construction materials are identical to those previously presented for the TAGS-85/2N RTG in Section II-A.

A summary of design characteristics and weight parameters for a 3P/2N RTG unit is presented in Tables II-4 and II-5.

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