QUESTION 4. What are the by-products of the enrichment process as it will occur at the Homer facility and what danger could they pose to the community and the environment? Will the by-products be stored at the facility and, if so, for how long? What regulations govern the storage of such waste, particularly with regard to the type of container which may be used for storage?

## ANSWER.

The by-products of uranium enrichment, in general, consist of small amounts of uranium-contaminated wastes, primarily from service and maintenance activities, and large amounts of depleted uranium hexafluoride, called tails. For typical levels of enrichment, the amount of tails is approximately 80 to 90 percent of the amount of natural uranium hexafluoride feed. Since no license application for the Homer facility has been submitted to the NRC, we cannot be more specific at this time.

We do not know what disposition is planned for the by-products; however, based on experience at other facilities, we expect that the service and maintenance wastes would be shipped for burial at licensed low-level radioactive waste disposal sites and that the tails would be stored on site in authorized steel containers similar to those in which the uranium hexafluoride feed is transported. The uses of tails are limited to chemical recovery of the depleted uranium for use as heavy metal and to recovery of hydrofluoric acid, which can be recycled for use in uranium processing. Although there are no specific NRC regulations that address the storage of the by-products of uranium enrichment,

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## QUESTION 4. (Continued) - 2 -

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 10 CFR Part 20 contains general standards for protection against radiation which are applicable to such storage. In addition, whether the facility is licensed under 10 CFR Part 50 or Parts 40 and 70, relevant provisions of Parts 40 and 70 about possession and use of radioactive material also apply to storage of the byproducts of uranium enrichment.