



October 3, 2006

Jim Schmidt, CHP
Nuclear Materials Safety Branch
Division of Radiation Safety and Safeguards
U.S. Nuclear Regulatory Commission
Region 1, 475 Allendale Road
King of Prussia, Pennsylvania 19406-1475

J-8

03030666

Re: Amendment to License 37-20826-02 to permit Waste Blending

Dear Mr. Schmidt:

In view of the approaching cut-off date for out-of-compact use of Barnwell in 2008 and subsequent loss of disposal access for higher than class A wastes, Alaron would like to be able to offer waste mixing services that would blend higher waste classes with Class A waste with the resulting mixture being Class A.

The NRC's Branch Technical Position on Concentration Averaging and Encapsulation (BTP) issued January 17, 1995, paragraph 3.9, Alternative Provisions, states in part that "Alternatives to the determination of radionuclide concentrations for waste classification purposes, other than those defined in this technical position, may be considered acceptable."

The BTP elsewhere states (paragraph 3.1), "... the classification of a mixture, using the sum of the fractions rule specified in 10 CFR 61.55, should be based on ... the volumetric- or weight-averaged nuclide concentrations of the mixture, provided that the concentrations of the individual waste type contributors to the mixture are within a factor of 10 of the average concentration of the resulting mixture."

Alaron requests authorization to mix to dilute higher waste classes with Class A waste to produce a Class A waste (even when the concentrations of the individual waste type contributors to the mixture are greater than a factor ten of the average concentration of the resulting mixture) as long as the resulting mixture is homogenous with respect to waste type and activity concentration. Mixing will be confined to waste forms that are easily mixed (shredded trash, ion exchange resin, charcoal, soil, or soil-like material). The mixed material will be sufficiently homogeneous so that the radionuclide concentration in any 6 liter volume (the nominal volume of an 8 inch high by 8 inch diameter core corresponding to an intruder's water well attempt) will be within a factor of ten of any other 6 liter volume in the waste package.

Should you have any questions or need further information, please contact me (email harversonj@alaron-nuclear.com, telephone 724-535-5777 extension 234), or our health physicist, Jonathan Wallace (wallacej@alaron-nuclear.com, 724-535-5777, ext 214).

Sincerely,

Joseph Harverson
President

RECEIVED
REGION 1
2006 OCT -5 PM 3:00

This is to acknowledge the receipt of your letter/application dated

10/3/2006, and to inform you that the initial processing which includes an administrative review has been performed.

☒ Amendment 37-20826-02 There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

☐ Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number 139533.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.