



United States
Department of
Agriculture

Agricultural
Research
Service

Southern Plains Area
Knippling-Bushland
U.S. Livestock Insects
Research Laboratory

2700 Fredericksburg Rd.
Kerrville, TX
78028-9184

August 25, 1997

SUBJECT: RAM Burial Site at Kerrville, Texas

TO: John Jensen
Director, Radiation Safety Staff
USDA, Office of Personnel, Safety & Health Management Division
4700 River Road, Unit 91
Riverdale, MD 20737

FROM: Sidney E. Kunz, Ph.D.
Laboratory Director

In follow-up to your letter dated 9/30/96 and our return correspondence of 10/24/96 and 6/18/97, it is our understanding that we were not removed from the burial site list because 8 mCi of C-14 labeled Imidan had been sprayed onto a steer, burned and the ashes buried. It is our further understanding that the cutoff for removal from the burial site list was 5 mCi of C-14.

Regulations for the disposal of radioactive waste are listed in 10CFR§20.2005(a)(2) as follows:
§20.2005 Disposal of specific wastes.

- (a) A licensee may dispose of the following licensed material as if it were not radioactive:
- (2) 0.05 microcurie (1.85kBq), or less, of hydrogen-3 or carbon-14 per gram of animal tissue, averaged over the weight of the entire animal.

A typical steer used at this laboratory weighs 400-600 lbs. For the purpose of this calculation, we will use the conservative assumption that the steer weighed only 400 lbs.

We know that 1 lb = 454 g, therefore 400 lb = 400 lb X 454 g/lb = 181,600 g;
and 1 mCi = 1000µCi, therefore 8 mCi = 8000µCi.

Since the 8000µCi of C-14 labeled Imidan was sprayed onto a steer weighing at least 181,600 g (minimum), it follows that the specific activity of the C-14 under 10CFR§20.2005(a)(2) was no more than

$8000\mu\text{Ci}/181,600\text{ g} = 0.044\ \mu\text{Ci/g}$ animal tissue (whole steer) which is less than the (0.05 µCi of C-14)/(g animal tissue) specified in the regulation as eligible for disposal without regard to its radioactivity.

Because the steer carcass qualifies as disposable as if it were not radioactive as specified in the regulations [10CFR§20.2005(a)(2)], the site where the ashes of the steer were buried should not be considered a radioactive burial site. We, therefore, request removal of the Kerrville, TX, site from the burial site list.

cc: C. A. Onstad, AD, SPA
K. Temeyer, LRPO, KBUSLIRL