

# A. E. C. DENIES RAYS KILLED UTAH SHEEP

## Exhaustive Study Undertaken After Stockmen Complained Losses Were Excessive

SPECIAL TO THE NEW YORK TIMES.

CEDAR CITY, Utah, Jan. 16—  
The Atomic Energy Commission  
closed the book this week on one  
of the most exhaustive investi-  
gations in its history.

The inquiry revolved not  
around the hydrogen bomb, or  
why electrons behaved so curi-  
ously, but around the The Demise  
of the Utah Sheep.

Last May, stockmen in south-  
ern Utah complained to the com-  
mission that an inordinately large  
number of their ewes and lambs  
had been dying.

The commission had just  
staged a series of atomic tests at  
its Nevada proving ground, near  
the Utah line, including the big-  
gest detonation ever set off on  
this continent. The suspicion was  
that radioactivity from the ex-  
plosions had killed the sheep.

Upwards of 5,000 sheep had  
grazed in the area, the closest  
flocks about forty miles from the  
test site, and upwards of 1,000  
had come to untimely ends.

The episode presented the A.  
E. C. with one of the most tick-  
lish situations since it began its  
continental tests.

The agency was certain before  
it started the tests that they  
could involve no hazard to any-  
body or anything off the test  
reservation. Something like \$10,-  
000,000 has been invested in per-  
manent facilities at the test site,  
and the commission's develop-  
ment program is geared to its  
operation.

Yet if a thousand sheep had  
been killed by radiation, the in-  
escapable inference was that it  
might have been a thousand hu-  
man beings.

Therefore the commission  
spared no effort to trace any con-  
nection between the explosions  
and the mortality of the sheep.  
The quest—which, to obviate any  
suspense, had a negative outcome—  
involved atomic installations  
from Washington, D. C., to Wash-  
ington state, and took more than  
six months.

On June 5 and 6 a joint team  
of six medical experts from the  
A. E. C. and the United States  
Health Service went to the Cedar  
City area, and with Utah offi-  
cials and representatives of the  
stockmen performed autopsies on  
some of the sheep and took blood,  
bone and tissue specimens.

A week later, a health service  
doctor, with doctors from the  
Utah Bureau of Animal Hus-  
bandry and the University of  
Utah Radiobiology Laboratory  
procured additional specimens  
from dead, sick and well sheep,  
and took testimony from stock-  
men.

### Burns Are Investigated

Three days later the inquiry  
was put on a national basis, un-  
der the coordination of the com-  
mission's Division of Biology and  
Medicine in Washington, D. C.

The following day, Dr. Paul B.  
Pearson, A. E. C. medical expert,  
with division associates and ex-  
perts from both the Utah Agri-  
cultural College and the Univer-  
sity of Tennessee, which collabo-  
rates with the commission's Oak  
Ridge, Tenn., branch, went to  
Cedar City and examined more  
sheep and collected water, soil  
and plant samples from the graz-  
ing area.

Throughout the rest of June  
and July, all the investigators  
pursued tests at their respective  
laboratories. On Aug. 3 and 4,  
twenty of the investigating per-  
sonnel met at Salt Lake City to  
exchange notes.

A week later, representatives  
of the commission, the health  
service, the Bureau of Animal In-  
dustry, the Utah State Health  
Department and the Utah State  
Agricultural College met with  
sheepmen in Cedar City to dis-  
cuss their research and get more  
data.

Some burns on the sheep re-  
sembled atomic beta-ray burns.  
The commission's Los Alamos,  
N. M., scientific laboratory, the  
center of its bomb development,  
was set to work exposing test  
sheep to beta rays to see if the  
sores matched. They did not.

Meanwhile, on the chance that  
the sheep might have swallowed  
radioactive iodine, the A. E. C.'s  
Hanford, Wash., laboratories  
were set to work testing sheep's  
thyroid glands (where iodine  
lodges). It was established that  
the range sheep could not have  
gotten more than one-fortieth of  
the minimum injurious dose.

On Oct. 27, the principal in-  
vestigating personnel met once  
more, at Los Alamos, compared  
notes, and prepared a final re-  
port on the inquiry.

### Wider Studies Planned

It was presented to the sheep-  
men at Cedar City Wednesday.  
It recapitulated the studies in  
exhaustive detail, concluding that  
no evidence could be found that  
enough radioactive material of  
any sort had landed on the graz-  
ing area to cause the sores and  
deaths among the sheep.

Dr. Pearson said funds were  
being made available to the Utah  
State Agricultural College and  
the University of Nevada for  
"follow-up" studies.

"If and when another atomic  
detonation is scheduled in Ne-  
vada, we will have our teams on  
the ground to immediately begin  
an extensive study of the possible  
effects on vegetation and live-  
stock," Dr. Pearson pledged.

The investigators did not go  
into the veterinary side of the  
mystery and suggest what might  
have killed the sheep.

In view of the fact that there  
were similar deaths later in the  
year among sheep grazing entire-  
ly outside the range of atomic-  
blast effects, there was unofficial  
speculation that the mortality  
might have resulted from a com-  
bination of other circumstances.

These could be drought, plus  
poor grazing, which might lead  
sheep to nibble unaccustomed  
vegetation, among which there  
are known to be poisonous plants.

The finding was not much con-  
solation to the sheepmen, but by  
the same token implied reassur-  
ance to the population at large—  
and to the A. E. C.