REDIRECT EXAMINATION BY MR. YANNACONE:

Let the record show I would like to apologize to the Court if I have inconvenienced it in any way by way of outburst.

Q. Doctor, if I try and put any words in your mouth, you will spit **them out, won't** you?

THE COURT: Counsel, that remark is absolutely uncalled for, and I am telling you your right to practice in this court is going to be withdrawn if you keep making snide or sarcastic remarks.

Q. Doctor Loucks, with respect to the $4 million systems model, will it be valuable for regional transport systems similar to the area around the Rulison Regional Transport System"!

A. Yes, it will.

Q. Are there other such areas in the State of Colorado?

A. Yes, sir.

Q. Are there other such areas along the Mesa Verde formation where we can assume that further underground detonation to stimulate gas wells will occur"?

A. Yes.

Q. Doctor, would you refer to your diagrammatic representation of orographic precipitation and indicate... whether precipitation can occur as a result of the flaring process itself?

A. Yes, this relates to the heat released by the flaring process, which in itself creates an updraft, a vertical movement of air, which will move an air mass with its water content, included in it tritiated water, released vertically through the atmosphere some distance. [The Post-Shot Evaluation] estimates this up to 300 meters, which would result in a lowering of the temperature around that air mass, and this in itself over horizontal topography can result in the induction of local showers.

Q. In other words, then, the precipitation that occurs in the orographic form the orographic shower, as it were, occurs after

the tritiated material enters the cloud or the horizontal-lateral movement of the atmosphere, and at some point removed from the site of release, when the elevation is high enough so that the adiabatic lapse rate causes the dew point of the air mass to be exceeded?

A. That's right.

Q. In other words, stopping the flaring when the rain cloud...

MR. EARDLEY: Just a moment, this is going to be another leading question. When we get to flaring, I would like to have him ask a question and not tell tile witness.

THE COURT: All right.

Q. Doctor, what do you understand by flaring?

A. As I understand it, this is the burning of the tritium as it escapes fron1 the stack, so as to produce trit1ated water [vapor].

Q. Docs the burning of this gas, this tritiated gas, do anything to the radioactive progenies of the tritium.

A. No.

Q. Doctor, assuming... the tritiated gas comes out, some of it as gas, some of it as water vapor following burning or as water vapor coming up out of the pipe, does it make any difference in your opinion with respect to the potential for the development of orographic showers downwind of that release?

A. No, it would not matter what the origin of the tritiated water was.

Q. ... Without burning the tritiated gas! to make it tritiated

MR. SEARLS: I object because, first, he's not an expert on tritium, and in the second place, he has not shown he has done any monitoring of the character which he is asking him to testify.

MR. Y ANNACONE: I will qualify further.

TIIE COURT: No, I'm going to permit him to answer the question. The objection is overruled.

A. One, you would have to look at the atmospheric circulation of this area and hydrologic circulation of this area in some detail before one could determine how big a monitoring program it would be. It would obviously be substantial but probably less than a complete study.

Q. Would the monitoring program outlined in any of the exhibits you have examined he adequate in the absence of a full s**ystems description?**

A. No, I do not believe that any of the monitoring programs as described in these documents is adequate.

Q. Doctor, in the course of your preparation for this hearing, did you have occasion to read this portion of the testimony?

Reading from the transcript…

Q. Mr. Fuller, what is your function, if any, with respect **to Project Rulison?**

A. Battelle Memorial Institute was given the opportunity for being responsible for making an ecological survey of the area around Project Rulison to ascertain whether in our opinion any adverse ecological consequences would result from the project.

Q. Did you conduct the survey?

A. I did.

Q. Would you briefly outline the extent of the survey"?

A. Yes. On consultation or taking into account the assumptions that are made by those expert in the field of containment and nuclear detonation...

Q. Doctor, assuming that [testin1onyJ in addition to all the other assumptions that Mr. Eardley and Mr. Searls ask you to make, docs that in any way change your opinion?

A. No.

Q. Doctor, assuming a substantial and extensive monitoring program based upon a model similar to the one you have

described as incomplete here, will this furnish usable data for accurate prediction of any of the distribution transfer or transport mechanisms of tritium following flaring or distribution of a second project similar to project Rulison"!

A. No, in general a large-scale monitoring program does not result in any considerable degree of predictive capability. It allows a limited degree of prediction under certain situations, on occasion, but it avoids the question of understanding the system well enough so that you have good predictability.

MR. YANNACONE: I have no further questions.