

212

RECORD #212

TITLE: ...Dissolved Noble Gases in Liquid Effluents and Compliance
With Tech Spec. 3.11.1

FICHE:



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUN 1 2 1987

MEMORANDUM FOR: Frederick J. Hebdon, Chief
Inspection, Licensing and Research Integration Branch
Program Management, Policy Development and Analysis Staff, NRR

Ronald R. Bellamy, Chief
Emergency Preparedness and Radiological Protection Branch
Region I

Douglas M. Collins, Chief
Emergency Preparedness and Radiological Protection Branch
Region II

Wayne D. Shafer, Chief
Emergency Preparedness and Radiological Protection Branch
Region III

Lawrence A. Yandell, Chief
Radiological Protection and Safeguards Branch
Region IV

Frank A. Wenslawski, Chief
Emergency Preparedness and Radiological Protection Branch
Region V

FROM: LeMoine J. Cunningham, Acting Chief
Radiation Protection Branch
Division of Radiation Protection and Emergency Preparedness

SUBJECT: HEALTH PHYSICS POSITION CONCERNING THE ROLE OF DISSOLVED
NOBLE GASES IN LIQUID EFFLUENTS AND COMPLIANCE WITH
TECHNICAL SPECIFICATION 3.11.1

Standard Technical Specification 3.11.1 states:

The concentration of radioactive material released in liquid effluents to UNRESTRICTED AREAS (See Figure 5.1-3) shall be limited to the concentrations specified in 10 CFR Part 20, Appendix B, Table II, Column 2 for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall be limited to 200 pico-curies/ml total activity.

In response to an inquiry from a licensee, RPB said that the staff does not consider Part 20, Appendix B to give limits for noble gases in water. Specifically, the footnotes addressing "nuclides not listed above" do not apply to the noble gases because the noble gases are listed.

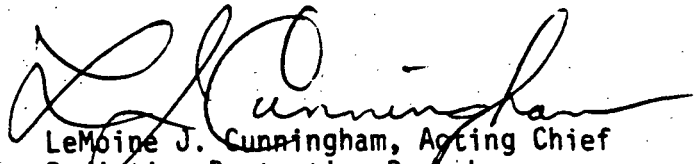
Multiple Addressees

- 2 -

JUN 12 1987

RPB also said that the technical specification limit for noble gases is independent of the concentrations of other nuclides. That is, if noble gas concentration does not exceed 200 pCi/ml and the concentrations of other nuclides do not add up to more than one MPC equivalent, the LCO is satisfied. There is no need to include the noble gases in the Part 20 summation formula.

These are NRR interpretations of long standing. Since the questions did arise again, it seems worthwhile to call them to your attention and to add the information to the "Health Physics Positions" data file.



LeMoine J. Cunningham, Acting Chief
Radiation Protection Branch
Division of Radiation Protection
and Emergency Preparedness

cc. R. Paulus
T. Martin, EDO