May 12, 2004

Air and Radiation Docket
Environmental Protection Agency
EPA West Room B108
Mail Code 6102T
1200 Pennsylvania Ave., NW.,
Washington, DC 20460

Subject: Comments on EPA's ANPR "Approaches to an Integrated Framework for Management and Disposal of Low-Activity Radioactive Waste: Request for Comment; Proposed Rule." FR 65120, Vol. 68, No. 222, November 18, 2003

Dear Sir

The Boeing Company submits the following comments in response to the EPA's ANPR, "Approaches to an Integrated Framework for Management and Disposal of Low-Activity Radioactive Waste: Request for Comment; Proposed Rule", published in the Federal Register, Vol. 68, No. 222, page 65120, on November 18, 2003,

Boeing manufactures commercial and military aircraft, helicopters, missiles, rockets, spacecraft and related components and equipment. Boeing provides products and services to customers in 145 countries. We currently employ approximately 156,000 workers at 70 facilities in 48 states.

The ANPR introduces a new regulatory term, "low-activity radioactive waste (LARW)", to represent the idea that "some radioactive wastes may contain radionuclides in small enough concentrations to allow them to be managed in ways that are fully protective of public health and the environment, but do not require all of the radiation protection measures necessary to manage higher-activity radioactive material."

Boeing believes this proposal should have several positive effects.

- It will increase the number of available disposal sites available for "low activity" wastes by allowing use of Subtitle C hazardous waste sites.

- It will solve the current inability of many states to establish viable disposal sites within their compacts.

- It proposes the establishment of a limit, above which low level radioactive waste (LLRW) should continue to be disposed off at a LLRW disposal site, but below which LARW could go to a Subtitle C hazardous waste landfill.

- It acknowledges that there is an implicit, albeit not yet well quantified threshold, at which radiation is a minimal (or perhaps zero) risk or hazard.

However, Boeing believes that there are several potential problems that will need to be addressed in any final rule.

- Table 1 is an interpretation of the current and proposed classification of wastes and disposal options. EPA's focus in the ANPR is establishing an upper limit for LARW. However, we believe that an equally important requirement is define a lower limit that continues to exclude certain materials from the definition of LARW. Currently many, regulations define limits, below which radioactive material becomes non-regulated. These limits include,

  (1) Materials from a facility that has been "released for unrestricted use" according to section §20.1402 of the Nuclear Regulatory Commission's (NRC's) 10 CFR 20 Subpart E, "Radiological Criteria for License Termination"
  (2) Materials from a facility that has been "released for unrestricted use" by meeting residual surface contamination limits specified in NRC's Regulatory Guide 1.86, "Termination of Operating Licenses for Nuclear Reactors."
  (3) Materials from a facility that has been "released for unrestricted use" by complying with requirements specified in a NRC-issued operating reactor license or radioactive material license.
  (4) Liquid or gaseous effluents containing radionuclides that comply with the requirements of the NRC's 10 CFR 20 Appendix B, Table 2.
  (5) Radionuclide discharges to sanitary sewers that comply with NRC's 10 CFR 20 Appendix B, Table 3.
  (6) Radionuclides in potential sources of drinking water supplies that comply with limits specified in the EPA's 40 CFR 141, "National Primary Drinking Water Regulations."
  (7) Airborne radionuclides that comply with limits specified in the EPA's 40 CFR 61, "National Emission Standards for Hazardous Air Pollutants – Radionuclides."

  Currently, these radioactive materials do not require any special control, handling, treatment, or disposal. These materials are not considered "radioactive waste", low-level, low-activity or otherwise. These materials do

not require disposal at radioactive waste disposal facilities or hazardous waste disposal facilities.

We are concerned that many harmless, currently unregulated materials will end up being classified as LARW. Boeing therefore recommends that a lower dose limit for LARW be chosen that encompasses, and is not inconsistent with, existing unregulated materials mentioned above.

- The proposal may intentionally co-mingle radioactive wastes with existing hazardous wastes in Subtitle C hazardous waste landfills, thereby potentially creating large volumes of mixed waste. This is counter to current waste minimization policy. We recommend a restructuring of mixed waste regulations including a redefinition of mixed waste so as to preclude the creation of additional mixed waste in the normal course of any new LARW disposal process.

- Boeing recommends that the upper limit, as well as the lower limit, for LARW be dose-based limits. These limits should not be inconsistent with the NRC's license termination rule in 10 CFR 20 Subpart E. Building demolition debris from an unregulated, unlicensed building (following license termination) should not become regulated low activity radioactive waste, because of this proposed rule. That would be an untenable situation from an owner's and a regulator's point of view.

Boeing appreciates the opportunity to comment on the EPA's ANPR. Should you have any questions on the above material, please do not hesitate to contact Cheryl Russell, Director of our Regulatory Affairs office at (703) 465-3610.

Sincerely,

Howard Wallace, CHP
The Boeing Company

Table 1. EPA Advance Notice of Proposed Rulemaking

Activity Level	Waste Definitions		Disposal Site Option	
	Current	**EPA ANPR Proposal**	**Current**	**EPA ANPR Proposal**
Increasing	High level. Spent nuclear fuel	High level. Spent nuclear fuel	Yucca Mountain	Yucca Mountain
	Transuranic	Transuranic	WIPP	WIPP
	Class C LLRW	Class C LLRW	NRC licensed or DOE LLRW disposal facility	NRC licensed or DOE LLRW disposal facility
	Class B LLRW	Class B LLRW		
	Class A LLRW	Class A LLRW		
		Undefined upper limit		**Undefined upper limit**
	Ill-defined limit		**Ill-defined limit**	
Decreasing	"Non-radioactive waste"* 1. Unimportant Quantities 2. Meets air or liquid effluent limits 3. Meets RG 1.86 surface contamination limits 4. Meets ANSI/HPS N13.12-1999 surface or volumetric limits 5. Meets license conditions for release for unrestricted use 6. Meets drinking water MCLs 7. Meets airborne NESHAPs limits 8. Meets 10CFR 20 Subpart E dose limits 9. NORM 10. TENORM that meets above limits	LARW**	No requirements or restictions	Subtitle C RCRA Hazardous Waste Facility
		Undefined lower limit		**Undefined lower limit**
		"Non-radioactive waste"*		No requirements or restrictions
NDA				

* Non-radioactive waste not explicitly defined in regulations, but implicitly includes all listed material
** Low activity radioactive waste (new classification)