Attachment A - Scientific Record Guide

Non-cancer RF exposure issues identified in Environmental Health Trust v. FCC

ET Docket No. 13-84 | Supplemental material supporting public comment

Purpose: This is a citizen-prepared guide to record evidence and methodological questions. It does not claim that the cited studies prove causation or that all reported biological effects constitute adverse health effects.

Why these sources matter to this remand

The D.C. Circuit remanded the FCC matter because the agency had not adequately explained its conclusions concerning non-cancer effects, children, long-term exposure, testing procedures, technological change, and environmental effects. The court identified several studies and record materials as examples requiring reasoned treatment. The FCC's 2026 notice now asks commenters to address study quality, replication, dosimetry, confounding, controls, dose-response, and realistic exposure conditions.

Selected record-relevant evidence

Source	What it examined	What it reported	Important limitation / FCC question
Foerster et al. (2018)	Estimated cumulative RF-EMF brain dose and memory performance in adolescents.	Reported decreased figural-memory scores associated with higher modeled brain dose in some analyses.	Authors stated the findings require confirmation in other populations. Observational design and modeled exposure cannot by themselves establish causation.
Yakymenko et al. (2015/2016)	Review of oxidative effects reported in low-intensity RF studies.	Reported a high proportion of reviewed studies showing oxidative effects.	The dissent questioned how many underlying studies directly addressed adverse human effects below FCC limits. Biological change is not automatically an adverse health outcome.
Nittby et al. (2009)	Rat blood-brain-barrier permeability after GSM-900 exposure.	Reported increased albumin extravasation in exposed rats under certain conditions.	Animal study; translation to human health and reproducibility require careful evaluation. Later reviews have described the BBB literature as mixed.
Henry Lai literature summary (2018)	Review of neurological and behavioral RF literature.	Catalogued both studies reporting behavioral/neurological effects and studies reporting no significant effects.	The dissent emphasized mixed results, including some reported improvements. Study quality and comparability vary.
BioInitiative Report (2012)	Broad compilation and interpretation of EMF/RF literature.	Argued for more protective biologically based exposure standards.	It is not itself a single peer-reviewed study and has been criticized by other expert groups. It should be weighed source-by-source,

			not treated as dispositive evidence.

Questions the Commission should answer transparently

- Which findings have been independently replicated, and which have not?
- For studies reporting biological changes, do the endpoints correspond to demonstrated adverse health effects?
- Were exposure levels below, at, or above applicable FCC limits, and was dosimetry adequately controlled?
- Did studies control for temperature, confounding factors, sham exposure, blinding, sample size, and multiple comparisons?
- Do human longitudinal data adequately address exposure beginning in childhood and continuing for decades?
- Where evidence remains inconsistent, what specific research would materially resolve the uncertainty?

Balanced interpretation

The cited materials do not establish that ordinary RF exposure below FCC limits causes a particular disease. They do establish that the administrative record contains disputed evidence and unresolved methodological questions that can be addressed through transparent, study-specific analysis rather than categorical statements of either harm or safety.

Sources and record references

1. FCC Public Notice, DA 26-997 (2026). Current remand notice and requested methodological questions. Source

2. Environmental Health Trust v. FCC, 9 F.4th 893 (D.C. Cir. 2021). Court opinion identifying the remand issues and record examples. Source

3. Foerster et al., Environmental Health Perspectives 126:077007 (2018). PMID 30044230; DOI 10.1289/EHP2427. Source

4. Yakymenko et al., Electromagnetic Biology and Medicine 35:186-202. PMID 26151230; DOI 10.3109/15368378.2015.1043557. Source

5. Nittby et al., Pathophysiology 16:103-112 (2009). PMID 19345073; DOI 10.1016/j.pathophys.2009.01.001. Source

6. COMAR technical statement discussing the BioInitiative Report. A published counterpoint useful for showing that the scientific disagreement is acknowledged rather than concealed. Source