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**MEMORANDUM**  
**OFFICE OF ENGINEERING AND TECHNOLOGY**

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

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*Manage the spectrum  
and provide technical leadership  
to create new opportunities  
for competitive technologies and services  
for the American public.  
— Mission Statement —*

**Date:** March 22, 1995

**To:** Secretary, FCC

**From:** Robert F. Cleveland, Office of Engineering & Technology

**Subject:** ET Docket 93-62  
Ex Parte Presentation by U.S. Environmental Protection Agency

Please be advised that on March 21, 1995, the U.S. Environmental Protection Agency (EPA), represented by Dennis O'Connor and Norbert Hankin, met with staff from the FCC and from the National Telecommunications and Information Administration (NTIA) regarding the EPA's efforts to develop exposure recommendations for radiofrequency electromagnetic fields. Attending this meeting from the FCC were: Robert Bromery, Robert Cleveland, Bruce Franca, Stevenson Kaminer, Thomas Stanley, David Sylvar and Jerry Ulcek. NTIA was represented by Janet Healer. During this meeting EPA staff briefed the participants on the EPA's activities and its schedule related to the development of these recommendations. The attached documents were provided to FCC and NTIA staff by the EPA, and they summarize the topics discussed at the meeting.

Please place this memorandum and the attachments into the record of the above-referenced proceeding.

ATTACHMENTS (9)

0562

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# **DEVELOPMENT OF RF RADIATION EXPOSURE GUIDELINES**

**BRIEFING FOR THE  
FEDERAL COMMUNICATIONS COMMISSION**

**OFFICE OF RADIATION AND INDOOR AIR  
U.S. ENVIRONMENTAL PROTECTION AGENCY**

**March 21, 1995**

## **BACKGROUND**

- 1986, July "Federal Radiation Protection Guidance; Proposed Alternatives for Controlling Public Exposure to Radiofrequency Radiation; Notice of Proposed Recommendations"
- 1992, Jan. SAB report - recommended that Guidance be completed
- 1993, Apr. RF Radiation Conference
- 1993, Nov. Comments to the Federal Communications Commission
- 1994, April EMF strategy adopted

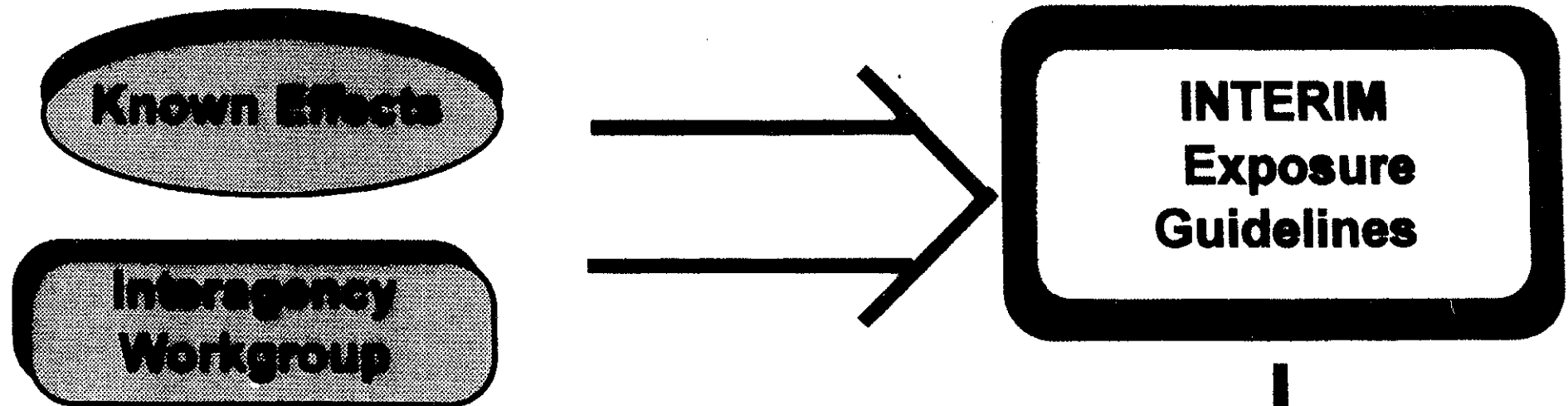
# RF RADIATION CONFERENCE

## MAJOR CONCLUSIONS

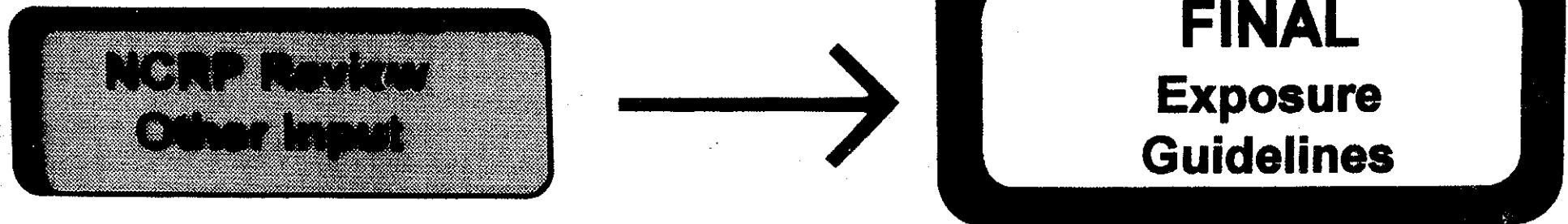
- ◆ **EPA guidelines needed**
- ◆ **Sufficient information -      heat/temperature related effects**
- ◆ **Insufficient information:      nonthermal exposures**  
**modulation**

# RF STRATEGY

## PHASE 1 (Health Effects)



## PHASE 2 (Modulation)



# Hybrid Approach to Exposure Limits

## ◆ Phase 1: Interim RF Radiation Exposure Guidelines

- Based upon **EPA comments to the FCC**
- Combines best features of **NCRP, ANSI/IEEE, IRPA, ...** guidelines
- Builds upon **existing** health effects research
- **Simple, less controversial**

**no need for:**     risk estimates  
                         impact analysis

- **Does not include** modulation, chronic exposure, nonthermal effects

# Modulated and Nonthermal Exposures

## ◆ Phase 2: Modulation

- **NCRP Commentary (two years)**

- **Current situation**

**insufficient data  
developing issue**

- **Approach**

**NCRP Commentary  
focus on exposure limits  
convenes National experts**

- **Commentary**

**Addresses important/controversial issues  
basis for Background Information Document**

- **Input from ongoing research**

**SAG - wireless communications**

# PROCESS

- ◆ Convene **workgroup**

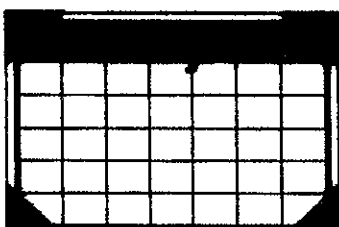
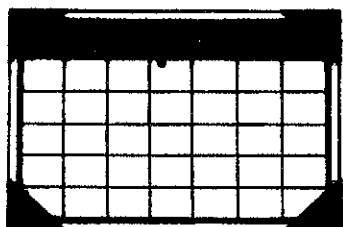
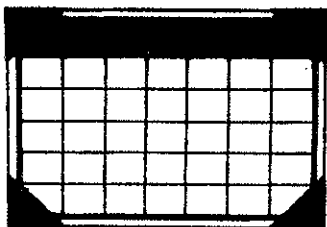
Federal Agency: EPA, FDA, NIOSH, OSHA, FCC, NTIA

- ◆ Preparation of **Draft Guidelines documents**

- ◆ Reviews and Revisions

- ◆ **Guidelines Report**





## **Review Process**

**RF  
Workgroup**

**Industry  
and  
Federal  
Agency**

**OMB**

**Draft RF  
Guidance**

**Issue Interim  
RF  
Guidance**

## **NEXT STEPS**

- **Implement review process**
- **Draft report revisions**
- **Incorporate comments**