Approved by the Executive Director C1
March 19, 2009

FOR ACTION

SUBJECT: To Reappoint Mr. Douglas Kaya and Mr. Moses S. Lum Hoy to the Oahu Eviction Board for a Two-Year Term Expiring on March 31, 2011

I. FACTS

A. The Oahu Eviction Board, composed of members of the community, is responsible for affording public housing tenants a full and fair hearing during lease termination proceedings.

B. Pursuant to Chapter 356D, Hawaii Revised Statutes, the Hawaii Public Housing Authority ("Authority") is authorized to appoint an eviction board in each county to hear cases referred for eviction. The Eviction Board has an authorized composition of at least three members, one of which must be a resident of public housing. A quorum of board members must be present to act upon and resolve lease termination cases.

C. Mr. Douglas Kaya is a resident of Oahu. He is a Speech professor at Leeward Community College, teaching courses in speech, communication and intercultural communication, which include problem solving and conflict management. He also serves as a volunteer mediator for the Mediation Center of the Pacific. Mr. Kaya currently serves as a Board member and has expressed a willingness to serve as a member of the Oahu Eviction Board for an additional two-year term.

D. Mr. Moses Lum Hoy is a resident of Oahu. He was previously employed in the City and County's Budget Department as the Chief Fiscal Analyst and was also the City Council Budget Committee's Chief Legislative Analyst. He has assisted our legislators as the committee clerk for the Agriculture Committee and the Human Services and Housing Committee. Currently, Mr. Lum Hoy is with the Committee on Transportation. Even after retiring, Mr. Lum Hoy has continued to actively volunteer in our community, currently serves as a Board member and has expressed a willingness to continue his service as a member of the Oahu Eviction Board for an additional two-year term.

E. Mr. Kaya and Mr. Lum Hoy have been members of the Oahu Eviction Board since March of 2005. Their consistent dedication as members of the eviction board has allowed the Hearings Office to process requests for hearing in a timely and efficient manner.

II. RECOMMENDATION

That Mr. Douglas Kaya and Mr. Moses Lum Hoy be reappointed to the Oahu Eviction Board for a Two-Year Term Expiring on March 31, 2011.

Prepared by: Renee Blondin-Nip, Hearings Officer

OAHU EVICTION BOARD

	Term Expiration Date
Ms. Radiant Chase	7-31-2009
Mr. Darren Gionson*	1-31-2010
Mr. Douglas Kaya**	3-31-2009
Mr. Moses Lum-Hoy**	3-31-2009

*Resident Member

**Requesting reappointment.

MOSES LUM HOY
1327 15TH Avenue
Honolulu, Hawaii 96816-3841
PH: 256-1651

Experience and Skills:

- Retired from City & County of Honolulu (approximately 51 years including service bonus and sick leave accumulation)
  (30 years – Budget Department, Chief Fiscal Analyst, responsible for City's revenues projection and funding of Capital Improvement Projects; 15.5 years – City Council, Chief Legislative Analyst for the City Council's Budget Committee, chaired by: Matsumoto, Iwase, Bornhorst, Mansho, Doo)

- Hawaii State Legislature:
  Rep. Merwyn Jones, Agriculture Committee, Committee Clerk, 1997-1998
  Rep. June Abinsay, Agriculture Committee, Committee Clerk, 1999-2000
  Rep. Michael Kahikina, Human Services and Housing Committee, Committee Clerk, 2001-2004
  Rep. Joseph Souki, Transportation Committee, Committee Clerk, 2007-Present

- 55 years in volunteer credit union services:
  Supervisory and Credit Committee member and 40 years as a member of the board at Honolulu City and County Employees Federal Credit Union;
  10 years as Credit Committee member and 24 years as member of the board at Hawaii Central Credit Union; 6 years member of the Board, including Chairman at Hawaii Credit Union League and member of its Government Affairs Committee for 20 years

- Member of the board of Directors of the Employees Association of the City and County of Honolulu from 1972–1994, and member of the board of Directors of the Hawaii Government Employees Association from 1969-1972

- Own a two acre parcel with a two story home in Keanae, Maui, that is rented to a low income family – couple, son, daughter and grandson

- Own a home in Peccole Ranch Community, Summerlin, Las Vegas, Nevada – being rented out

- From 1957-1968 - Partner in Hui Elima Apartments, 24 units on a one-half acre property at 720-724 Kamoku Street, Honolulu, Hawaii

Other:

After the end of each legislative session, I did volunteer work for the Agriculture Committee and Human Services and Housing Committee. On several occasions, I volunteered to help serve lunch or dinner at the Institute of Human Services.

Currently, I am employed as a Committee Clerk for Representative Joseph Souki, Transportation Committee, Hawaii State Legislature.

I have been a member of the Oahu Eviction Board since March of 2005, and I am willing and able to continue my service. It is an honor to serve the public in anyway I can. Thank you for your consideration.

DOUGLAS KAYA
98-1770 Kaahumanu Street, #D
Pearl City, Hawaii 96782
PH: 341-8628

Current Position and Employer, 1972 to Present:

Professor in Speech
Leeward Community College
96-045 Ala Ike
Pearl City, Hawaii 96782

Elected faculty positions held:

Coordinator, Creative Arts Sub-Program of the Recreational Instructor Program
Chair, Leeward Community College Faculty Senate
Chair, Arts and Humanities Division
Chair, Language Arts Division

Selected Public Service Work:

President, Hawaii Parks & Recreation Association, 1974-1976
President, Very Special Arts Hawaii, 1982-1984
Board Secretary, Hawaii Theatre Council, 1987-1989
Board Member, State Board of Speech Pathology & Audiology, 1992-1994
Board Member, State Foundation on Culture & Arts, 1996-1999
Board Member, Oahu Eviction Board, 2005-Present
Mediator, Mediation Center of the Pacific, 2006-Present

Education:

Post-Masters Study, University of Washington (Seattle, Washington) 1964-1967
Master of Fine Arts Degree, University of Hawaii, 1964
Bachelor of Arts Degree, University of Hawaii, 1961

As a professor in Speech at Leeward Community College, I teach courses in speech and communication, which includes units in problem solving in groups and conflict management, therefore, I have a strong understanding of hearing and mediating conflicts.

I continue to have a fairly flexible work/school schedule, therefore, I am willing and able to continue my service as member of the Oahu Eviction Board.

Approved by the Executive Director___
March 19, 2009

FOR ACTION

SUBJECT: To Appoint of Mr. Hugh Haupu to the Maui Eviction Board for a Two-Year Term Expiring on March 31, 2011

I. FACTS

A. The Maui Eviction Board, composed of members of the community, is responsible for affording public housing tenants a full and fair hearing during lease termination proceedings.

B. Pursuant to Chapter 356D, Hawaii Revised Statutes, the Hawaii Public Housing Authority ("Authority") is authorized to appoint an eviction board in each county to hear cases referred for eviction. The Eviction Board has an authorized composition of at least three members, one of which must be a resident of public housing.

C. Having more than the minimum amount of members appointed to the Maui Eviction Board will allow the Hearings Office to process the requests for hearing in an efficient and timely manner, and avoid cancellation of hearings for lack of quorum.

D. Mr. Hugh Haupu has been a tenant at Makani Kai Hale since September 2008 and is in compliance with the provisions of HPHA's Rental Agreement and Project Rules. Mr. Haupu has expressed a desire to "give back" to the community and is extremely grateful for the opportunity to live at Makani Kai Hale. Mr. Haupu not only takes care of his unit and the area surrounding it, but also his handicapped neighbor's unit, the common areas and parking lot. He has shown great intiative in the re-organization of Makani Kai Hale's Resident Association and also submitted a request to organize activities for the children residing at Makani Kai Hale.

E. Mr. Haupu is committed to serving the community needs and has indicated his desire to be involved in assisting with the eviction process. His insight as a resident would be beneficial to providing a fair hearing. Mr. Haupu has expressed a willingness to be appointed to serve as a board member for a two year term. Management supports the appointment of Mr. Haupu to the Maui Eviction Board.

II. RECOMMENDATION

A. Appointment of Mr. Hugh Haupu to the Maui Eviction Board for a two-year term expiring on March 31, 2011.

Prepared by: Renee Blondin-Nip, Hearings Officer

MAUI EVICTION BOARD
HAWAII PUBLIC HOUSING AUTHORITY
STATE OF HAWAII

	Reappointment Date	Expiration Date
Thelma Akita Kealoha	08-21-2008	08-31-2010
Mark Nishino	08-16-2007	08-31-2009
Mr. Robert G. Hill	03-01-2008	02-28-2010
Resident Member**		

**Currently vacant. Requesting appointment.

'09 JAN 28 A9:58

1/23/09

TO WHOM IT MAY CONCERN: RECEIVED HAWAII PUBLIC

MY NAME IS HUGH B HAUPU AND AM A RESIDENT AT MAKANI KAI HALE-55 KOA PAKA LANE WAILUKU, HI 96793
THIS IS A WRITTEN RESUME THAT WAS REQUESTED BY YOU.

FR: AUG 2007 TIL NOW IVE BEEN OUT OF WORK. DISABLE.

'09 FEB 12 A10:33 RECEIVED HAWAII PUBLIC HOUSING AUTHORITY

FROM: SEPT 2005 WORKED AT SECURITAS SERVICES AS A FIELD SUPERVISOR.

FROM: FEB 2002 - NOV 2004
WORKED AS A SITE SUPERVISOR AT THE MAUI PINEAPPLE CO: EMPLOYED BY A.K.A.L. SECURITY SERVICES.

BEFORE THAT I WAS EMPLOYED BY GOOD YEAR TIRE SERVICE. NOT SURE ON THE DATES BUT WORKED THERE LITTLE OVER A YEAR.

THANK YOU VERY MUCH FOR ALLOWING ME TO BE ABLE TO GIVE BACK TO OUR COMMUNITY BY PLACING ME ON YOUR BOARD. I AM HONORED.

THANK YOU

Hugh B Haupu

60.

Approved by the Executive Director CT
March 19, 2009

FOR ACTION

SUBJECT: To Accept the Financial Statements and Report of Independent Public Accountants (Office of Management and Budget (OMB) Circular A-133) Single Audit for the Fiscal Year Ending June 30, 2008.

I. FACTS

A. The Single Audit of the Hawaii Public Housing Authority for the fiscal year ending June 30, 2008 has been completed by independent auditors KMH LLP. The Single Audit consists of five parts. The Board of Directors (Board) accepted part I, the Financial Statements portion of the report at the February 19, 2009 Board Meeting. Parts II – V, attached need Board approval.

1. Part II- internal control findings over financial reporting process
2. Part III- HPHA compliance over "major" federal programs. There are two qualifications (non compliance), see page 90. The second half of this report addresses internal control findings over compliance with federal programs.
3. Part IV - Findings and management's corrective action plans.
4. Part V- is the status of prior year comments

B. After Board approval the Single Audit will be submitted to the Federal Clearinghouse by March 31, 2009 (by KMH LLP).

C. Unaudited Financial Data Schedule (FDS) will be submitted to HUD Real Estate Assessment Center by April 13, 2009 (by HPHA Fiscal Management Office staff, trained and assisted by MD Strum and subcontractor Rector, Lindsay & Reeder, PC).

D. Audited Financial Data Schedule will be submitted to HUD Real Estate Assessment Center by date to be determined by HUD. Upon approval of the Audited FDS, copies of the submission and related reports will be provided to the Board for information.

II. RECOMMENDATION

The Hawaii Public Housing Authority Board of Directors accept the Financial Statements and Report of Independent Public Accountants (Office of Management and Budget (OMB) Circular A-133) Single Audit for the Fiscal Year Ending June 30, 2008.

Prepared by: Gary Marushige, Chief Financial Management Advisor GM

PART II

INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With *Government Auditing Standards*

Board of Directors
Hawaii Public Housing Authority

We have audited the financial statements of the Hawaii Public Housing Authority (the Authority), as of and for the fiscal year ended as of and for the year ended June 30, 2008, and have issued our report thereon dated March __, 2008. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States of America.

Internal Control Over Financial Reporting

In planning and performing our audit, we considered the Hawaii Public Housing Authority's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Hawaii Public Housing Authority's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the Hawaii Public Housing Authority's internal control over financial reporting.

Our consideration of internal control over financial reporting was for the limited purpose described in the preceding paragraph and would not necessarily identify all deficiencies in internal control over financial reporting that might be significant deficiencies or material weaknesses. However, as discussed below, we identified certain deficiencies in internal control over financial reporting that we consider to be significant deficiencies.

A control deficiency exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis. A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the entity's ability to initiate, authorize, record, process, or report financial data reliably in accordance with generally accepted accounting principles such that there is more than a remote likelihood that a misstatement of the entity's financial statements that is more than inconsequential, will not be prevented or detected by the entity's internal control. We consider the deficiencies described in the accompanying Schedule of Findings and Questioned Costs, items 2008-01 through 2008-03, 2008-05 and 2008-08, to be significant deficiencies in internal control over financial reporting.

A material weakness is a significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the financial statements will not be prevented or detected by the entity's internal control.

Our consideration of the internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in the internal control that might be significant deficiencies and, accordingly, would not necessarily disclose all significant deficiencies that are also considered to be material weaknesses. However, of the significant deficiencies described above, we consider items 2008-01 through 2008-03, 2008-05 and 2008-08 to be material weaknesses.

We also noted other matters involving the internal control over financial reporting, which we have reported to management of the Hawaii Public Housing Authority, in a separate letter dated March __, 2008.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Hawaii Public Housing Authority's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, including applicable provisions of the Hawaii Public Procurement Code (Chapter 103D of the Hawaii Revised Statutes) and procurement rules, directives and circulars, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards* and which are described in the accompanying schedule of findings and response as items 2008-04 through 2008-10.

We noted certain matters that we reported to management of the Hawaii Public Housing Authority in a separate letter dated March ___, 2008.

Authority's responses to the findings identified in our audit are described in the accompanying Schedule of Findings and Questions Costs. We did not audit Authority's response and, accordingly, we express no opinion on it.

This report is intended solely for the information and use of the Board of Directors and management of the Hawaii Public Housing Authority, and federal awarding agencies and pass-through entities and is not intended to be and should not be used by anyone other than these specified parties.

KMH LLP

Honolulu, Hawaii
March __, 2008

PART III

INDEPENDENT AUDITOR'S REPORT ON COMPLIANCE WITH REQUIREMENTS APPLICABLE TO EACH MAJOR PROGRAM AND ON INTERNAL CONTROL OVER COMPLIANCE IN ACCORDANCE WITH OMB CIRCULAR A-133

Independent Auditor's Report on Compliance With Requirements Applicable to Each Major Program and on Internal Control Over Compliance in Accordance With OMB Circular A-133

Board of Directors
Hawaii Public Housing Authority

Compliance

We have audited the compliance of the Hawaii Public Housing Authority (the Authority) with the types of compliance requirements described in the U.S. Office of Management and Budget (OMB) Circular A-133 *Compliance Supplement* that are applicable to each of its major federal programs for the year ended June 30, 2008. The Hawaii Public Housing Authority's major federal programs are identified in the summary of auditor's results section of the accompanying Schedule of Findings and Questioned Costs. Compliance with the requirements of laws, regulations, contracts, and grants applicable to each of its major federal programs is the responsibility of the Hawaii Public Housing Authority's management. Our responsibility is to express an opinion on the Hawaii Public Housing Authority's compliance based on our audit.

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*. Those standards and OMB Circular A-133 require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the Hawaii Public Housing Authority's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion. Our audit does not provide a legal determination of the Hawaii Public Housing Authority's compliance with those requirements.

As described in items 2008-06 in the accompanying Schedule of Findings and Questioned Costs, the Hawaii Public Housing Authority did not comply with requirements regarding reporting that is applicable to its Public Housing Capital Fund program. Compliance with such requirements is necessary, in our opinion, for the Hawaii Public Housing Authority to comply with requirements applicable to that program.

As described in items 2008-07 in the accompanying Schedule of Findings and Questioned Costs, the Hawaii Public Housing Authority did not comply with requirements regarding special tests and provisions

that are applicable to its Public and Indian Housing program. Compliance with such requirements is necessary, in our opinion, for the Hawaii Public Housing Authority to comply with requirements applicable to that program.

In our opinion, except for the noncompliance described in the preceding paragraph, the Hawaii Public Housing Authority complied, in all material respects, with the requirements referred to above that are applicable to each of its major federal programs for the year ended June 30, 2008.

Internal Control Over Compliance

The management of the Hawaii Public Housing Authority is responsible for establishing and maintaining effective internal control over compliance with the requirements of laws, regulations, contracts, and grants applicable to federal programs. In planning and performing our audit, we considered the Hawaii Public Housing Authority's internal control over compliance with requirements that could have a direct and material effect on a major federal program in order to determine our auditing procedures for the purpose of expressing our opinion on compliance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the Hawaii Public Housing Authority's internal control over compliance.

Our consideration of internal control over compliance was for the limited purpose described in the preceding paragraph and would not necessarily identify all deficiencies in the entity's internal control that might be significant deficiencies or material weaknesses as defined below. However, as discussed below, we identified certain deficiencies in internal control over compliance that we consider to be significant deficiencies and others that we consider to be material weaknesses.

A *control deficiency* in an entity's internal control over compliance exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect noncompliance with a type of compliance requirement of a federal program on a timely basis. A *significant deficiency* is a control deficiency, or combination of control deficiencies, that adversely affects the entity's ability to administer a federal program such that there is more than a remote likelihood that noncompliance with a type of compliance requirement of a federal program that is more than inconsequential will not be prevented or detected by the entity's internal control. We consider the deficiencies in internal control over compliance described in the accompanying Schedule of Findings and Questioned Costs as items 2008-04 through 2008-08 and 2008-10 to be significant deficiencies.

A material weakness is a significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that material noncompliance with a type of compliance requirement of a federal program will not be prevented or detected by the entity's internal control. Of the significant deficiencies in internal control over compliance described in the accompanying Schedule of Findings and Questioned Costs, we consider items 2008-04 through 2008-08 and 2008-10 to be material weaknesses.

The Hawaii Public Housing Authority's responses to the findings identified in our audit are described in the accompanying Schedule of Findings and Questioned Costs. We did not audit the Hawaii Public Housing Authority's response and, accordingly, we express no opinion on it.

The Authority's responses to the findings identified in our audit are described in the Response by Affected Agency section. We did not audit Authority's response and, accordingly, we express no opinion on it.

This report is intended solely for the information and use of management and federal awarding agencies and pass-through entities and is not intended to be and should not be used by anyone other than those specified parties.

KMH LLP

Honolulu, Hawaii
March __, 2008

PART IV

SCHEDULE OF FINDINGS AND QUESTIONED COSTS

Hawaii Public Housing Authority

Schedule of Findings and Questioned Costs
Year Ended June 30, 2008

Section I – Summary of Auditor's Results:

Financial Statements

Type of auditors' report issued: Unqualified.

Internal control over financial reporting:

- Material weakness(es) identified? √ Yes __None reported
- Significant deficiency(ies) identified that are not considered to be material weaknesses? __ Yes √ None reported

Noncompliance material to financial statements noted? __Yes √ No

Federal Awards

Internal control over major programs:

- Material weakness(es) identified? √ Yes __ No
- Significant deficiency(ies) identified that are not considered to be material weakness(es)? __ Yes √ None reported

Type of auditor's report issued on compliance for major programs: Qualified.

Any audit findings disclosed that are required to be reported in accordance with section 510(a) of Circular A-133? √ Yes __ No

Identification of major programs:

CFDA Number(s)	Name of Federal Program
14.871	Section 8 Housing Choice Vouchers Program
14.872	Public Housing Capital Fund
14.850	Public and Indian Housing

Dollar threshold used to distinguish between type A and type B programs: $2,244,297 (3% of federal award expended)

Auditee qualified as low-risk auditee? __ Yes √ No

Hawaii Public Housing Authority

Schedule of Findings and Questioned Costs
Year Ended June 30, 2008

Hawaii Public Housing Authority

Schedule of Findings and Questioned Costs (continued)
Year Ended June 30, 2008

Section II – Financial Statement Findings

Finding No.: 2008-01 Financial Management Deficiencies - Material Weakness

The lack of appropriate management leadership and shortage of adequate staffing in the Fiscal Management Office has continued to significantly impact HPHA's ability to perform its core accounting functions. Many of the issues and conditions noted in the current year were originated from prior year.

Condition & cause: Although HPHA subsequently hired a Chief Accountant in July 2007 and external financial consultants to assist with the Fiscal Management Office functions, accounting personnel did not have proper oversight and supervision during most of the fiscal year, including appropriate reviews and approval of transactions. Consequently, numerous routine accounting functions were not being performed. This lack of dedicated leadership and overall management of its accounting and financial reporting function during the 2008 fiscal year has limited the effectiveness of HPHA's ability to record and report accurate and timely financial information. Some of conditions noted includes but not limited to the following.

- Monthly general ledgers were not prepared
- Monthly reconciliations of all account balances were not performed
- Accruals incorrectly recorded or not recorded at all
- Certain revenues and expense items were recorded on a cash basis
- Journal entries were recorded incorrectly
- Expenses were not allocated on a timely basis
- Unrecorded obligations, including various payables and litigation settlement
- Depreciation expense not recorded
- Transfer of assets not properly accounted for between funds

Context: The lack of proper training continues to be a significant shortcoming of the HPHA. This is evident in the lack of understanding and use of the "emPHAsys" computer system, the application of generally accepted governmental accounting standards, various State of Hawaii generated reports from the Department of Accounting and General Services and in HUD's reporting requirements. The shortage of training, in combination with the lack of clearly documented policies and procedures and the presence of shortage of staffing, has limited the effectiveness of the HPHA's internal control environment and procedures. Additionally, HUD's reporting requirements, including but not limited to "project-based" accounting, the Real Estate Assessment Center electronic submission filing requirements and asset-management accounting further accentuates the need for proper training and supervision. The lack of proper oversight and supervision is a fundamental deficiency in the organization's internal control environment.

Section II – Financial Statement Findings (continued)

Finding No.: 2008-01 Financial Management Deficiencies - Material Weakness (continued)

Questioned costs: None

Effect: Failure to provide adequate oversight and supervision and the performance of key accounting and internal controls functions can lead to misstatement of financial results and non-compliance.

Recommendation: HPHA needs to assess its current policies and procedures to ensure that internal controls over key accounting, financial reporting and budgeting processes are established and adhered to. Specifically:

1. We recommend that the Chief Financial Officer and Chief Accountant perform an assessment of current processes to:

   - Gain an understanding of each program's objectives and type of major transaction. Perform interviews with the various branch chiefs, program managers, and with compliance officer.

   - Interview each accountant to determine their functions and what financial information is currently prepared and maintained.

   - Perform a gap analysis between the current conditions and desired conditions.

   - Prepare and implement recommendations.

   - Identify any missing key internal controls, including but not limited to the following:

     - Review and approvals of monthly bank reconciliations,
     - Perform month end reconciliation to detail supporting documents. E.g. Review and approval of month-end accruals.
     - Recording of routine transaction: expense allocation, monthly review of CIP transfers, month end accruals.

   - Consider developing a month end closing checklist to ensure that accurate financial information is prepared timely. The month end checklist should be tailored to the specific requirements of each fund. For example: Federal low rent- checklist would include procedures specific to capital improvements.

Section II – Financial Statement Findings (continued)

Finding No.: 2008-01 Financial Management Deficiencies - Material Weakness (continued)

- Monitor control systems to ensure effectiveness. Timely review and approvals by appropriate personnel.

- As a majority of the agency's funding are HUD subsidies, need to establish and maintain controls over operating and capital improvement budgets.

2. The HPHA should continue its efforts in seeking to hire a Chief Financial Officer. In addition, the agencies should evaluate the need to hire on a temporary basis experienced personnel to provide the appropriate oversight and supervision over the accounting and reporting functions.

PHA Reply (Corrective Action Plan):

1. Program Assessment:

a. Fiscal Management Office (FMO) has interviewed Section 8 branch chief and Homeless branch chief. FMO plans to interview the Property Branch, AMP managers, Contracts and procurement, Construction Management Services, and other branches.

b. MD Strum performed an assessment of the Fiscal Management Office staff and job functions. Process maps were developed for most of the positions and a draft Policy and Procedure Manual was created. Upon joining HPHA, the CFMA conducted interviews with all accountants to review their functions and assess their skill levels. The Fiscal Officer has been evaluating the weaknesses of the present financial procedures during the course of completing the FY2008 Audit.

c. FMO is working on the gap analysis for internal controls, timely reconciliation, single/central recording of journal vouchers, timeliness of payments, and other functions of the FMO. FMO has performed the gap analyses for staff and identified areas in need of improvement. HPHA will be formally documenting these weak areas and will develop a timetable to work with the appropriate staff members to improve the job processes and internal financial control weaknesses. MD Strum will assist in this effort with the extension of their contract until June 30, 2009.

d. FMO will prepare and implement recommendations for improvement.

e. FMO will identify missing internal controls (see c, above).

f. FMO will develop month end closing checklists tailored for each fund.

g. FMO will monitor control systems by timely review and approvals by staff.

h. FMO is developing controls over operating and capital improvement budgets.

Section II – Financial Statement Findings (continued)

HPHA has had special meetings with the Honolulu HUD office to discuss HPHA needs and requests. The local office has generously offered assistance regarding increasing HPHA's understanding of Federal programs and requirements. HPHA has also met with the Department of Human Services (DHS) Fiscal Office management team to discuss possible ways they could assist HPHA in further training regarding State of Hawaii financial procedures.

2. Leadership. The Hawaii Public Housing Authority (HPHA) unsuccessfully sought to hire a Chief Financial Officer (CFO) level manager for over a year. Through the efforts of the Department of Housing and Urban Development (HUD), the firm of MD Strum was engaged to work with the HPHA staff to manage the Fiscal Management Office from July 2008 to December 2008. The Chief Financial Management Advisor (CFMA, functions as CFO) was hired effective October 1, 2008. The Fiscal Officer was hired effective October 10, 2008. HPHA hired a Budget Analyst in November 2008. He will be permanently assigned to the Fiscal Management Office effective March 2009. This position will be responsible for monitoring the HPHA operating budget and CIP budgets. All these key hires occurred after the 2008 fiscal year ended on June 30, 2008.

Contact Person: Gary Marushige, Chief Financial Management Adviser

Target Completion Date: June 30, 2009

Finding No.: 2008-02 No General Ledger and Non-reconciliations of General Ledger Accounts-Material Weakness

Criteria: Sound internal control procedures and Federal regulations require that the books and records of account should be maintained on a regular monthly basis for all programs.

Condition, cause & context: During the prior year, HPHA had installed the ""emPHAsys"" general ledger system software to provide HPHA with a general ledger system that would also be able to address HUD's new reporting requirements. However, the general ledger system continues to have very limited use. The lack of understanding of the "emPHAsys" computer system and appropriate accounting oversight and supervision has resulted in monthly general ledgers not being prepared during the fiscal year. Consequently, the key internal control activity of routine monthly reconciliations of the general ledger accounts balances to the corresponding transaction or activity details was not performed during the year.

Section II – Financial Statement Findings (continued)

Without "reliable" and "timely" financial information, management decisions related to operations may be compromised. The following is a list of issues noted during the audit as a result of the lack of the general ledger and respective account reconciliations:

- Lack of financial statements
- Lack of information to perform budget to actual comparisons to determine if the HPHA has sufficient funds to adequately cover operations. Additionally, the lack of budgetary control could result in the HPHA operating with deficits
- Lack of information to perform monthly cost analysis by Management Unit (MU) level to identify the causes of any overruns

The lack of a functioning general ledger system and related account reconciliations is a fundamental deficiency in the organization's internal control environment.

Questioned costs: None

Effect: Failure to adequately record all related financial activities on a timely basis can lead to misstatement of financial results and non-compliance.

Recommendation: HPHA's policy is to post approved journal vouchers to the general ledger and to perform monthly reconciliations for respective accounts. To ensure the accuracy and completeness of the HPHA's financial information, we recommend that management provide training in the full use of its general ledger system and comply with its policy to post journal vouchers to the general ledger and perform account reconciliations in a timely manner.

PHA Reply (Corrective Action Plan):

At present the general ledger is in full use and financial transactions (checks, deposits, journal vouchers) are being recorded in the Emphasys system. With the addition of the Chief Financial Management Advisor and Fiscal Officer, financial statements were first produced for the November 2008 Board meeting and

Section II – Financial Statement Findings (continued)

budget to actual reports have been produced on a monthly basis thereafter. Financial reports by Asset Management Project (AMP) are now being generated monthly and distributed to the AMPs through folders in the Agency's shared intranet drive.

A two week retraining on the Emphasys system for the FMO staff was conducted in November 2008 with the trainer brought on site to provide personal one-on-one training. FMO staff are also presently being trained weekly on web-based training to review specific training issues on a regular schedule for a total of 100 hours over the next several months.

Remote Emphasys accounting training was provided to FMO staff during the month of February, as indicated below. Training is scheduled to resume again in April (April 7 and 14). The Fiscal Officer will choose the topic and determine which staff should attend training as applicable. Emphasys will train HPHA on any topic that we need help with. The hours are coming out of our current contract's bank of 100 training hours, but may not all be used for FMO. After the April sessions, we will reassess how much more training the FMO staff is going to need.

Emphasys Remote Training Sessions for FMO Staff:

2/3/09 – **Rent Runs**
2/10/09 – **Bank Reconciliation**
2/17/09 – **Section 8**
2/24/09 – **GL Budget**

With the recent completion of the FY2008 Audit, HPHA will begin to reconcile the key balance sheet accounts and analyze the monthly fund activities. Checklists and monitoring procedures to insure compliance with policies and procedures will be developed.

Contact Person: Gary Marushige, Chief Financial Management Advisor

Target Completion Date: June 30, 2009

Section II – Financial Statement Findings (continued)

Finding No.: 2008-03 Lack of Clear Policies and Procedures - Material Weakness

Criteria: Sound internal control procedures require that policies and procedures should be in place and operating effectively.

Condition, cause, and context: Our review of internal controls revealed that the accounting and budgets departments do not maintain updated formal policies and procedures manuals or documents related to key internal control functions or activities. For example, HPHA does not maintain documented policies and procedures related to cash reconciliations, tenant accounts receivable reconciliations, general accounts payable processing, HPHA'S reporting, Capital Fund monitoring, or financial reporting procedures, including REAC's electronic submission filing.

Effect: The lack of clearly documented updated policies and procedures limits the effectiveness of the HPHA internal control environment and procedures and may result in additional costs expended by HPHA. This is especially true in situations where personnel are new to a position and performing certain functions for the first time. An example of such a situation was the hiring of an outside consultant to complete HPHA's REAC electronic submission filing.

Recommendation: HPHA should assess its current internal control polices and procedures related to key accounting and budgeting processes. Upon the completion of such assessment, a formal policies and procedures manual for all key accounting and budgeting functions. Any material changes to existing policies should be approved via resolution by the Board of Commissioners.

PHA Reply (Corrective Action Plan):

During the finalizing of the FY2008 Audit, several internal control weaknesses surfaced. It was also evident that due to the lack of written polices and procedures, the staff were inconsistent in their accounting processes. As mentioned previously, HUD retained MD Strum to review the present finance operations and to revise the procedures to correct control deficiencies. A draft Policy and Procedures Manual was written and distributed to the staff. MD Strum is presently finalizing the draft version. In addition, HPHA received an abbreviated set of policies and procedures from the Emphasys trainer during the training in November 2008.

Section III – Federal Award Findings and Questioned Costs

In conjunction with the finalization of the policies and procedures manual, the FMO management team will begin individual training of the Accounting staff in the areas noted above. Staff will be tested on their understanding and adherence to the policy and procedure manual and make modifications if needed. The training of each staff member will be documented and recorded in the files. Any material changes to existing policies will be presented for approval via resolution by the Board of Directors.

Contact Person: Gary Marushige, Chief Financial Management Advosor

Target Completion Date: June 30, 2009

Section 8 Housing Choice Vouchers Program CFDA No. 14.871

Finding No.: 2008-04 Special Tests and Provisions - Waiting List – Material Weakness

Criteria: 24 CFR sections 5.410, 982.54(d) and 982.201 through 982.207 require the HPHA to establish policies for verification and documentation of information relevant to acceptance or rejection of an applicant.

Condition, cause, and context: Due to the limited number of housing vouchers, the HPHA's policy for placing applicants into the program is based upon preference criteria. Applicants on the waiting list who met these preference criteria, with the proper documentation and verification, were admitted to the program.

During our inquiry of HPHA's controls over the waiting list policy, we were informed by management that there is no quality review performed over the input of initial application information into the waiting list system. The lack of such a review led to findings such as applicants' applications mistakenly not being inputted or improperly being placed on the waiting list. During our review of the waiting list, it was noted that applicants were manually written into the waiting list because their applications were mistakenly overlooked or inputted incorrectly. These mistakes were not corrected until the applicant followed up on the application. Also, we were informed by management that changes to the waiting list are not monitored.

In addition we noted that one applicant was not properly listed on the master waiting list based on his initial application. Management noted that the applicant was improperly placed on the waiting list due to

Section III – Federal Award Findings and Questioned Costs (continued)

an input error, which was subsequently corrected when the applicant contacted HPHA to follow up on his application.

Effect: Failure to adequately monitor the waiting list may result in non-compliance with program requirements.

Questioned costs: None

Recommendation: We recommend that the HPHA implement a quality review over input into the waiting list system.

PHA Reply (Corrective Action Plan): The Section 8 Housing Choice Voucher (HCV) program application taking process and waiting list has been closed since July 2006. Should the wait list be reopened for application taking and processing, the applicant's household information must be inputted into HPHA's software database to ensure that the applicant's household information and application date and time appears on the master wait list. The Branch will test the data input once all application data are entered into the database. To ensure that the applicant's data resides on the master wait list, the Branch will audit fifty (50) files to determine the accuracy of the inputted data. The single audit of 40 files produced one (1) data input error in which a preference was not entered as declared by the applicant. Deficiencies will be addressed and the Branch will audit additional files in increments of ten (10) until the Branch is assured that the input data is correct. The wait list will be re-sequenced after the Manager is assured that the input data is correct. The wait list will be audited through its normal quality review of new participants to the program. The Branch's quality review procedure is to review 10% of all new participants to the HCV to ensure that the HUD regulations and the Section 8 Administrative Plan is followed.

Contact Person: Dexter Ching, Section 8 Subsidy Program Branch Chief

Target Completion Date: June 30, 2009

Public Housing Capital Fund CFDA No. 14.872

Finding No.: 2008-05 Equipment and Real Property Deficiencies - Material Weakness

Criteria: The requirements for maintaining equipment inventory and capital asset accounting are contained in the Federal Common Rule OMB A-102 and the Code of Federal Regulations. Also, the maintaining of appropriate accounting records and the conducting of physical inventories was an annual requirement contained in the 7510, Low-Rent Housing Accounting Guidebook.

Section III – Federal Award Findings and Questioned Costs (continued)

Condition, cause and context: During the audit, we noted that equipment and construction-in-progress (CIP) were not properly monitored and tracked during the fiscal year. A reconciliation of the detailed fixed assets and CIP to the general ledger was not performed during the year and the detailed listings of additions and deletions were not available until requested by the auditors.

Within the Federal Low Rent Program Fund, the HPHA maintains a Construction in Progress (CIP) schedule which details the projects and related costs. However, during our audit, it was noted that the CIP schedule as of June 30, 2008 was not updated for 2008 transactions on a timely basis. Additionally, the HPHA does not maintain an automated detail capital asset register, instead manual excel worksheets and previous detail general ledger printouts are used.

We also noted that the CIP schedule did not detail when projects were completed. Consequently, projects listed within CIP schedule were completed and not transferred to the Capital Assets account. This resulted in a reclassification of CIP assets to Property and Equipment and an adjustment to record the corresponding depreciation expense.

Effect: The lack of appropriate monitoring and reporting may lead to misstatement of the equipment and real property balances and non-compliance with program requirements.

Questioned costs: None

Recommendation: We recommend that the HPHA maintain detailed CIP records and reconcile these records to the general ledger on a timely basis to ensure accurate accounting for assets. Complete information such as the above, on all assets would provide excellent control for the safeguarding of these assets, which are significant in cost.

We, also, recommend that better monitoring, assessment and evaluation of the (CIP) be made regarding the status, completion and transfer of assets from construction in progress to active fixed assets which are being depreciated.

PHA Reply (Corrective Action Plan): The Capital Fund expenditures within the Federal Low Rent Program are presently tracked by the Capital Fund Coordinator using excel worksheets. However, these worksheets were never reconciled to the general ledger. FMO will implement a procedure to reconcile worksheets to General Ledger on a monthly basis. Presently, there is no written procedure for closing projects and re-classing amounts from CIP to fixed assets. FMO will implement a procedure detailing the

Section III – Federal Award Findings and Questioned Costs (continued)

required close out documents and the process of notification from Construction Management to FMO of the status of completed projects so CIP amounts can be cleared out to fixed assets on a quarterly basis. FMO will also research the availability of packaged software that could accommodate its needs in automating this detailed process.

Contact Person: Gary Marushige, Chief Financial Management Advisor

Target Completion Date: June 30, 2009

Finding No.: 2008-06 Reporting – Material Weakness

Criteria: Financial reporting requirements in 24 CFR section 902.33(a)(2) requires the PHA to provide annual reports on a PHA-wide basis and submitted electronically in the format prescribed by HUD using the Financial Data Schedule (FDS). Also, 24 CFR sections 135.3(a) and 135.90, requires that for each public and Indian housing grant that involves development, operating, or modernization assistance, the prime recipient must submit Form HUD 60002, Section 3 Summary Report, Economic Opportunities for Low- and Very Low-Income Persons, (OMB No. 2529-0043).

Condition, cause, and context: Our review of internal controls over reporting requirements described above revealed that there are no PHA employees who have been properly trained to complete and submit the FDS and there is no tracking of required HUD reporting requirements. For example, during the current year HPHA outsourced the completion of the FDS to a third-party, however, there was no HPHA employee who was able to verify the accuracy and propriety of the FDS filing. Also, as a result of not properly tracking HUD reporting requirements, HPHA has not submitted Form HUD 60002 for the past 2 years due to oversight.

Effect: The lack of clearly documented updated policies and procedures related to HUD reporting requirements limits the effectiveness of the HPHA internal control environment over HUD's reporting requirements and may result in noncompliance with program requirements.

Recommendation: HPHA should designate certain employees to be responsible for the FDS and assure that these individuals receive the proper training to understand how to complete and submit the FDS. Also, HPHA should develop a HUD reporting schedule that lists all HUD reporting requirements and the respective individuals responsible to complete the reporting as well as separate individuals responsible for reviewing the HUD reports prior to submission.

Section III – Federal Award Findings and Questioned Costs (continued)

PHA Reply (Corrective Action Plan): The Chief Accountant had been responsible for assisting in preparing the FDS schedule in the past and will continue to be the person in charge. However, FMO will be training additional management personnel (Chief Financial Management Advisor, Fiscal Officer and Budget Analyst) in the preparation. HPHA, through MD Strum, has retained the services of Rector, Lindsay & Reeder to again assist in preparing the FDS submission. The consultant will train the FMO management staff on the procedures for preparing the reports and the consultant will also prepare a policy and procedure manual so written documentation will exist. The HPHA staff will be able to prepare the FDS with their own resources for the next submission.

The HUD reporting requirements will be part of the process review procedure being conducted by MD Strum on the second phase of their assignment. These requirements, including checklists and forms, will be incorporated into the final policy and procedure manual.

Contact Person: Gary Marushige, Chief Financial Management Advisor

Target Completion Date: April 15, 2009

Public and Indian Housing Program CFDA No. 14.850

Finding No.: 2008-07 Special Tests and Provisions – Waiting List – Material Weakness

Criteria: 200824 CFR sections 960.204 through 960.207 require the HPHA to establish policies for verification and documentation of information relevant to acceptance or rejection of an applicant. Due to the excess of applicants on the waiting list for low-income housing in comparison to the number of units available, the HPHA's policy for placing applicants into the program is based upon preference criteria. Applicants on the waiting list who met these preference criteria, with the proper documentation and verification, were admitted to the program.

Condition, cause, and context: During our review of HPHA's controls over the waiting list policy, we were informed by management that there is no quality review performed over the input of initial application information into the waiting list system. The lack of such a review led to findings such as applicants' applications mistakenly not being inputted or improperly being placed on the waiting list. During our review of the waiting list, we noted that applicants were manually written into the waiting list because their applications were mistakenly overlooked or inputted incorrectly. These mistakes were not corrected until the applicant followed up on the application. Also, we were informed by management that changes to the waiting list are not monitored.

Section III – Federal Award Findings and Questioned Costs (continued)

In our discussions with management and in the performance of our audit, we noted several instances during the fiscal year where a "back log" of applications was not entered into the system on a timely basis, as such; several applicants were not included in quarterly re-sequencing when they should have been. Presently, the "back log" of applications noted during the fiscal year has yet to be resolved. Management also stated that applicants pulled from the waiting list are not monitored; there is no quality review to reassure that applicants are properly being pulled from the waiting list.

Our testing of the waiting list resulted in the following exceptions:

For 5 out of 40 new participants tested, we noted that documentation on how the tenant was pulled from the waiting list was missing, as such, we could not ascertain whether or not the applicants were properly pulled from the waiting list.
For 1 our of 40 participants tested, we noted that the initial application submitted by the participant was missing, as such, we could not determine whether or not the participant was initially properly placed on the waiting list.

Effect: Failure to adequately maintain and monitor the waiting list in accordance with the administrative policies has resulted in non-compliance with program requirements.

Public and Indian Housing Program CFDA No. 14.850

Questioned costs: None

Recommendation: We recommend that the HPHA follow its Administration Plan guidelines for the waiting list that were submitted to HUD. We also noted that the Administration Plan allows for HPHA to close the waiting list, which we recommend HPHA implement in order to catch up with its "back log" as described above. We also recommend that HPHA evaluate its Application Department and its various functions, and determine whether the department has sufficient capacity to manage the volume of applications and or if there are any inefficient processes that should be eliminated.

PHA Reply (Corrective Action Plan): HPHA does not concur with the recommendation of closing the waitlist for public housing. This would require that we advertise in publications which then cause an influx of applications prior to the closing and at the time of reopening. It would take months to bring the resulting backlog to current.

Section III – Federal Award Findings and Questioned Costs (continued)

In order to effectively manage the wait list, overtime was allowed for a two month period, where the backlog of applications was processed and brought up to date during the period ending June 30, 2008. The backlog was created because of an administrative rule change notice mailed out to all applicants on the waitlist in September 2007. Over 8,000+ applicants responded and had to be inputted into Emphasys system.

Since mid-July 2008, this section has retained two temporary clerical personnel who are part of the "special team" assignment. This assignment is for a one year period. This section has been able to fill a permanent PHS position as of February 6, 2009.

Application Services Unit (ASU) – Oahu office, has revised and is continuously reviewing its operational procedures. This section is now having the Administrative Assistant process acceptance letters to applicants who have applied. Previously the Public Housing Specialist II did the processing.

Public and Indian Housing Program CFDA No. 14.850 (continued)

The Oahu housing waitlist is currently being purged of nonresponsive addresses by using monthly mass mail outs. This started in staggered stages from January 2009 with the deadline for last mail out being in mid-March.

Contact Person: Michi Kanoura-Hatae, Applications Services Supervisor

Target Completion Date: June 30, 2009

Finding No.: 2008-08 Equipment and Real Property Deficiencies - Material Weakness

Criteria: The requirements for maintaining equipment inventory and capital asset accounting are contained in the Federal Common Rule OMB A-102 and the Code of Federal Regulations. Also, the maintaining of appropriate accounting records and the conducting of physical inventories was an annual requirement contained in the 7510, Low-Rent Housing Accounting Guidebook.

Condition, cause and context: During the audit, we noted that equipment and construction-in-progress (CIP) were not properly monitored and tracked during the fiscal year. A reconciliation of the detailed fixed assets and CIP to the general ledger was not performed during the year and the detailed listings of additions and deletions were not available until requested by the auditors.

Section III – Federal Award Findings and Questioned Costs (continued)

Within the Federal Low Rent Program Fund, the HPHA maintains a Construction in Progress (CIP) schedule which details the projects and related costs. However, during our audit, it was noted that the CIP schedule as of June 30, 2008 was not updated for 2008 transactions on a timely basis. Additionally, the HPHA does not maintain an automated detail capital asset register, instead manual excel worksheets and previous detail general ledger printouts are used.

We also noted that the CIP schedule did not detail when projects were completed. Consequently, projects listed within CIP schedule were completed and not transferred to the Capital Assets account. This resulted in a reclassification of CIP assets to Property and Equipment and an adjustment to record the corresponding depreciation expense.

Effect: The lack of appropriate monitoring and reporting may lead to misstatement of the equipment and real property balances and non-compliance with program requirements.

Questioned costs: None

Recommendation: We recommend that the HPHA maintain detailed CIP records and reconcile these records to the general ledger on a timely basis to ensure accurate accounting for assets. Complete information such as the above, on all assets would provide excellent control for the safeguarding of these assets, which are significant in costs.

We, also, recommend that better monitoring, assessment and evaluation of the (CIP) be made regarding the status, completion and transfer of assets from construction in progress to active fixed assets which are being depreciated.

PHA Reply (Corrective Action Plan): The Capital Fund expenditures within the Federal Low Rent Program are presently tracked by the Capital Fund Coordinator using excel worksheets. However, these worksheets were never reconciled to the general ledger. FMO will implement a procedure to reconcile worksheet to General Ledger on a monthly basis. Presently, there is no written procedure for closing projects and re-classing amounts from CIP to fixed assets. FMO will implement a procedure detailing the required close out documents and the process of notification from Construction Management to FMO of the status of completed projects so CIP amounts can be cleared out to fixed assets on a quarterly basis. FMO will also research the availability of packaged software that could accommodate its needs in automating this detailed process.

Contact Person: Gary Marushige

Section III – Federal Award Findings and Questioned Costs (continued)

Target Completion Date: June 30, 2009

Public and Indian Housing Program CFDA No. 14.850 (continued)

Finding No.: 2008-09 Eligibility – Tenant File Testing

Criteria: 24 CFR section 5.601 and 24 CFR sections 960.253, 960.255 and 960.259 require the HPHA to gather information on income, family size and housing conditions for both new and continuing participants on an annual basis. Based on the information gathered, HPHA housing specialist assess whether or not applicants are eligible to participate in the program based on Federal eligibility guidelines.

Condition, cause, and context: During our testing of participant files, we noted the following:

1) For 2 out of 40 tenant files tested, we noted that a annual re-examination was not performed
2) For 1 out of 40 tenant files tested, we noted that the re-examination was not performed on a timely basis
3) For 1 out of 40 tenant files tested, we noted that the tenant file was missing certain eligibility documents.

Effect: Failure to adequately determine eligibility can lead to non-compliance with program requirements and potential disallowed costs.

Questioned costs: None

Recommendation: We recommend that the HPHA enforce proper implementation of its eligibility policy and procedures and establish a regular quality control review of tenant files by program management. This review and its results should be documented for monitoring at the HPHA management level. Such a quality control review could identify areas requiring more attention by management and ultimately reduce the number of errors.

PHA Reply (Corrective Action Plan): HPHA's Property Management Branch has implemented a quality control review of the tenant files on a monthly basis since October 2008. The Monthly Supervisor Review Procedures requires a 10% review of all annual re-exams and new placements. The monthly reviews are submitted to PMMSB and an error analysis is conducted, tracking the number and type of errors for each review. The review logs and error analysis are then submitted to HUD for their review.

Section III – Federal Award Findings and Questioned Costs (continued)

Contact Person: Stephanie Fo, PMMSB Chief

Target Completion Date: June 30, 2009

Public and Indian Housing Program CFDA No. 14.850 (continued)

Finding No.: 2008-10 Special Tests and Provisions – Project Based Budgeting and Accounting, Classification of Costs and Balance Sheet Allocation – Material Weakness

Criteria: The follow requirements relate to asset management accounting that HPHA was required to implement during fiscal year 2008:

1. *Project Based Accounting:* Per 24 CFR section 990.280(a), PHAs implementing asset management shall develop and maintain a system of budgeting and accounting for each project in a manner that allows for analysis of actual revenues and expenses associated with each property. Financial information to be budgeted and accounted for at a project level shall include all data needed to complete a project-based FDS in accordance with generally accepted accounting principles, including revenues, expenses, assets, liabilities, and equity data.
2. *Classification of Costs:* Per 24 CFR section 990.280(d), for PHAs implementing asset management, if a PHA chooses to centralize functions that directly support a project (e.g., central maintenance), it must charge each project using a fee-for-service approach.

3. *Balance Sheet Allocation:* Per 24 CFR section 990.280(b)(1), PHAs implementing asset management must apportion their assets, liabilities, and equities to their projects and COCC at the time of conversion to project-based accounting.

Condition, cause, and context: Through our discussions with HPHA management and performance of our audit, we noted that due to the lack of training and adequate staffing, asset management accounting as described above was not implemented during the fiscal year.

Effect: Failure to adequately monitor and implement project based accounting can lead to non-compliance with program requirements.

Questioned costs: None

Hawaii Public Housing Authority

Schedule of Findings and Questioned Costs (continued)
Year Ended June 30, 2008

Recommendation: We recommend that the HPHA provide adequate training to its accounting staff to properly implement asset management accounting, including the respective functions of the "emPHAsys" System.

PHA Rep y (Corrective Action Plan): MD Strum has provided training to the applicable HPHA employees on the principles of asset management and project based accounting. They have also provided specialized training to the FMO staff. HPHA has also provided accounting employees special Emphasys retraining sessions by bringing back the trainer to conduct retraining since February 2009. MD Strum will continue to provide training on the details of asset management to improve the staff's knowledge of the system.

The principles of asset management were implemented through the AMPs but project based accounting was only partially implemented due to a lack of a general ledger. Project based budgeting was implemented with the 2009 fiscal year. HPHA will continue the education of the Fiscal Management Office through MD Strum and monitor the application of project based accounting by holding periodic reviews with the AMPs and Central Office Cost Center (COCC) staff.

Contact Person: Gary Marushige, Chief Financial Management Advisor

Target Completion Date: June 30, 2009

PART V

SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS

Hawaii Public Housing Authority

Summary Schedule of Prior-Year Audit Findings
Year Ended June 30, 2008

Section I – Financial Statement Findings

Finding No.: 2007-01 Financial Management Deficiencies-Material Weakness:

During the past fiscal year, HPHA experienced a severe shortage of adequate staffing, including the Fiscal Officer and Chief Accountant positions. These vacancies had a significant impact on the HPHA's ability to perform its core accounting functions. In certain cases, individuals were performing functions in which they did not have the proper formal training or experience.

Condition & cause: With the bifurcation of the Housing and Community Development Corporation into two separate agencies, HPHA was operating without a Chief Accountant or Fiscal Officer during all of the 2007 fiscal year. Although HPHA subsequently hired a Chief Accountant in July 2007, accounting personnel did not have proper oversight and supervision during of the fiscal year, including appropriate reviews and approval of transactions. Consequently, numerous adjustments were recorded subsequent to the year-end closing, which resulted in the completion of the audit being significantly delayed. This lack of dedicated leadership and overall management of its accounting and financial reporting function during the 2007 fiscal year has limited the effectiveness of HPHA's ability to record and report accurate and timely financial information. Some of conditions noted includes but not limited to the following.

- Monthly general ledgers were not prepared
- Monthly reconciliations of all account balances were not performed
- Accruals incorrectly recorded or not recorded at all
- Certain revenues and expense items were recorded on a cash basis
- Journal entries were recorded incorrectly
- Expenses were not allocated on a timely basis
- Unrecorded obligations, including various payables and litigation settlement
- Lapsed appropriations
- Depreciation expense not recorded
- Transfer of assets not properly accounted for between funds

Additionally, as of our report date, subsequent internal monthly general ledgers, reconciliations and financial statements were not being completed on a timely basis.

Hawaii Public Housing Authority

Summary Schedule of Prior-Year Audit Findings
Year Ended June 30, 2008

Section I – Financial Statement Findings (continued)

Finding No.: 2007-01 Financial Management Deficiencies-Material Weakness (continued)

Context: Although the HPHA has subsequently filed the Fiscal Officer (FO) and Chief Accountant position, the lack of proper training is one of the most significant shortcomings of the HPHA. This is evident in the lack of understanding and use of the "emPHAsys" computer system, the application of generally accepted governmental accounting standards, various State of Hawaii generated reports from the Department of Accounting and General Services, and in HUD's reporting requirements. The shortage of training, in combination with the lack of clearly documented policies and procedures and the presence of shortage of staffing, has limited the effectiveness of the HPHA's internal control environment and procedures. Additionally, HUD's reporting requirements, including but not limited to "project-based" accounting, the Real Estate Assessment Center electronic submission filing requirements and asset-management accounting, will further accentuate the need for proper training and supervision. The lack of proper oversight and supervision is a fundamental deficiency in the organization's internal control environment.

Questioned costs: None

Effect: Failure to obtain adequate staffing levels and related controls can lead to misstatement of financial results and non-compliance. As a result of the above, the HPHA's financials were restated for a correction of an error in its accounting for deferred income, see Note 2 of the financial statements.

Recommendation: HPHA needs to assess its current policies and procedures to ensure that internal controls over key accounting, financial reporting and budgeting processes are established and adhered to. Specifically:

1. We recommend that the Fiscal Officer and Chief Accountant should perform an assessment of current processes to:

   - Gain an understanding of each program's objectives and type of major transaction. Perform interviews with the various branch chiefs, program managers, and with compliance officer.

   - Interview each accountant to determine their functions and what financial information is currently prepared and maintained.

   - Perform a gap analysis between the current conditions and desired conditions.

Section I – Financial Statement Findings (continued)

Finding No.: 2007-01 Financial Management Deficiencies-Material Weakness (continued)

- Prepare and implement recommendations.

- Identify any missing key internal controls, including but not limited to the following:

  - Review and approvals of monthly bank reconciliations,
  - Perform month end reconciliation to detail supporting documents. E.g. Review and approval of month-end accruals.
  - Recording of routine transaction: expense allocation, monthly review of CIP transfers, month end accruals.

- Consider developing a month end closing checklist to ensure that accurate financial information is prepared timely. The month end checklist should be tailored to the specific requirements of each fund. For example: Federal low rent- checklist would include procedures specific to capital improvements.

- Monitor control systems to ensure effectiveness. Timely review and approvals by appropriate personnel.

- As a majority of the agency's funding are HUD subsidies, need to establish and maintain controls over operating and capital improvement budgets.

2. The HPHA should continue its efforts in seeking to hire a Chief Financial Officer. In addition, the agencies should evaluate the need to hire on a temporary basis experienced personnel to provide the appropriate oversight and supervision over the accounting and reporting functions.

PHA Reply (Corrective Action Plan): We acknowledge the problems caused by the lack of adequate staffing and internal controls, and concur with the above recommendations. Recognizing the need for management level leadership, HPHA created the position of a chief financial officer (formally known as the Chief Financial Management Advisor -- CFMA) in August 2007 and has been recruiting ever since without success, even with the services of a placement firm. The maximum rate of pay ($70,000 - $80,000) allowed for the position given HPHA's attached agency status is relatively low. CFOs are compensated at higher rates in other state departments and in the public housing authority sector. As an alternative, HPHA developed a request for proposals in October to contract with CPA firms that provided accounting services and financial management combined with knowledge of HUD. Despite advertising several times, no firms

Hawaii Public Housing Authority

Summary Schedule of Prior-Year Audit Findings
Year Ended June 30, 2008

Section I – Financial Statement Findings (continued)

Finding No.: 2007-01 Financial Management Deficiencies-Material Weakness (continued)

were able to meet our needs. HPHA attempted to have HUD deploy staff from Hawaii or mainland offices to oversee the fiscal management office, with no success. In December 2007, the state Department of Accounting & General Services deployed a senior manager and several staff accountants, and HPHA hired a CPA firm to provide basic accounting services under DAGS's direction. This resulted in the financial information that went to the auditor for FY 2007, as well as FY 2008 summary financial information for the period 7/1/2007 through 12/31/2007. HUD stepped in to provide technical assistance in March 2008, and is set to contract with a financial consultant beginning May 2008 to work on HPHA's behalf for 6 to 12 months. HPHA also contracted with a short term bridge financial consultant in late March 2008. Search to fill the CFMA position has been ongoing. Due to lack of qualified accounting applicants (affecting industry and government), as of March 2008 the agency has filled only 9 of 15 accounting positions, and still has not filled its budget analyst position. HPHA intends to supplement staff positions by evaluating the gaps with current staffing levels, then contracting to fill those gaps with temporary accounting services under the guidance of the financial consultant contracted by HUD.

Despite the lack of financial management information, HPHA presented for board review and approval a FY 2008 budget in October 2007, the first time an Authority-wide consolidated budget has been presented to the board in at least 30 years. The HPHA accounting staff started to develop a general ledger beginning 1/1/08. The Fiscal Officer and Chief Accountant are assessing current staff proficiency levels and scheduled initial training in January 2008 for staff to insure that the emPHAsys ECS financial management software system will be used as designed and that the transition to project based accounting will be in compliance with all applicable Federal regulations and generally accepted accounting procedures. Staff received training in encumbrances from Department of Human Services managers in February 2008. HPHA is currently implementing internal controls in response to the cited deficiencies. In March 2008, in response to the HUD technical assistance recommendations, HPHA formed an Asset Management Implementation Committee to drive preparation for July 1, 2008 implementation of asset management.

Contact Person: Chad Taniguchi, Executive Director (808) 832-4694; (Fax) 832-4679

Target Completion Date: June 30, 2009

Status: Comment still applicable. See finding **2008-01**.

Hawaii Public Housing Authority

Summary of Schedule of Prior-Year Audit Findings
Year Ended June 30, 2008

Section I – Financial Statement Findings (continued)

Finding No.: 2007-02 No General Ledger and Non-reconciliations of General Ledger Accounts-Material Weakness:

Criteria: Internal Control deficiencies and Federal regulations require that the books and records of account should be maintained on a regular monthly basis for all programs.

Condition, cause & context: During the year, HPHA had installed the ""emPHAsys"" general ledger system software to provide HPHA with a general ledger system that would also be able to address HUD's new reporting requirements. However, the use of the system had been very limited and in some instances not used at all. This lack of understanding of the "emPHAsys" computer system coupled with no Chief Accountant have resulted in monthly general ledgers not being prepared during the fiscal year. Consequently, the key internal control activity of routine monthly reconciliations of the general ledger accounts balances to the corresponding transaction or activity details was not performed during the year. For example, several major cash balances, account receivables, payables and accrued liabilities general ledger accounts, including amounts due from federal programs and from tenants, were not reconciled until the performance of the audit. Accordingly, numerous adjustments were recorded subsequent to the year end closing to correct various general ledger accounts. Without "reliable and timely" financial information, management decisions related to operations may be comprised. The following is a list of issues during the audit as a result of the lack of the general ledger and respective account reconciliations:

- Lack of financial statements
- Lack of information to perform budget to actual comparisons to determine if the HPHA has sufficient funds to adequately cover operations. Additionally, the lack of budgetary control could result in the HPHA operating with deficits
- Lack of information to perform monthly cost analysis by Management Unit (MU) level to identify the causes of any overruns

As of our report date, subsequent general ledgers and account reconciliations were not being completed. With the HUD required implementation of "asset-management" and "project-based" accounting, this situation would be further exacerbated. The lack of proper understanding of general ledger system and lack of account reconciliations is a fundamental deficiency in the organization's internal control environment.

Questioned costs: None

Hawaii Public Housing Authority

Summary of Schedule of Prior-Year Audit Findings
Year Ended June 30, 2008

Section I – Financial Statement Findings (continued)

Finding No.: 2007-02 No General Ledger and Non-reconciliations of General Ledger Accounts-Material Weakness (continued)

Effect: Failure to adequately record all related financial activities can lead to misstatement of financial results and non-compliance.

Recommendation: HPHA's policy is post journal vouchers to the general ledger and to perform monthly reconciliations for respective accounts. To ensure the accuracy and completeness of the HPHA's financial information, we recommend that management provide training in the full use of its general ledger system and comply with its policy and post journal vouchers to the general ledger and perform account reconciliations in a timely manner.

PHA Reply (Corrective Action Plan): We will review all books of account, policies & procedures and other items to insure that all transactions are correctly recorded and adequately monitored. In addition, journal vouchers and related accrual will be recorded on a regular basis to prevent recurrence of this deficiency. The agency acknowledges the lack of training in the use of its computer system "emPHAsys". While training was scheduled to occur during Fiscal Year 2007 the trainer's time was largely focused on development of the general ledger system. Training was also hindered due to hardware and software failures by the "emPHAsys" system and HPHA's internet connections, which prevented the timely input of information for the completion of the general ledger. Starting with January 2008, all information was been inputted and updated in the "emPHAsys" system, hardware was upgraded and training was scheduled for May, June, and July 2008 to increase the accountants' proficiency in the use of the software. These actions should be sufficient to eliminate all cited deficiencies.

Contact Person: Gary Nakatsu, Information Technology Chief (808) 832-5937

Target Completion Date: July 30, 2009

Status: Comment still applicable. See finding **2008-02**.

Finding No.: 2007-03 Lack of Clear Policies and Procedures-Material Weakness

Criteria: Internal controls; General Accounting Standards. In addition, the requirements for appropriate controls over Federal programs are contained in the Code of Federal Regulations and the Low-Rent Housing Financial Management Handbook, 7475.1. Also, good internal control procedures require that policies and procedures should be in place and operating effectively.

Hawaii Public Housing Authority

Summary of Schedule of Prior-Year Audit Findings
Year Ended June 30, 2008

Section I – Financial Statement Findings (continued)

Finding No.: 2007-03 Lack of Clear Policies and Procedures-Material Weakness (continued)

Condition, cause, and context: Our review of internal controls revealed that the accounting and budgets departments do not maintain updated formal policies and procedures manuals or documents related to key internal control functions or activities. For example, HPHA does not maintain documented policies and procedures related to cash reconciliations, tenant accounts receivable reconciliations, general accounts payable processing, HPHA'S reporting, Capital Fund monitoring, or financial reporting procedures, including REAC's electronic submission filing.

The lack of clearly documented updated policies and procedures limits the effectiveness of the HPHA internal control environment and procedures and may result in additional costs expended by HPHA. This is especially true in situations where personnel are new to a position and performing certain functions for the first time. An example of such a situation was the hiring of an outside consultant to complete HPHA's REAC electronic submission filing.

Recommendation: HPHA should assess its current internal control polices and procedures related to key accounting and budgeting processes. Upon the completion of such assessment, a formal policies and procedures manual for all key accounting and budgeting functions. Any material changes to existing policies should be approved via resolution by the Board of Commissioners.

PHA Reply (Corrective Action Plan): We will review all Fiscal Management Office functions in light of the above recommendations. During Fiscal year 2007, HPHA developed a policy and procedures manual but due to department vacancies it was never implemented. At present, the manual is being verified and updated by current FMO management and will be presented to the HUD contracted financial consultant before being submitted to the Board for approval. All staff will be provided copies and training related to these policies so the HPHA will have these controls in place by the end of Fiscal 2008 so that this will not be an issue in subsequent periods.

Contact Person: Patti Miyamoto, Chief Compliance Officer (808)832-5904 ;(Fax) 832-3943

Target Completion Date: June 30, 2008

Status: Comment still applicable. See finding **2008-03**.

Hawaii Public Housing Authority

Summary of Schedule of Prior-Year Audit Findings
Year Ended June 30, 2008

Section II – Federal Award Findings and Questioned Costs

Section 8 Housing Choice Vouchers Program CFDA No. 14.871

Finding No.: 2007-04 Special Test and Provision-HUD Income Targeting Requirements

Criteria: 24 CFR 982.201(b) (2) (iii)

Condition, cause, and context: Based on our testing of the Housing Choice Voucher Program's waiting list, we noted the HPHA does not monitor its compliance with HUD Income Targeting Requirements which requires at least 75% of new admissions to be in the extremely low income and 25% very low income range (24 CFR 982.201(b)(2)(iii)). We also noted that the HPHA could not provide a report to ascertain whether or not it is in compliance with the income targets aforementioned. It was further noted that the HPHA failed to obtain a wavier from HUD.

Effect: Non-compliance.

Questioned costs: None

Recommendation: We recommend the HPHA structure program monitoring in such a manner that allows for compliance monitoring over admissions in order to adequately address HUD Income Targeting Requirements.

PHA Reply (Corrective Action Plan): HPHA will step up its efforts to monitor HUD Income Targeting requirements and will activate the ECS crystal reports writer module that will generate this report to document its attempts to maintain compliance with these requirements. If HPHA is unable to meet these requirements, it will request a waiver from HUD. HPHA will also set up a binder where reports will be housed and reviewed on a regular basis to document attempts at meeting HUD program requirements.

Contact Person: Dexter Ching, Section 8 Subsidy Program Branch Chief (808)832-5933 ;(Fax) 832-3461

Target Completion Date: June 30, 2008

Status: Comment no longer applicable.

Hawaii Public Housing Authority

Summary of Schedule of Prior-Year Audit Findings
Year Ended June 30, 2008

Section II – Federal Award Findings and Questioned Costs (continued)

Finding No.: 2007-05 Special Tests and Provisions - Waiting List

Criteria: 24 CFR sections 5.410, 982.54(d) and 982.201 through 982.207 require the HPHA to establish policies for verification and documentation of information relevant to acceptance or rejection of an applicant.

Condition, cause, and context: Due to the limited number of housing vouchers, the HPHA's policy for placing applicants into the program is based upon preference criteria. Applicants on the waiting list who met these preference criteria, with the proper documentation and verification, were admitted to the program.

During our inquiry of HPHA's controls over the waiting list policy, we were informed by management that the waiting list was opened during the year for a short period, which resulted in approximately 3,400 new applicants during the fiscal year. When reviewing controls over these new applicants, we noted that not all applicants were properly entered into the system. This is not in compliance with the Housing Choice Voucher Program's Administrative Plan submitted and approved by HUD and as a result we were not able to adequately test system controls. We noted that only eligible applicants from the first day were placed on the waiting list and all applicants after the first day, whether eligible or ineligible, were labeled as "INACTIVE" and excluded from the waiting list. Accordingly to Housing Choice Voucher Program management, this was done to give preference to the people who applied on the first day.

Effect: Failure to adequately maintain the waiting list and follow administrative the administrative plan results in non-compliance and represents a scope limitation for the tests of controls and compliance with OMB A-133 requirements.

Questioned costs: None

Recommendation: We recommend that the HPHA complies with its Administration Plan guidelines for the waiting list that were submitted to HUD.

PHA Reply (Corrective Action Plan): HPHA will go back into the system and restore all applicants who applied in December to active status to insure that they are contacted in the correct order in relation to the application time and preferences, if any. HPHA will review the policies and procedures for opening the waiting list and in the future will provide greater details to be fair and to provide potential voucher recipients a realistic timetable for when they will be eligible for application processing.

Hawaii Public Housing Authority

Summary of Schedule of Prior-Year Audit Findings
Year Ended June 30, 2008

Section II – Federal Award Findings and Questioned Costs (continued)

Finding No.: 2007-05 Special Tests and Provisions - Waiting List (continued)

Contact Person: Dexter Ching, Section 8 Subsidy Program Branch Chief (808)832-5933 ;(Fax) 832-3461

Target Completion Date: June 30, 2008

Status: Comment no longer applicable.

Public and Indian Housing Program CFDA No. 14.850

Finding No.: 2007-06 Eligibility - Tenant Files-Material weakness:

Criteria: 24 CFR section 5.601and 24 CFR sections 960.253, 960.255 and 960.259 require the HPHA to gather information on income, family size and housing conditions for both new and continuing participants on an annual basis. Based on the information gathered, HPHA housing specialist assess whether or not applicants are eligible to participate in the program based on Federal eligibility guidelines.

Condition, cause, and context: During our testing of participant files, we noted the following:

1) For 18 tenant files, we noted that the required eligibility checklist was included in the tenant file but not properly checked off and or signed by the housing specialist. Nine out of the 18 files were missing either required 3rd party verifications, completion of forms or signatures on required forms.
2) For 2 tenant files, we noted that 3rd party verification of income was missing.
3) For 1 tenant file, we noted that the birth certificate was missing and for 1 tenant file, we noted that eligible income was miscalculated.

Effect: Failure to adequately determine eligibility can lead to non-compliance and potential disallowed costs.

Questioned costs: None

Recommendation: We recommend that the HPHA enforce proper implementation of its eligibility checklists and establish a regular quality control review of tenant files by program management. This review and its results should be documented for monitoring at the HPHA management level. Such a quality control review could identify areas requiring more attention by management and ultimately reduce the number of errors.

Hawaii Public Housing Authority

Summary of Schedule of Prior-Year Audit Findings
Year Ended June 30, 2008

Section II – Federal Award Findings and Questioned Costs (continued)

Public and Indian Housing Program CFDA No. 14.850 (continued)

Finding No.: 2007-06 Eligibility - Tenant Files-Material weakness (continued)

PHA Reply (Corrective Action Plan): The HPHA will establish additional quality control procedures to better identify areas for improvement. This will include regular reviews by on-site personnel and management staff. HPHA will document the results of these reviews including the follow-up process for any identified deficiencies. This will insure that all initial certifications and ongoing re-certifications are conducted in accordance with HPHA and HUD policies and procedures.

Contact Person: Michi Kanoura-Hatae, Application Services Supervisor (808) 832-3427; (Fax) 832-5964

Target Completion Date: June 30, 2008

Status: Comment no longer applicable.

Finding No.: 2007-07 Eligibility - Waiting List

Criteria: 200824 CFR sections 960.204 through 960.207 require the HPHA to establish policies for verification and documentation of information relevant to acceptance or rejection of an applicant. Due to the excess of applicants on the waiting list for low-income housing in comparison to the number of units available, the HPHA's policy for placing applicants into the program is based upon preference criteria. Applicants on the waiting list who met these preference criteria, with the proper documentation and verification, were admitted to the program.

Condition, cause, and context: During our discussions with management, we noted that in the past housing specialists re-sequenced the waiting list on a daily basis, which is in accordance with the Administration Plan submitted and approved by HUD. Applicants are ranked by preference points. As such, when sequencing was done daily, the applicants would fluctuate on the waitlist, depending on changes to existing applicants' preference status and new applicants' preferences. As such, management initiated a quarterly re-sequencing to alleviate such fluctuations and to standardize the waitlist. The waitlist is now re-sequenced quarterly (1st working day of month). This policy is neither documented nor approved by HUD.

Hawaii Public Housing Authority

Summary of Schedule of Prior-Year Audit Findings
Year Ended June 30, 2008

Section II – Federal Award Findings and Questioned Costs (continued)

Public and Indian Housing Program CFDA No. 14.850 (continued)

Finding No.: 2007-07 Eligibility - Waiting List (continued)

In our discussions with management and in the performance of our audit, we noted several instances during the year where a "back log" of applications was not entered into the system on a timely basis, as such; several applicants were not included in quarterly re-sequencing when they should have been. We also noted that there still remains a "back log" of applications submitted during the fiscal year that had not been entered into the system.

Effect: The fact that several applicants were not properly placed on the waiting list limits our scope for testing controls over compliance with OMB A-133 and test of compliance with OMB A-133 requirements.

Questioned costs: None

Recommendation: We recommend that the HPHA follow its Administration Plan guidelines for the waiting list that were submitted to HUD or resubmit a revised Administration Plan that incorporates management's decision noted above. We also recommend that the HPHA evaluate its Application Department and its various functions, and determine whether the department has sufficient capacity to manage the volume of applications and or if there are any inefficient processes that should be eliminated.

PHA Reply (Corrective Action Plan): Management will review the current waiting list to insure that any backlogged applications have been input into the system. In addition, the list will be reviewed to make sure that all applicants are sequenced in accordance with the current approved Administrative Plan. This will help to insure that persons on the waiting list will be contacted in the correct order in relation to the initial application time and preferences. In the future, HPHA will review the policies and procedures for opening the waiting list and will obtain HUD approval prior to any future re-sequencing provisions. HPHA is the process of transferring some of the responsibilities for applications final processing from the central applications section to the staff where the housing units are located. This move is intended to speed up placements by providing better coordination between those fixing units and those filling units. HPHA also approved, effective November 2007, for applicants to have only one choice of housing placements (instead of three previously). Since December, HPHA has worked with the Bank of Hawaii to evaluate processing speed with the eye to streamline procedures.

Contact Person: Michi Kanoura-Hatae, Application Services Supervisor (808) 832-3427; (Fax) 832-5964

Target Completion Date: June 30, 2008.

Hawaii Public Housing Authority

Summary of Schedule of Prior-Year Audit Findings
Year Ended June 30, 2008

Section II – Federal Award Findings and Questioned Costs (continued)

Public and Indian Housing Program CFDA No. 14.850 (continued)

Finding No.: 2007-07 Eligibility - Waiting List (continued)

Status: Comment still applicable. See finding **2008-07**.

Finding No.: 2007-08 Equipment and Real Property Deficiencies-Material weakness

Criteria: The requirements for maintaining equipment inventory and capital asset accounting are contained in the Federal Common Rule OMB A-102 and the Code of Federal Regulations. Also, the maintaining of appropriate accounting records and the conducting of physical inventories was an annual requirement contained in the 7510, Low-Rent Housing Accounting Guidebook.

Condition, cause and context: During the audit, we noted that equipment and construction-in-progress (CIP) were not properly monitored and tracked during the fiscal year. A roll forward of fixed assets and CIP was not maintained and detailed listings of additions and deletions were not available until requested by the auditors.

Within the Federal Low Rent Program Fund, the HPHA maintains a Construction in Progress (CIP) schedule which details the projects and related costs. However, during our audit, it was noted that the CIP schedule as of June 30, 2007 was not updated for 2007 transactions on a timely basis. Additionally, the HPHA does not maintain an automated detail capital asset register, instead manual excel worksheets and previous detail general ledger printouts are used.

We also noted that the CIP schedule did not detail when projects were completed. Consequently, projects listed within CIP schedule were completed and not transferred to the Capital Assets account. This resulted in a reclassification of CIP assets to Property and Equipment and an adjustment to record the corresponding depreciation expense.

Effect: Non-compliance.

Questioned costs: None

Hawaii Public Housing Authority

Summary of Schedule of Prior-Year Audit Findings
Year Ended June 30, 2008

Section II – Federal Award Findings and Questioned Costs (continued)

Public and Indian Housing Program CFDA No. 14.850 (continued)

Finding No.: 2007-08 Equipment and Real Property Deficiencies-Material weakness (continued)

Recommendation: We recommend that the HPHA maintain detailed CIP records and reconcile these records to the general ledger on a timely basis to ensure accurate accounting for assets. Complete information such as the above, on all assets would provide excellent control for the safeguarding of these assets, which are significant in costs.

We, also, recommend that better monitoring, assessment and evaluation of the (CIP) could be made regarding the status, completion and transfer of assets from construction in progress to active fixed assets which are being depreciated.

PHA Reply (Corrective Action Plan): We are in agreement with this finding. HPHA will take the appropriate steps to insure that an inventory of all capital assets will be taken in May and June 2008, so that all required adjustments can be recorded in the general ledger prior to the closing of the June 30, 2008 financial statements. We are currently assessing all inter-department functions to determine the appropriate staffing assignments for this task and related emPHAsys ECS software functions to insure adequate controls will be in place by the year-end close. Since January 2008 HPHA has been publishing the completion date of projects in its reports to the board of directors for greater transparency and better record keeping.

Contact Person: Derek Fujikami, Construction Management Branch (808) 832-5374; (Fax) 832-4679

Target Completion Date: July 15, 2008

Status: Comment still applicable. See finding **2008-08**.

Approved by the Executive Director CJ
March 19, 2009

FOR ACTION

SUBJECT: To Adopt Board Resolution No. 15 to Ratify the Capital Fund Program Amendment (form HUD 52840-A) to the Consolidated Annual Contributions Contract (form HUF 53012) Due to an Increased Appropriation Under the American Recovery and Reinvestment Act

A. FACTS

1. In February 2009, President Obama signed the American Recovery and Reinvestment Act (ARRA) which provided supplemental appropriations for job preservation and creation, infrastructure investment, energy efficiency and science, assistance to the unemployed, and State and local fiscal stabilization, for the fiscal year ending September 30, 2009.

2. Under the ARRA formula allocation for capital funds, the HPHA is to receive $16,245,443.00 for capital improvement activities. The funds can be used for activities that are currently eligible under the Capital Fund program regulations.

3. On March 4, 2009, the Executive Director submitted a Capital Fund Program Amendment No. 140 to the Consolidated Annual Contributions Contract in order to receive the $16,245,443.00 formula allocation. Included at Attachment A is a copy of the executed amendment.

4. Included at Attachment B are the capital planning tables for the federal capital fund supplemental appropriation under the ARRA.

5. On March 9, 2009, HUD's Office of General Counsel, via email from HUD's Honolulu Field Office, confirmed that public housing agencies (PHA) are allowed to take projects that are currently funded with State dollars and make them ARRA projects and then move their State funds to other public housing capital improvement projects. If the State's maintenance of effort is not decreased, the ARRA funding would be considered to supplement and not supplant the State funds provided that the State funds are then used for another public housing capital improvement project.

B. DISCUSSION

1. HUD has indicated that in order to use the additional funds on specific projects HPHA must make the corresponding changes to the PHA Plan's Annual Plan for the Capital fund program. The HPHA has determined that the PHA Plan includes projects identified in the final version of the HPHA's 2008 Five Year and Annual Plan.

2. Additionally, the HPHA will submit the updated Five Year and Annual Plan to HUD in April 2009 which will identify all public housing sites as eligible to receive Capital funds.

3. At this time, staff is recommending that 100% of the ARRA appropriation be used for capital improvement activities. No funds have been budgeted for administrative costs. Staff will continue to monitor obligation of the funds over the next 12 months and if necessary, request Board approval to revise the use of the funds so that no funds will lapse.

4. The HPHA will continue to report its progress to the Department of Human Services' Director's Office (via Designee Henry Oliva) and to the HPHA Board of Directors on a monthly basis.

5. HUD still has not released information or requirements on the $1.0 billion in competitive funds under the ARRA. The National Association of Housing Organizations (NAHRO) has indicated that any proposals for the competitive funds will likely be due no later than the middle of 2009 as HUD is required to obligate all funds no later than September 2009.

6. Staff is working with Ameresco, under the energy performance contract, to identify possible projects for application for the competitive ARRA capital funds.

C. RECOMMENDATION

That the HPHA Board of Directors adopt Board Resolution No. 15 to ratify the Capital Fund Program Amendment (form HUD 52840-A) to the Consolidated Annual Contributions Contract (form HUF 53012) due to an increased appropriation under the American Recovery and Reinvestment Act (ARRA).

Prepared by: Barbara E. Arashiro, Executive Assistant

American Recovery and Reinvestment Act (ARRA) Formula Grant

Capital Fund Program (CFP) Amendment
To The Consolidated Annual Contributions Contract (form **HUD-53012**)

U.S. Department of Housing and Urban Development
Office of Public and Indian Housing

Whereas, (Public Housing Authority) Housing & Community Dev. Corp. of Hawaii (HI001) (herein called the "PHA") and the United States of America, Secretary of Housing and Urban Development (herein called "HUD") entered into Consolidated Annual Contributions
Hawaii Public Housing Authority
Contract(s) ACC(s) Number(s) SF-181 dated: 7/1/1998

Whereas, HUD has agreed to provide American Recovery and Reinvestment Act (ARRA) assistance, upon execution of this Amendment, to the PHA in the amount to be specified below for the purpose of assisting the PHA in carrying out capital and management activities at public housing developments in accordance with the requirements of the ARRA including Title XVI general provisions of the ARRA, in order to ensure that such developments continue to be available to serve low-income families:

$ 16,245,443 for Fiscal Year 2009 to be referred to under Capital Fund Grant Number HI08S00150109

PHA Tax Identification Number (TIN). On File

Whereas, HUD and the PHA are entering into the CFP Amendment Number 140

Now Therefore, the ACC(s) is (are) amended as follows:

1. The ACC(s) is (are) amended to provide CFP assistance in the amount specified above for capital and management activities of PHA developments. This amendment is a part of the ACC(s).

2. The capital and management activities shall be carried out in accordance with all HUD regulations and other requirements applicable to the Capital Fund Program and ARRA and in accordance with the PHA's current 5-year Capital Fund Plan.

3. Subject to the provisions of the ACC(s) and to assist in the capital and management activities, HUD agrees to disburse to the PHA or the designated trustee from time to time as needed up to the amount of the funding assistance specified herein.

4. The PHA shall continue to operate each development as low-income housing in compliance with the ACC(s), as amended, the Act and all HUD regulations for a period of twenty years after the last disbursement of CFP/ARRA assistance for modernization activities and for a period of forty years after the last distribution of CFP/ARRA assistance for development activities. Provided further that, for a period of ten years following the last payment of assistance from the Operating Fund to the PHA, no disposition of any development covered by this amendment shall occur unless approved by HUD.

5. If the PHA does not comply with any of its obligations under this Amendment, HUD shall impose such penalties or take such remedial action as provided by law. HUD may direct the PHA to terminate all work. In such case, the PHA shall only incur additional costs with HUD approval.

6. By execution of this amendment all PHAs that are PHAS troubled acknowledge and agree to additional monitoring and oversight by HUD and its agents/contractors as deemed appropriate and necessary in order to ensure the proper use of the funds received by this amendment.

7. This grant is conditioned on the acceptance of the PHA to comply with the reporting requirements of the ARRA and the following requirements:
a. Funds cannot be transferred to operations or used for rental assistance activities.
b. The PHA must obligate 100% of the grant within one year of the effective date. At the one year date any unobligated funds will be recaptured.
c. The PHA must expend at least 60% of the grant within two years of the effective date. At the two year date if less than 60% is expended any unexpended funds will be recaptured.
d. The PHA must expend 100% of the grant within 3 years of the effective date. At the three year date any unexpended funds will be recaptured.
e. Extensions to the obligation and expenditure dates are not permitted.
f. The PHA must submit an annual statement and board resolution no later than 21 calendar days from the effective date.
g. The PHA shall give priority to capital projects that can award contracts based on bids within 120 from the effective date.
h. The PHA shall give priority consideration to the rehabilitation of vacant rental units.
i. The PHA shall prioritize capital projects that are already underway or included in the 5-year Capital Fund Plan.
j. The PHA must use the funds provided in this grant to supplement expenditures not supplant expenditures from other Federal, State, or local sources or funds independently generated by the grantee.
k. The PHA will provide a physical needs assessment, as specified by HUD, using funds from this grant or other Capital Funds.
l. Requirements relating to the procurement of goods and services arising under state and local laws and regulations shall not apply to the CFP assistance provided by this agreement.

8. The PHA acknowledges its responsibility for adherence to this amendment.

The parties have executed this Agreement, and it will be effective on 3/18/2009. This is the date on which CFP assistance becomes available to the PHA for obligation.

U.S. Department of Housing and Urban Development	**PHA Executive Director**
By Date:	By Date: 3/4/09
Title	Title Chad K. Taniguchi Executive Director

Previous versions obsolete

form **HUD-52840-A** 03/04/2003

RESOLUTION NO. 15

HAWAII PUBLIC HOUSING AUTHORITY
STATE OF HAWAII

RESOLUTION APPROVING THE CAPITAL FUND PROGRAM AMENDMENT TO THE CONSOLIDATED ANNUAL CONTRIBUTIONS CONTRACT (FORM HUD-53012)

WHEREAS, the Board of Directors of the Hawaii Public Housing Authority (HPHA) entered into Consolidated Annual Contributions Contract (ACC) No SF-181 dated July 1, 1998 with the U.S. Department of Housing and Urban Development (HUD), and

WHEREAS, HUD has agreed to provide American Recovery and Reinvestment Act (ARRA) assistance to the HPHA in an amount of $16,245,443 for the purpose of carrying out capital and management activities at federal public housing developments in accordance with the requirements of the ARRA including Title XVI general provisions, and

WHEREAS, HPHA and HUD entered into the Capital Fund Program Amendment Number 140 to receive the additional ARRA formula allocation, and

WHEREAS, the HPHA agreed to comply with the requirements for eligible activities, reporting, and expenditure deadlines of the ARRA, and

WHEREAS, the HPHA is required to submit an annual statement and board resolution no later than 21 calendar days from the effective date of the executed Agreement.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the Hawaii Public Housing Authority hereby approves the Capital Fund Program (CFP) Amendment, dated March 4, 2009 to the Consolidated Annual Contributions Contract with HUD and the proposed list of projects in the Capital Fund Program Annual Statement.

The UNDERSIGNED, hereby certifies that the foregoing resolution was duly adopted by the Directors of the Hawaii Public Housing Authority on March 19, 2009 in Honolulu, Hawaii.

_____
Travis O. Thompson, Chairperson

3/13/2009 PROJECT TITLE PLAN B	Proposed ARRA
David Malo Circle Exterior Improvements Paint, Roofing, Site Work (Const)	600,000
Hale Hauoli at Honokaa, Hawaii Painting, Re Roofing and Renovation (Const)	2,800,000
Hale Hookipa, Nani Olu, Noelani, and Paoakalani Reroofing (Const)	3,000,000
Kaimalino and Kealakehe Reroofing (Const)	1,000,000
Kalihi Valley Homes Site and Dwelling Improvement Phase IVa (Const)	4,000,000
Makani Kai Hale Physical Improvements (Const)	2,200,000
Mayor Wright Homes Physical Improvements to Reroofing (Const)	100,000
Puuwai Momi, Electrical System Repairs (Const) I & II	1,600,000
Type C Units (Const)	1,000,000
HUD STIMULUS	**16,300,000**
David Malo Circle Exterior Improvements Paint, Roofing, Site Work (Design)	100,000
Kaahumanu Homes, Reroofing (Const)	1,150,000
Kalanihuia Physical Improvements to Elevator Security (Const)	340,000
Kalihi Valley Homes Site and Dwelling Improvement Phase IVa (Const)	3,100,000
Kauiokalani, Reroofing (Const)	22,000
KPT, Reroofing (Const)	924,000
KPT, Trash Chutes (Const)	884,444
Mayor Wright Building 11, 20, 22, 23, 24 Structural Repairs (Design)	135,000
Palolo Valley Homes Physical Improvements (Design)	1,000,000
Wahiawa Terrace, Re-roof (Const)	600,000
David Malo Circle Exterior Improvements Paint, Roofing, Site Work (Const)	200,000
Kahekili Terrace Improvements (Const)	3,448,000
Makua Alii Structural and Spall Repairs (Const)	6,075,625
Elevators Modernization of 17 at Various Oahu Locations (Const)	6,000,000
ADA Compliance for Various Federal Projects (Design)	1,700,000
Hale Aloha O`Puna ADA Units & Roof (Design)	140,000
Hale Hoolulu Repaint, ReRoof, Emergency Call System Prepare Tank Enclosure (Des	40,000
Hale Nana Kai O`Kea Physical Improvement (Design)	200,000
Hui O Hanamaulu Physical Improvements (Design)	80,000
Kalaheo Homes Physical improvements (Design)	95,000
Pomaikai ADA Units and Modernization (Design)	400,000
Puahala Homes Ib Abatement and Modernization (Design)	60,000
School St Bldg A Hazmat Abatement (Design)	200,000
Hale Hoolulu Repaint, ReRoof, Emergency Call System Prepare Tank Enclosure (Con	300,000
Hui O Hanamaulu Physical Improvements (Const)	700,000
Kahale Mua State Site & Bldg Mod (Const)	1,200,000
Kalaheo Homes Physical improvements (Const)	720,000
Kalakaua Homes Roof Improvements (Const)	400,000
Kawailehua (Federal) Exterior Improvements (Const)	800,000
Kawailehua (State) Improvements (Const)	1,500,000
Puahala Homes Ib Abatement and Modernization (Const)	800,000
Elevator Maintenance Service for Various State-Funded Projects (Const)	75,860
Hoolulu and Kamalu Emergency Call System Repair (Design)	72,040
Kaimalino and Kealakehe Renovation of Vacant Units (Const)	225,102
Kalakaua Homes Roof Improvements (Const)	35,888
Kauiokalani, Type "C" Repairs (Const)	120,000
KPT, Elevator, Modernization of Six Elevators (Const)	105,549
KPT, Type "C" Units Renovation/Repair	12,000
Maili II Type "C" Unit Repairs	11,000
Paoakalani Interior Repairs 17th Floor Units (Const)	250,000
School Street Renovations, Building M (Both)	620,292
TOTAL 718, 719, 08-CIP	**34,841,800**

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Approved by the Executive Director CJ
March 19, 2009

FOR ACTION

SUBJECT: To Authorize the Executive Director to Enter into a Contract With the U.S. Department Housing and Urban Development (HUD) for Utilization of Homeless Prevention Rapid Re-housing funds in Hawaii, Maui, and Kauai

I. FACTS

A. The State of Hawaii is eligible to receive $2,166,888 on behalf of the rural Counties of Hawaii, Maui and Kauai for Homeless Prevention Rapid Re-housing Program under the American Recovery and Reinvestment Act of 2009.

B. The funds appropriated are restricted and must be utilized over three years for the following activities:
- Provision of short-term or medium-term rental assistance;
- Housing relocation and stabilization services.
- Housing search, mediation or outreach to property owners;
- Credit repair:
- Security or utility deposits;
- Utility payments;
- Rental Assistance for a final month at a location;
- Moving cost assistance;
- Case management; or
- Other appropriate activities for homelessness prevention and rapid re-housing of persons who have become homeless.

C. The funds target rapid re-housing activities for people who have become homeless, and homeless prevention activities for people who are at imminent risk of losing their permanent housing and becoming homeless. Rapid re-housing shall include successfully moving families to independent, subsidized housing after receiving short-term leasing assistance.

D. At least 60 percent of the funds must be expended within two years of the date that funds become available for obligation, and 100 percent of funds must be expended within three years of such date.

E. The City and County of Honolulu is receiving $4,016,074 for the Homeless Prevention Rapid Re-housing Program as a separate allocation.

II. DISCUSSION

A. The U.S. Department of Housing and Urban Development (HUD) will post rules for the homeless prevention rapid re-housing program in mid March. At the same time, HUD will draft a contract to be signed by the Hawaii Public Housing Authority (HPHA) Executive Director relating to use of the homeless prevention funds.

B. If this request is approved, the HPHA will post a Request for Proposals in late March to provide the allowed activities within the three rural counties.

C. Representatives of the three rural county continuum of care, in collaboration with the State Homeless programs, will review the proposals submitted and select nonprofit providers to execute the program.

D. The HPHA would then contract with the selected nonprofit providers to Provide homeless prevention rapid re-housing in each of the rural counties.

III. RECOMMENDATION

That the HPHA Board of Directors authorize the Executive Director to enter into a contract with the U.S. Department of Housing and Urban Development (HUD) for utilization of Homeless Prevention Rapid Re-Housing funds in Hawaii, Maui, and Kauai.

Reviewed by: Sandra J. Miyoshi, Homeless Programs Branch Administrator_____

Approved by the Executive Director CJ
March 19, 2009

FOR ACTION

SUBJECT: To Authorize the Executive Director to Transition the Kauai Asset Management Project (AMP) 38 from Private Management in West Kauai to State Management (East Kauai)

I. FACTS

A. West Kauai has been managed by private management contractors since 1994 when the Hawaii Housing Authority made an effort to reduce the number of units within the state managed area for greater efficiency and manageability due to the extensive relocation and construction work that resulted from Hurricane Iniki. It also allowed the agency to introduce new management concepts and ideas from the private sector.

B. In 2006, HUD required conversion of all projects to Asset Management Projects (AMP). The island of Kauai is currently made up of one AMP with two management units, East Kauai with 6 projects (1 state funded) for a total of 166 units, and West Kauai with 5 federal projects and a total of 181 units. Due to the total number of units and private management cost, it was determined that it would be cost effective to have AMP 38 managed by State employees, rather than contracted out.

C. It was planned for the State to take over the management of West Kauai in 2007, however, the staffing for the area was not completed in time and a short term contract was issued. The private management companies were informed that the basis for the short term contract was to allow time to transition back to State-managed operations.

D. Management, Inc. is the current contractor and their contract will expire on June 30, 2009. The current annual contract cost for salaries, benefits, insurance and management fees is $454,368.36.

II. DISCUSSION

A. The proposed staffing to be added to the AMP would include the following positions and the estimated cost is $340,667.

Additional Positions:

1) Deputy Manager
2) Public Housing Specialist II
3) Building Maintenance Worker I
4) Building Maintenance Worker I
5) Building Maintenance Helper
6) General Laborer

B. The general staffing ratio guideline used by HPHA is:

1 Administrative Staff for 75 units
1 Maintenance Staff for 35 units

The six additional positions for the West side of the island would bring the West side total staff ratio for AMP 38 to the following (181 units):

2 Administrative Staff = 1 per 90 units

4 Maintenance Staff = 1 per 45 units

The total staff ratio for the East side of the island will be the following (166 units):

5 Administrative Staff = 1 per 32 units
5 Maintenance Staff = 1 per 32 units

The total staff ratio for AMP 38 for Kauai is as follows (347 units):

7 Administrative Staff = 1 per 50 units
9 Maintenance Staff = 1 per 39 units

. The ratio does not include 3 tenant aide positions (1 administrative; 2 maintenance) which are part-time (19 hour) positions promoting self sufficiency for residents.

C. AMP 38 (Kauai) consists of 11 housing projects scattered from Kilauea to Kekaha in the Federal and State Low Rent programs for a total of 347 units and the administration of the Rent Supplement Program for Kauai. Although the total unit count is low, AMP 38 is required to maintain approximately 73 separate buildings and an extraordinary amount of common areas. Most of the buildings throughout Kauai are low-density duplexes in line with the rural nature of the community. Even with projects spread out, the Kauai maintenance staff ratio is within HPHA guidelines.

D. Kauai requires more administrative staff than the HPHA guidelines, however, because all neighbor islands have additional functions and responsibilities which are not typical for the Oahu AMPs (which are served by the Central Office Cost Center).

East Kauai serves as the primary administrative office for Kauai. Two of the Administrative Staff positions for East Kauai will service the entire island assisting with application screening to fill vacant units and a work order clerk position that will take all incoming work order requests from residents and staff. The East side will also perform contractual and purchase order functions for the entire island.

The proposed staffing ratio is equivalent to the current staffing ratio of the private management contractor while saving the HPHA $113,701.

East Kauai unit at AMP 38 functions include:

<u>Application Processing</u>:

- Unlike other Oahu AMPs, the Kauai office processes applications for the Federal Public Housing Program, the State Public Housing Program and the State Rent Supplement Program (RSP) on Kauai.
- Approximately 65 applications for various programs are received and processed each month.
- The East Kauai office completes previous tenancy screening for all applicants to determine suitability.
- The East Kauai office conducts marketing for the various programs whenever applicant counts are low. Kauai circulates newsletters; conducts meetings with various partners/agencies and connects with the larger Kauai employers. Some employers have inserted informational fliers with their employee's paychecks about our housing programs.
- East Kauai staff conduct outreach and provide training sessions with Kauai partners (KEO, DHS, QLCC, Alu Like, etc.) whenever significant changes to programs occur.

- The East Kauai office has minimized vacancy loss days by maintaining a clean, up-to-date waitlist.

Rent Supplement Program (RSP):

- East Kauai staff process and lease up all the applicants on the RSP waitlist.
- East Kauai staff conducts annual RSP unit inspections.

Purchasing:

- East Kauai purchases all of its equipment and supplies, with the exception of the appliances. Unlike Oahu AMPs, Kauai is unable to requisition supplies from Central Stores, with the exception of State/HPHA printed forms.

C. The Kauai staff holds monthly meetings in nearly all of its housing projects. These meetings, although time consuming, have proved to improve communication between management and residents. Staff works with the resident associations to develop specific annual goals and activities as a corroborative effort which has proven to be effective.

G. The Kauai staff also circulates newsletters, which is another collaborative effort with the resident associations, as an inexpensive but effective way to communicate with the residents and to promote community building.

H. Attachment C is a map of the island of Kauai showing where the projects are located.

III. RECOMMENDATION

That the Board of Directors approve the transition to State Management of AMP 38 and to authorize the Executive Director to undertake all tasks necessary to effectuate the purposes of this For Action.

Attachments: Attachment A – Contractor Price Proposal
Attachment B – AMP 38 Proposed Additional Staffing
Attachment C – Map of the island of Kauai

Prepared by: Sandra Kouchi, AMP 38 Manager SF for SK
Glori Inafuku, Housing Compliance and Evaluation Specialist SF for GI

Reviewed by: Stephanie Fo, Property Management and Maintenance Services Branch Chief SF

Approved by the Executive Director _____
March 19, 2009

FOR ACTION

SUBJECT: To Authorize the Executive Director to Continue to Rent Roof Top Space on Hawaii Public Housing Authority's Public Housing Facilities for Wireless Phone Antenna and Other Communications Facilities

I. FACTS

A. Beginning in 1995, the Hawaii Public Housing Authority (HPHA), formerly known as Hawaii Housing Authority (HHA), began to issue Rooftop Site Nonexclusive License to Use Agreements to various wireless phone companies to install antenna facilities at various housing projects.

B. HPHA currently has ten active Agreements with various wireless phone providers which generates a total of approximately $130,000 in annual revenues.

C. Existing wireless phone providers have either requested rental extensions or have indicated that they would like to extend their agreements.

D. HPHA has from time to time received inquiries from other providers for new sites.

II. DISCUSSION

A. The U.S. Department of Housing and Urban Development (HUD) had required HPHA to convert its License to Use Agreements to Rental Agreements.

B. HPHA will require the wireless providers to hold resident meetings to provide information on the antenna facilities before executing any renewals or new agreements.

C. The American Cancer Society's Question and Answer posting on its web site indicates that cell phone antennas or towers are unlikely to cause cancer. It also indicates that there is no evidence that cell phone towers cause any other health problems (see Exhibit A).

D. The U.S. Food and Drug Administration (FDA) shares responsibilities for cell phones with the Federal Communications Commission (FCC). The FCC certifies wireless devices and all phones that are sold in the United States must comply with FCC guidelines on Radio Frequency (RF) exposure. The FCC relies on the FDA and other health agencies on health and safety related questions about cell phones. On its web site, the FDA states that the FCC also regulates cell phone base stations. It also states that the base stations operate at a higher power than cell phones, but RF exposures people experience from the base station antennas are typically much lower than cell phones because the antennas are mounted on towers or building structures and are thus substantially farther away from the public (see Exhibit B).

E. The FCC regulates RF radiation emitted by cell phone antennas and issues guidelines for human exposure to RF (see Exhibit C). The FCC guidelines and methods for evaluating the environmental effects of RF are revised as scientific knowledge in the area has advanced. The FCC has a

commitment to continue to monitor developments related to the biological effects of RF energy and has requested that concerned parties should bring any additional scientific evidence to the commission's attention for possible rulemaking.

F. The proposed Non-Exclusive Rental Agreement for Rooftop Space (see Exhibit D) includes language that addresses some of the issues previously raised by Board members such as:

1. Indemnification is addressed in Sections 13 and 16.
2. Protection of HPHA property is addressed in Sections 8, 9(c), 10(a), 10(c) and 10(h).

III. RECOMMENDATION

That the HPHA Board of Directors authorize the Executive Director to continue to rent roof top space on HPHA's public housing facilities for wireless phone antenna and other communications facilities.

Attachments

Prepared by: Michael J. Hee, Private Management Contract Section Chief _____

Reviewed by: Stephanie Fo, Property Management & Maintenance Services Branch Chief _____

American Cancer Society

Who is at Risk?

print
close

Cellular Phone Towers

What Are Cellular Phone Towers?

The widespread use of cellular phones has led to the placement of cellular phone towers in many communities. These towers, also called "base stations," consist of radios, computerized switching equipment, and antennas that receive and transmit radiofrequency (RF) signals.

When a person makes a cellular phone call, a signal is sent from the phone's antenna to the base station antenna. The base station responds to this signal by assigning it an available radiofrequency channel. Transmission and reception of these radio signals transfer the voice information to the base station. Next, the voice signals are sent to a switching center, which transfers the call to its destination. For additional information on the phones themselves, please see the American Cancer Society document, "Cellular Phones."

Cellular phone towers are usually mounted either on top or on the side of existing structures, such as trees, water tanks, or tall buildings. The antennas need to be located high enough so they can adequately cover the area. Base stations usually range in height from 150-270 feet.

Cellular phones operate at the radiofrequency (RF) part of the electromagnetic spectrum. This is non-ionizing radiation. Other examples of the non-ionizing part of the electromagnetic spectrum include AM and FM radio waves, microwaves, and infrared waves from heat lamps. Unlike x-rays and gamma rays (which are examples of ionizing radiation), radio waves have too little energy to break the bonds that hold molecules (such as DNA) in cells together. Similarly, since RF of this frequency contains relatively low energy, it does not enter tissues. At very high levels of exposure, RF can cause warming of tissues, much as a heat lamp does. The wavelength of cell phone waves is about one foot and the frequency is approximately 800 to 900 MHz, although newer models may use higher frequencies up to 2,200 MHz.

How Are People Exposed to Radiofrequency Energy From Cellular Phone Towers?

As people use cellular phones to make phone calls, signals are transmitted back and forth to the base station. The radio waves produced at the base station are emitted into the environment, where people can be exposed.

The energy from a cellular phone antenna, like that of other telecommunication antennas, is directed toward the horizon (parallel to the ground), with some downward scatter. Base station antennas use higher

power levels than other types of land-mobile antennas, but much lower levels than radio and television broadcast stations. The power density decreases with increasing distance from the antenna. As a result, the level of exposure to radio waves at ground level is very low compared to the level close to the antenna.

Public exposure to radio waves from cellular phone antennas is slight for several reasons. The power levels are relatively low, the antennas are mounted at high above ground level, and the signals are transmitted intermittently, rather than constantly.

Agencies such as the National Council on Radiation Protections and Measurements, the International Radiation Protection Association, the Institute of Electrical and Electronics Engineers, and the American National Standards Institute, have established guidelines for exposure to RF radiation originating from cellular communications base stations. These guidelines were designed to protect workers, as well as the public, from potentially harmful radio frequency. The recommended exposure limits are in the range of .41-.45 milliwatts per square centimeter (mW/cm2) for cellular radiofrequencies.

Exposures that exceed these recommended standards can sometimes be encountered on the rooftops of buildings where base stations are mounted. If this is the case, access to these areas should be limited. The power density inside buildings where a base station is mounted is typically 10 to 100 times lower than the level outside depending on the construction materials of the building. Wood or cement block reduces the exposure level of RF radiation by a factor of about ten. The power density behind an antenna is hundreds to thousands of times lower than in front. Therefore, if an antenna is mounted on the side of a building, the exposure level in the room directly behind the wall is typically well below the recommended exposure limits.

Do Cellular Phone Towers Cause Cancer?

Humans generate electromagnetic fields internally as well as externally. The simple collision between 2 molecules is an electrical event. Since there is electrical activity inside the human body, the question arises as to whether radio waves emitted by cellular phone towers can influence cell function, and in particular whether they can cause cancer.

However, several theoretical considerations suggest that cellular phone towers are unlikely to cause cancer.

First, the energy level of radio waves is relatively low. Electromagnetic energy comes in "packages" that are referred to as photons. Photon energy is measured in electron volts (eV), the energy gained by an electron after accelerating over 1 volt. The energy in the photons depends directly on the frequency, and decreases as one moves down the electromagnetic spectrum. X-rays have about 1,000 eV of energy, while the photon energy of radio waves from cellular phone towers is about one millionth of an eV, not enough to alter molecules in the body.

A second issue has to do with wavelength. Radio waves have a wavelength of approximately 1 foot in air, and about 2 inches in body tissue. As a result, RF radiation can only be concentrated to about an inch or two in size. This makes it unlikely that the energy from radio waves could be concentrated on a small bit of tissue, affecting individual cells.

A third issue has to do with the magnitude of exposure. Measurements taken around typical cellular phone towers show ground level power densities well below the recommended limits. Moreover, public exposure near cell phone towers is not significantly different than background levels of RF radiation in urban areas from other sources, such as radio and television broadcast stations.

For these reasons, cell phone antennas or towers are unlikely to cause cancer.

What Does the Epidemiologic Evidence Say?

No human studies have focused specifically on cellular phone towers or even on radio waves more generally. Several studies have looked at the effects of radio waves and microwaves combined; these have generally not shown any increase in cancer, except for a US Air Force study that suggested an increase in brain tumors in association with radiofrequency/microwave exposure.

What Does the Animal Evidence Say?

A number of animal studies have been conducted, generally showing no carcinogenic (cancer-causing) effect of radio waves. Several experiments have used exposure levels that cause a rise in tissue temperature, and even in these studies, there was no increase in DNA mutations or in cancer. A recent review concluded that: "The scientific evidence indicates that exposure to radiofrequency radiation fields is not mutagenic and is therefore unlikely to act as an initiator of carcinogenesis."

What Do the Expert Agencies Say?

The expert agencies that usually provide findings on carcinogenicity (whether something can cause cancer) – the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), and the US Environmental Protection Agency (EPA) – have not issued findings on cellular phone towers.

The World Health Organization stated in 1993 that "the epidemiologic and comparative clinical studies do not provide clear evidence of detrimental health effects in humans from exposure to RF fields. Occupational exposure to RF will be at higher levels than that encountered by the general population, and, thus, there is less likelihood of health effects in the general population as a whole."

The US Food and Drug Administration (FDA) offers the following information to individuals concerned about the safety of cellular phone towers (also known as wireless telephone base stations):

> The electromagnetic RF signals transmitted from base station antennas stations travel toward the horizon in relatively narrow paths. For example, the radiation pattern for an antenna array mounted on a tower can be likened to a thin pancake centered around the antenna system. The individual pattern for a single array of sector antennas is wedge-shaped, like a piece of pie. As with all forms of electromagnetic energy, the power decreases rapidly as one moves away from the antenna. Therefore, RF exposure on the ground is much less than exposure very close to the antenna and in

the path of the transmitted radio signal. In fact, ground-level exposure from such antennas is typically thousands of times less than the exposure levels recommended as safe by expert organizations. So exposure to nearby residents would be well within safety margins.

Cellular and PCS (Personal Communications Service) base stations in the United States are required to comply with limits for exposure recommended by expert organizations and endorsed by government agencies responsible for health and safety. Measurements made near cellular and PCS base station antennas mounted on towers have confirmed that ground-level exposures are typically thousands of times less than the exposure limits adopted by the FCC (Federal Communications Commission). In fact, in order to be exposed to levels at or near the FCC limits for cellular or PCS frequencies an individual would essentially have to remain in the main transmitted radio signal (at the height of the antenna) and within a few feet from the antenna. This is, of course, very unlikely to occur.

When cellular and PCS antennas are mounted on rooftops, RF levels on that roof or on others near by would probably be greater than those typically encountered on the ground. However, exposure levels approaching or exceeding safety guidelines should be encountered only very close to or directly in front of the antennas. In addition, for sector-type antennas, typically used for such rooftop base stations, RF levels to the side and in back of these antennas are insignificant. General guidelines on antenna installations and circumstances that might give rise to a concern about a facility's conformance with FCC regulations can be found in A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance. This Guide can be accessed on the Internet at: www.fcc.gov/oet/rfsafety.

Do Cellular Phone Towers Cause Any Other Health Problems?

While high levels of radiofrequency waves can cause a warming of tissues, cellular phone towers do not yield exposure at levels sufficient to cause this effect. There is no evidence in published scientific reports that cell phone towers cause any other health problems.

What Do I Do If I've Been Exposed to Cellular Phone Towers?

As noted above, cell phone towers pose little risk under ordinary conditions. There is no test to measure whether you have been exposed to RF radiation from cellular phone towers. However, if there is a cellular phone tower mounted near your home or office, you can ask a government agency or private firm to measure the radiofrequency field strength near the tower to ensure that it is within the acceptable range. If you have additional health concerns, please consult your doctor.

The Bottom Line...

Cellular phone towers, like cellular phones themselves, are a relatively new technology, and we do not yet have full information on health effects. In particular, not enough time has elapsed to permit epidemiologic studies.

There are some theoretical reasons why cellular phone towers would not be expected to increase cancer risk, and animal studies of RF have not suggested a risk of cancer. People who are concerned can ask for measurements of RF near cellular phone towers to be sure exposures do not exceed recommended limits.

Additional Resources

National Organizations and Web Sites

The following organizations can provide additional information and resources.*

Federal Communications Commission
RF Safety Program, Office of Engineering and Technology, 2006
Internet Address: www.fcc.gov/oet/rfsafety/

Food and Drug Administration
Cell Phone Facts: Consumer Information on Wireless Phones, 2005
Internet Address: www.fda.gov/cellphones/

National Institute of Environmental Health Sciences
Internet Address: www.niehs.nih.gov/external/faq/cellular.htm

World Health Organization
Electromagnetic fields and public health: extremely low frequency fields and cancer. 2001.
Internet Address: www.who.int/mediacentre/factsheets/fs263/en/

** Inclusion on this list does not imply endorsement by the American Cancer Society*

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NCRP, 1986, National Council on Radiation Protection. Biological effects and exposure criteria for radiofrequency electromagnetic fields. Report 86, (Bethesda, MD: National Council on Radiation Protection and Measurements) pp. 1-382.

OET: Office of Engineering and Technology, Bulletin Number 56 (Third Edition January 1989). Questions and Answers About the Biological Effects and Potential Hazards of Radiofrequency Radiation. http://www.fcc.gov/oet/info/documents/bulletins/Welcome.html

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Valberg PA. Radio frequency radiation (RFR): the nature of exposure and carcinogenic potential. *Cancer Causes and Control* 1997;8:323-332.

World Health Organization (WHO). Environmental Health Criteria 137: *Electromagnetic Fields* (300Hz to 300 GHz). Geneva, Switzerland: WHO, 1993:1-290. A fact sheet based on this volume can be found at http://www.who.int/inf-fs/en/fact183.html.

Revised: 01/31/2006

Cell Phones

Under the law, FDA does not review the safety of radiation-emitting consumer products such as cell phones and similar wireless devices before they can be sold, as it does with new drugs or medical devices. However, FDA does have the authority to take action if cell phones are shown to emit radiofrequency energy (RF) at a level that is hazardous to the user. In such a case, FDA could require cell phone manufacturers to notify users of the health hazard and to repair, replace or recall the phones so that the hazard no longer exists.

Interagency Working Group

FDA belongs to the Radiofrequency Interagency Work Group. The federal agencies in this group have responsibility for different aspects of RF safety and work to ensure coordinated efforts at the federal level. The other agencies in this group are:

- National Institute for Occupational Safety and Health
- Environmental Protection Agency
- Federal Communications Commission
- Occupational Safety and Health Administration
- National Telecommunications and Information Administration

Federal Communications Commission

FDA shares regulatory responsibilities for cell phones with the Federal Communications Commission (FCC). FCC certifies wireless devices, and all phones that are sold in the United States must comply with FCC guidelines on RF exposure. FCC relies on the FDA and other health agencies on health and safety related questions about cell phones.

FCC also regulates cell phone base stations. These base stations operate at higher power than cell phones. The RF exposures people experience from base stations are typically much lower than from cell phones because base station antennas are mounted on towers or other building structures and are thus substantially farther away from the public. Both cell phones and base stations are required to comply with FCC RF exposure guidelines.

International Workgroup

For the past several years, delegations from Japan, Korea, the European Union, Australia, China, the World Health Organization, and the United States have met to discuss health concerns for wireless telecommunications. The purpose of these workshops has been to discuss scientific issues related to RF exposure from wireless communications technology from an international perspective. Specific topics addressed have included:

- health effects of emerging wireless technologies
- recent biological research
- standards development
- prospects for international collaboration related to the safety of wireless telecommunication devices.

Related Links

- Federal Communications Commission
- Radiofrequency Safety
- Do Not Call registry and cell phones

Updated October 14, 2008

STATEMENT OF
CHAIRMAN MICHAEL K. POWELL

RE: In the Matter of Proposed Changes in the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields

Today's action takes an important step in updating our radiofrequency environmental exposure rules to reflect technological change. Our action is part of the Commission's Environmental and Historic Preservation Action Plan that I announced earlier this month. The goal of the plan is to improve our ability to fulfill our obligations under the National Environmental Protection Act, while at the same time accelerating the process of deploying necessary communications infrastructure. Integral to this effort is ensuring that our radiofrequency exposure limits keep pace with the rapid innovation in the spectrum-based services marketplace. Our current rules date back to the mid-1990s. Since our current rules were adopted in the mid-1990s, it has become apparent that certain provisions may warrant further revision to clarify the responsibilities of our licensees and to ensure compliance with the FCC limits in a more practical, reasonable and efficient manner. This NPRM makes several proposals to accomplish that goal.

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Proposed Changes in the Commission's Rules	)	
Regarding Human Exposure to	)	ET Docket No. 03-137
Radiofrequency Electromagnetic Fields	)	

NOTICE OF PROPOSED RULE MAKING

Adopted: June 12, 2003 **Released:** June 26, 2003

Comment Date: 90 days from publication in Federal Register
Reply Comment Date: 120 days from publication in Federal Register

By the Commission: Chairman Powell issuing a statement.

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APPENDIX A: PROPOSED RULES .....

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I. INTRODUCTION

1. By this action, we propose to amend Parts 1 and 2 of our rules relating to the compliance of FCC-regulated transmitters and facilities with our guidelines for human exposure to radiofrequency (RF) energy. Our proposals are intended to ensure that the public is appropriately protected from any potential adverse effects from RF exposure as provided by the exposure limits in our rules, while avoiding any unnecessary burden in complying with our RF exposure rules. The Commission originally adopted rules for protecting workers and members of the public from potentially harmful exposure to RF energy almost twentyseveral years ago, and we have, on occasion, updated our rules as more relevant information has become available. The potentially harmful effects of RF energy are well characterized as the result of excessive heating of biological tissue. While transmitters and devices regulated by the Commission typically would not result in levels of exposure high enough to cause such injury, it is nevertheless important to ensure that human exposures are maintained well below levels that are suspected to be even potentially harmful. To achieve this, we are proposing modifications in those rules to provide more efficient, practical, and consistent application of compliance procedures.. More specifically, we are proposing to: 1) revise and harmonize the criteria for determining whether transmitters used in a number of services are subject to routine evaluation for compliance with the RF exposure limits or are categorically excluded from such evaluations; 2) clarify the procedures for evaluating RF exposure from mobile and portable devices, including modular transmitters; 3) add more specific definitions and compliance procedures relating to RF exposure of workers (occupational exposure); 4) develop consistent labeling requirements to ensure the compliance of certain types of RF devices; 5) consider certain issues related to spatial averaging of exposure, including how to account for localized exposures whose spatial peak measurements might exceed the exposure limits; 6) make certain changes in our rules to eliminate inappropriate references or to make evaluation procedures consistent and complete; and 7) provide a transition period for the implementation of any new rules. We invite comment and suggestions on these proposals and on certain additional issues related to compliance with RF guidelines. If alternatives are suggested, they should be justified with detailed documentation, data or observations relevant to potential human exposure from RF emissions.

II. BACKGROUND

2. The National Environmental Policy Act of 1969 (NEPA) requires agencies of the Federal Government to evaluate the effects of their actions on the quality of the human environment.[1] To meet its responsibilities under NEPA, the Commission has adopted requirements for evaluating the environmental impact of its actions. One of several environmental factors addressed by these requirements is human exposure to RF energy emitted by FCC-regulated transmitters and facilities.[2]

[1] National Environmental Policy Act of 1969, as amended, 42 U.S.C. §§ 4321-4335.

[2] *See* 47 CFR § 1.1307(b).
(continued....)

3. In its 1996 *Report and Order* and its 1997 *Second Memorandum Opinion and Order* in ET Docket 93-62,[3] the Commission established guidelines for evaluating the environmental effects of radiofrequency radiation. These guidelines include limits for Maximum Permissible Exposure (MPE) to RF radiation, including limits for both whole-body and partial-body exposures, based on criteria published by the National Council on Radiation Protection and Measurements (NCRP) and by the American National Standards Institute/Institute of Electrical and Electronics Engineers, Inc. (ANSI/IEEE). The *Report and Order* also modified the Commission's policy on categorical exclusions, which relieve certain radio services and transmitters from requirements for routine environmental evaluation for RF exposure.

4. Since adoption and implementation of these guidelines, it has become apparent that additional transmitters and devices can be categorically excluded from routine evaluation for RF compliance, that some transmitters and devices are inappropriately excluded, and that certain exclusion criteria can be harmonized to govern similar facilities in different services. In addition, it appears that certain aspects of our rules may require revision to clarify the responsibilities of our licensees and grantees and to ensure compliance with the FCC limits in a more practical, consistent and efficient manner.

5. This Notice makes several proposals to accomplish these goals, and we are requesting comment on all of our proposals. These proposals are related only to the Commission's implementation of procedures for compliance with the adopted limits for human exposure from fixed, mobile and portable transmitters regulated by the Commission. This Notice does not invite comment regarding the exposure limits themselves, which have been developed in conjunction with other agencies and organizations that have primary expertise in health and safety.[4]

III. PROPOSED REVISIONS

A. Routine Evaluation and Categorical Exclusion of Transmitters, Facilities and Operations

6. The Commission's environmental rules identify particular categories of existing or proposed transmitting facilities for which licensees and applicants are required to conduct routine environmental evaluation to determine whether these facilities comply with our RF guidelines. All other transmitting facilities are "categorically excluded" from requirements for

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[3] *Report and Order*, ET Docket 93-62 (Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation), 11 FCC Rcd 15123 (1996); *Second Memorandum Opinion and Order and Notice of Proposed Rule Making*, ET Docket 93-62 (WT Docket 97-192), 12 FCC Rcd 13494 (1997).

[4] We note that a petition for rule making to revise our RF exposure guidelines was dismissed in 2001. Letter from Bruce A. Franca, Acting Chief of the Commission's Office of Engineering and Technology, to James R. Hobson, EMR Network, December 11, 2001. A petition for reconsideration of that dismissal is pending.

conducting such routine evaluations because we have found that they offer negligible potential for causing exposures in excess of our guidelines based on factors such as operating power and human accessibility. Accessibility is usually related to such factors as the height above ground of an antenna or whether an antenna is mounted on a tower or on a rooftop. After several years of experience in analyzing RF exposure potential from various sources, we now believe that certain modifications are needed to make our RF exposure rules more consistent across service categories, to ensure that RF exposure evaluations are not required in circumstances where there is no risk of harmful exposure, and to ensure that the potential for exposure is not overlooked in certain cases where there may be some risk of RF exposure at levels that exceed our guidelines.

7. In this regard, we believe that the current environmental rules are inconsistent with regard to the treatment of accessibility or separation distance for certain fixed transmitting facilities.[5] In some instances, transmitter powers and separation distances are specified and in others only power levels are specified. For example, the factors currently determining whether cellular and broadband PCS base station antennas are subject to routine evaluation or are categorically excluded from evaluation are different dependent upon whether the transmitting antenna is located on a tower or mounted on a building such as on a rooftop. In the case of tower-mounted cellular transmitting antennas, evaluation of RF exposure is currently required only if the height above ground is less than 10 meters *and* the total transmitter power is greater than 1000 watts effective radiated power (ERP). On the other hand, for building-mounted cellular transmitting antennas, evaluation is now required whenever the total transmitter power exceeds 1000 watts (ERP), regardless of height above ground or separation distance from publicly accessible areas. The requirements for broadband PCS are similar except that the power level is 2000 watts (ERP) due to the difference in allowed exposure limits for PCS frequencies.

8. We believe that it is important to consider both total transmitter power and separation distance in our RF exposure requirements and exclusions. Proximity is a significant factor in determining whether exposures could occur in excess of our guidelines. We note that public access may be more likely in the immediate vicinity of building-mounted and roof-top antennas than for tower-mounted antennas. We therefore now believe that it is important to include separation distance criteria in our rules for all transmitting antennas, including building-mounted antennas. We also propose to change the current "height above ground" requirement to a more general separation distance requirement. We tentatively find that the current "height above ground" separation requirement may not be appropriate in all cases since it does not take into account accessible locations that may be adjacent to the transmitting antenna, such as where a tower-mounted antenna is installed next to a building. While such facilities may not be typical, we are concerned that these situations could present a potential for public exposure to RF emissions and should not be categorically excluded from evaluation.

[5] In this context, we are using the term "fixed" to refer to those transmitters referenced in Table 1 of 47 CFR §1.1307(b) that are not considered "mobile" or "portable" as defined in 47 CFR §2.1091 and §2.1093. This definition includes transmitters that are physically secured at one location on a temporary basis. An example of such a case would be a mobile wireless base station used to accommodate increased call volume at a special event.

9. We are also concerned that the current separation distances and power levels contained in the rules to trigger routine evaluation may not be appropriate in all situations. Under the current requirements, a cellular transmitting facility with a transmitting antenna less than 10 meters high would be categorically excluded and not subject to routine evaluation for RF exposure even if it operates at power levels that approach the threshold levels for routine RF evaluation, for example, 999 watts. Such exclusion does not appear warranted, and we propose to amend our rules to eliminate this situation by providing for a conservative range of power and separation distances, as further detailed below.

10. Finally, we believe that requirements for routine evaluation and categorical exclusion should be more consistent across services. We note that the current rules in some instances are inconsistent with regard to the treatment of certain services with similar operating and exposure characteristics. For example, the rules require routine evaluation in the case of broadband PCS if the total power is more than 2000 watts (ERP) (3280 watts EIRP). Other services that operate in frequency bands above 1.5 GHz where the RF guidelines are similar to those for PCS, such as the Wireless Communications Service at 2.3 GHz, are subject to routine evaluation if the total power is more than 1640 watts EIRP.[6] We believe that the requirements for routine evaluation and categorical exclusion should be consistent across similar services and that, as proposed below, the same power levels and separation distances should apply.

11. We are proposing to amend the rules for required routine evaluations and categorical exclusions for fixed antennas to address the above concerns. First, we propose that routine evaluation would be required for fixed transmitting facilities where the separation distance from publicly accessible areas is less than 3 meters, regardless of operating frequency or power, with the exception of transmitters in the categories discussed below in paragraph 14. Second, we propose that routine evaluation would be required for facilities where the separation distance from publicly accessible areas is less than 10 meters and the transmitting power is 100 watts ERP or greater for services operating at frequencies below 1.5 GHz or 200 watts ERP or greater for services operating at frequencies at 1.5 GHz and above. Third, we propose that fixed transmitting facilities be categorically excluded from routine evaluation if the separation distance to publicly accessible areas is 10 meters or greater. The above proposed separation distances and power levels were derived taking into account the current RF safety guidelines and the technical rules governing the affected transmitting facilities contained in the Commission's rules. Separation distance in this context is defined as the minimum distance from the radiating structure of the transmitting antenna in any direction to any area that is accessible to a worker or to a member of the general public. These proposed changes would apply to transmitting facilities in the Multipoint Distribution Service (Subpart K of Part 21), the Cellular Radiotelephone Service (Subpart H of Part 22), the Paging and Radiotelephone Service (Subpart E of Part 22), the Personal Communications Services (Part 24), the Wireless

[6] In addition, we note that the present rules include reference to categories in the General Wireless Communications Service (GWCS) operating at 4.6 GHz. However, this service is no longer authorized, and we are proposing to delete all references to this service from 47 CFR §1.1307(b) as well as from 47 CFR §2.1091 and §2.1093 (the rule parts dealing with compliance with mobile and portable devices). Also, in this regard, a recent Commission decision also requires evaluation of mobile and portable devices operating in the 4.9 GHz band (*see Memorandum Opinion and Order and Third Report and Order*, WT Docket 00-32).

Communications Service (Part 27), the Experimental, Auxiliary, and Special Broadcast and Other Program Distributional Services (Subpart I of Part 74), the Private Land Mobile Radio Services Paging Operations (Part 90), the Private Land Mobile Radio Services Specialized Mobile Radio (Part 90), the Local Multipoint Distribution Service (Subpart L of Part 101), and the 24 GHz Service and Digital Electronic Message Service (Subpart G of Part 101). We also propose to apply these requirements to terrestrial repeater stations in the Satellite Digital Audio Radio Service (SDARS) authorized under Part 25. The proposed changes to Section 1.1307(b), Table 1, are shown in Appendix A.

12. For transmitters authorized under the Experimental Radio Service (Part 5) and under Subparts A, G, and L of Part 74, the rules currently require routine evaluation whenever the operating power of the transmitting facility is greater than 100 W ERP (164 W EIRP).[7] To ensure that categorically excluded transmitters operating at less than this power level do not pose a risk of causing exposures exceeding our limits, we are proposing to add a separation criterion to the rules for these transmitters. The most restrictive limit for general population/uncontrolled exposure to RF energy is 0.2 mW/cm^2 in the frequency band of 30 MHz – 300 MHz. Theoretical calculations indicate that this exposure level could be exceeded within a radius of approximately 2 to 3 meters for a 100 W ERP (164 W EIRP) transmitter. In the interest of simplicity and practicality in determining categorical exclusions for these services, we propose to revise the categorical exclusions for Part 5 and Part 74 (Subparts A, G and L) to specify that routine evaluation is required if radiated power is 100 W ERP (164 W EIRP) or more *or* if members of the general public can approach the radiating structure of the antenna at a distance closer than 3 meters. So if the separation distance is 3 meters or more, and the radiated power is less than 100 W ERP, a transmitter would be categorically excluded from routine evaluation under this proposed rule. We seek comment on this separation distance, and on whether multiple, frequency-dependent separation distances should be introduced into our rules for these services. Parties proposing alternative or multiple separation distances should provide the analytical basis for their propositions.

13. In the case of operations governed by Part 25 (Satellite Communications), Part 73 (Radio Broadcast Services) and Part 80 (Stations in the Maritime Services - "ship earth stations" only), such facilities are now subject to routine evaluation for compliance with the exposure limits. With the exception of Part 73, Subpart G, which governs low power FM (LPFM) broadcast stations, we propose to leave these requirements unchanged at this time, in view of the generally high power levels of Part 73 facilities and the high gain antennas and potential for proximity for Part 25 transmitters and Part 80 ship earth station transmitters. Commenting parties may address, however, whether we should provide for some categorical exclusion for these facilities and under what circumstances exclusions should be provided. Such comments should include the analytical basis for any specific proposal. Because LPFM stations operate at power levels that cannot exceed 100 watts ERP, we propose a categorical exclusion threshold for these stations in cases where a separation distance of 3 meters is maintained. We seek

[7] 47 CFR § 1.1307(b) Table 1.

comment on this proposed exclusion for LPFM stations, including whether we should adopt a separate distance criterion for 10 watt LPFM stations.

14. The above proposals would require routine evaluation of transmitters that operate within 3 meters of publicly accessible areas. However, we believe it is appropriate also to consider establishing a categorical exclusion for certain very low-power fixed transmitters, such as indoor "micro" base stations and similar fixed devices. This exclusion would avoid unnecessary evaluation of such transmitters under the general rule for transmitters operating within 3 meters of publicly accessible areas. Accordingly, for devices mounted in such a way that persons are normally not closer than 20 cm from any part of the radiating structure, we are proposing a power threshold for categorical exclusion of 1.5 W ERP for transmitters operating at frequencies at or below 1.5 GHz and 3 W ERP for fixed transmitters operating at frequencies above 1.5 GHz. These values are consistent with the power exclusion thresholds we already have in place for mobile devices.[8] Transmitters operating below these levels would not be subject to routine evaluation to determine compliance with our RF exposure limits.

15. We believe that these proposals will ensure that our RF exposure rules and categorical exclusions are more consistently applied across all service categories. The proposed changes attempt to strike an appropriate balance of eliminating RF exposure evaluations in circumstances where there is little risk of harmful exposure, and ensuring that evaluations are carried out and that the potential for exposure is not overlooked in cases where there may be some risk of RF exposure at levels that exceed our guidelines. We recognize that the above separation distances and power limits were developed using conservative assumptions and that the use of these power levels and distance criteria could result in the requirement for routine evaluation of some installations that are unlikely to exceed the RF exposure guidelines. We tentatively believe that the advantages in simplicity and certainty of this approach outweigh the requirement to conduct these additional evaluations. We seek comment on the power and distance criteria we are proposing, and on whether a different formulation should be used for determining categorical exclusion criteria. Another approach could be to provide a series of power exclusion thresholds for different separation distances, *e.g.*, a power threshold for each meter between 3 and 10 meters, or to specify a formula that relates distance to operating power, based on the appropriate power density exposure level for a particular service or frequency.[9] We also are aware that licensees in some services either are currently offering or intend to offer in the near future fixed wireless services for which customers may self-install subscriber-end transceivers.[10] We seek comment on how best to apply the above parameters in these instances,

[8] These values are based on conservative calculations for exceeding the FCC's limits for maximum permissible exposure (MPE) at a distance of 20 cm. *See* 47 CFR § 2.1091(c). Mobile devices are transmitting devices designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between a transmitter's radiating structure and the body of the user or nearby persons. *See* 47 CFR § 2.1091(b).

[9] For example, for the cellular radio band, power and distance criteria for categorical exclusion could be based on calculations using a far-field equation. This would result in a formulation relating distance to the square root of the total radiated power.

[10] For example, such offerings are being considered in the WCS, MDS/ITFS, cellular, and PCS services (*see Notice* (continued....)

including whether labeling[11] may be considered sufficient to ensure compliance with distance separation requirements, and on whether other approaches may be more appropriate.

16. We also note that where routine evaluation would be required under our proposals, this evaluation would need to consist of only what is necessary to verify that the RF exposure guidelines will not be exceeded. For example, where a directional antenna with maximum power of 100 W ERP or greater is publicly accessible within 10 meters only from outside of the main beam of the antenna, and therefore would expose the public to little or no RF emissions, routine evaluation may consist of no more than verification of this fact. Another alternative would be to write the rule in a manner that categorically excludes antennas that are publicly accessible within the specified distance only outside the main beam. We believe that this alternative would result in a more complicated rule and little, if any, reduced burden on private parties. We seek comment on this analysis.

B. Requirements for Evaluating SAR for Certain Section 15.247 Unlicensed Devices

17. Section 15.247 contains the rules governing the use of spread spectrum transmitters operating in the 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz bands. These unlicensed devices can generally operate at higher power levels than other unlicensed Part 15 devices because they employ spread spectrum technologies that "spread" the energy over a wider bandwidth, thereby reducing the potential for interference. These devices may operate at up to maximum peak output power levels of between 0.125 and 1 watt, depending on frequency and transmitter characteristics.[12] Typical devices authorized under Section 15.247 of the rules include cordless telephones, wireless local area network devices, and wireless computer peripherals. Under our current rules, routine RF exposure evaluation of Specific Absorption Rate (SAR) is not required for devices authorized under Section 15.247. However, the rules do require that these devices be operated in a manner that ensures that the public is not exposed to RF energy in excess of our exposure limits.[13]

18. Given the power levels permitted under Section 15.247, we are concerned that some higher powered Section 15.247 devices, in particular those portable devices that are designed to be used close to a user's body while in operation, such as a cordless telephone, may have a potential for exceeding our SAR guideline limit and therefore should be subject to routine RF evaluation. Accordingly, we propose to require SAR evaluation of consumer devices that are authorized under Section 15.247, and designed for use within 20 cm of the body, if the maximum peak output

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of Proposed Rule Making, WT Docket 03-66).

[11] For a discussion of labeling requirements, see Section III, G, *infra*.

[12] Devices authorized under 47 CFR §15.247 may transmit with up to 1.0 W peak (conducted) output power as allowed by our rules, although most devices authorized to date operate with less power.

[13] 47 CFR § 15.247(b)(4). Specific Absorption Rate (SAR) limits are defined in §1.1310 and §2.1093 of our rules.

power of the device exceeds 100 milliwatts (mW). The 100 mW value is based on our evaluation of those portable devices for which SAR data has been required or requested to be submitted. Specifically, for several years, we have required that cellular telephones and PCS devices be evaluated for SAR, and we have recently examined SAR data from a small sample of devices authorized under Section 15.247 that operate in the 900 MHz and 2400 MHz bands. All of these data suggest that if peak power levels are at or below 100 mW, it would be unlikely that the device would exceed our SAR limit of 1.6 W/kg for consumer devices. We only have limited SAR data for devices at 5.8 GHz and request comment on whether 100 mW or some other value should be used for Section 15.247 unlicensed portable devices that operate at 5 GHz. We believe that this approach will ensure that the public is not exposed in excess of our SAR limits for portable devices authorized under Section 15.247 of the rules.

C. RF Evaluation Requirements for Transmitter Modules

19. An increasingly important issue with respect to evaluating RF exposure devices concerns modular RF emitters ("transmitter modules") designed to be used in "host" products or in combination with other RF devices. These transmitter modules are increasingly being designed for installation in a variety of consumer electronic products, either as add-on features by the manufacturer or as after-market accessories to be installed by the consumer. Such transmitters are used to provide, for example, wireless headset (speaker and headphone) connections to PCS and cellular radiotelephones; wireless connections to local area networks (LANs) for desktop and laptop computers; and wireless connections to service provider networks for personal digital assistants (PDAs) and other devices. The current Commission requirements and general policies for authorization of Part 15 unlicensed, low-power transmitter modules are described in Public Notice DA 00-1407.[14] However, RF exposure compliance procedures are not described in that Public Notice, and we have received numerous inquiries regarding the requirements for determining compliance with our RF exposure guidelines for these devices.

20. The utility and flexibility of use of such transmitter modules would be greatly reduced if an individual certification were needed for each different use of a given module, particularly in situations where a module or its installation presents no meaningful potential for exposure in excess of our guidelines. We also recognize that manufacturers appear particularly interested regarding parameters under which a module may be approved on a "host-independent" basis, that is, so that it can be used in many different devices without subjecting these devices to new or additional RF exposure evaluation. Accordingly, we seek to gather information aimed at providing rules and guidelines for the approval and safe use of modular transmitters with a minimum of regulatory burden.

General Requirements for Transmitter Modules

21. We propose to base our requirements for evaluation and categorical exclusion of transmitter modules on the power levels of the modules, combined with the installation configurations and situations for which they would be used. While we recognize the benefits of

[14] Public Notice (DA 00-1407), 15 FCC Rcd 25,415 (2000).

modular transmitter design and do not wish to discourage its use or impose unnecessary regulatory burdens on manufacturers, we also remain cognizant of our responsibility to ensure that the public is not exposed to RF energy in excess of our guidelines. In general, we propose to permit the authorization of transmitter modules where they comport with our categorical exclusion requirements or where they have been measured and shown to comply with the RF guidelines and it can be shown that the use of the modular transmitter in additional "host" devices would not result in noncompliance. For example, we would propose to authorize any Section 15.247 unlicensed device as a "transmitter module" provided that the operating configurations and exposure conditions of the host products are identified and the maximum peak conducted output power is 100 mW or less. When a module is approved for any host product configurations and exposure conditions, a host may incorporate multiple modules for simultaneous transmission without additional approval. Since RF energy absorption is frequency dependent, we seek comment on whether the proposed 100 mW threshold is suitable for ensuring compliance at all frequencies. We would also permit transmitters that have been successfully evaluated for compliance to be certified as a Part 15 transmitter module provided it can be shown that compliance can be maintained in any intended application of the transmitter. In this regard, we request comment on what factors should be included in ensuring compliance of the transmitter module in various host devices. For example, we seek comment on whether we should require measurements in a certain number of typical host devices or whether we should condition grant to configurations where the host device is physically similar. Another approach would be to permit the use of approved modules in additional "host" devices under our permissive change rules. For example, a module authorized for operation in a particular host device could be approved for operation in another host as a Class I Permissive Change if the measured SAR values for the module are the same or less when operating in the new host device.[15] Since no filing with the Commission is required for a Class I Permissive Change, such an approach would allow manufacturers to add additional host devices without having to go through lengthy and unnecessary filings and approvals. We seek comment on this option, and on whether we should instead permit such modification only by a Class II Permissive Change, which requires prior approval.[16] We also seek comment on what information should be included in the installation instructions provided with the transmitter module such as minimum separation distances, antenna requirements, etc.

Requirements for "Host-Independent" Transmitter Modules

22. We also believe that developing requirements for permitting transmitter modules in any host device would provide benefits to manufacturers and consumers. At the same time, we recognize that different categories of "host" devices have significantly different operating characteristics that would affect RF compliance evaluation and should be taken into account. We therefore propose to permit host-independent transmitter modules within three broad categories.

[15] *See* 47 C.F.R. § 2.1043 for description of permissive changes.

[16] We note that Class 2 permissive changes can be authorized by Telecommunications Certification Bodies, typically in a matter of days.

23. *Radiotelephones*. For radiotelephones, pagers, and other devices that are used in close proximity to the head or body, we propose that SAR evaluation should not be required subsequent to the addition of any modular transmitter that operates at or below 2 mW (peak radiated or conducted output power). We believe that the addition of such very low power modular transmitters to hand-held phones or devices is unlikely to contribute significantly to the overall SAR level of a device and thus not affect its compliance. Under this proposal, for example, a Bluetooth module could be added to a compliant cellular or PCS phone without the need for re-evaluation or recertification. We seek comment on the applicability of the proposed 2 mW limit across all frequencies. We also seek comment on whether there should be a limit on the number of such modular transmitters that can be added to a compliant hand-held phone or device before a re-evaluation is appropriate.

24. For modular transmitters operating at power levels above 2 mW in a hand-held phone, pager or similar device, we propose that they be evaluated in combination with the host device. If the combination is demonstrated to be in compliance with the SAR limit, we propose that such a demonstration of compliance can then be applied to such modules in similar host devices that have been tested and certified for similar configurations. We seek comment on how to appropriately define such an authorization. We also seek comment on whether the permissible power of a module to be added to a hand-held phone without requiring recertification should be tied to the pre-existing SAR level of the host phone model.

25. *Laptop (Notebook) Computers*. The likelihood of RF exposure due to direct contact with the body is less for laptop portable computers than for hand-held phones, since there is usually some additional space between the transmitting elements and the body. Moreover, the exposure potential varies appreciably depending on the location of the transmit antenna within the computer. Transmit antennas located within the keyboard portion of a laptop have the capacity to be operated close to the body, whereas antennas located on the screen portion can be 20 cm or more distant from any part of the body. As discussed below, we believe that rules should reflect these differences.

26. For transmitting modules that may be added to the keyboard section of a laptop computer, we believe it is unlikely that the SAR level of the combined device would change significantly as long as the peak conducted or radiated power is no more than 10 mW. The available power from such a modular transmitter we believe would be too low to cause significant energy deposition in the body. It is also unlikely, in general, that the transmitter's power would be misdirected toward the body, because this would adversely affect the functionality and operability of the device. Therefore, we propose that any modular RF transmitter designed to be used in the keyboard portion of a laptop computer need not undergo RF exposure analysis if it operates at less than 10 mW (peak radiated power). We also seek comment on whether there should be a limit on the number of such modules or other transmitters that can be added to a laptop computer before evaluation is required.

27. For transmitting modules where the radiating element is to be mounted in the screen portion of a laptop, we believe that the power threshold level for evaluation can be considerably

higher. Accordingly, we propose that for radiators mounted in laptops such that the radiating element will be more than 20 cm from the user's body,[17] a power level up to 200 mW be permitted without requiring an RF evaluation.[18] We believe that such a transmitter can be added to any laptop without raising an issue related to compliance with our limits for RF exposure. We request comment on whether these power thresholds are appropriate at all frequencies and in all laptop applications, and whether there should be some limit on the number of such modules that can be incorporated into a laptop without concern for RF exposure in excess of our limits.

28. *Personal Digital Assistants (PDAs) and Similar Hand-held Devices.* The potential for exposure from modular RF transmitters used in personal digital assistants (PDAs) raises issues similar to those associated with exposure from modules in portable computers and hand-held phones. One significant difference, however, is that today's PDAs are most often used as hand-held devices, not immediately next to the torso of the human body. While the partial-body SAR limit for the head and most of the body is 1.6 W/kg averaged over one gram of tissue, the SAR limit for the extremities, such as the hands, is 4.0 W/kg averaged over ten grams. This means that if a PDA is used exclusively as a hand-held device, evaluation of exposure to the head and other parts of the body is not relevant and the higher exposure limit for extremities applies. However, we are aware that at least some PDAs can be used in the transmit mode while worn on the body, and some have been approved for use as hand-held phones. In those cases, the more restrictive limit of 1.6 W/kg would apply.

29. Accordingly, for transmitting modules that are to be incorporated into a PDA, we propose to use a threshold value of 25 mW as an exclusion threshold for requiring SAR evaluation of hand-held PDAs. This value is two and one-half times the value we proposed for modules in the keyboard section of laptop computers, recognizing that the exposure limit for extremities is two and one-half times the body limit. This limit would apply only if the PDA is used exclusively as a hand-held device.

30. For PDAs that are designed to be used in contact with the head or worn against the body, we propose to use the same 2 mW threshold for additional transmitting modules that we are proposing for modules used in mobile phones. We request comment on whether our approach proposed for PDAs is reasonable, and whether we can distinguish treatment according to the functionality of a particular PDA. We seek comment on whether higher power thresholds might be warranted for SAR evaluation on the basis of extremity exposure. If such proposals are made, we seek comment on appropriate power levels, and any conditions that should be placed on the configuration of PDAs.

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[17] This criterion is based on how the Commission distinguishes between "mobile" and "portable" devices for purposes of RF exposure evaluation. Mobile devices are defined as those designed to be used in such a way that a separation distance of at least 20 cm is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. Portable devices are defined as those designed to be used with separation distances of less than 20 cm. *See* 47 C.F.R. §§2.1091 and 2.1093.

[18] We recognize that this power level is different from those power thresholds currently in effect for categorical exclusion of mobile devices from routine evaluation (*see* 47 CFR §2.1091(c)). However, the existing thresholds were designed for "stand alone" mobile transmitters. The proposed power level would apply to situations where the possible presence of multiple modular transmitters, such as in a laptop computer, suggests that a more conservative power threshold would be needed.

D. Measurement of SAR from Multiple Transmitters

31. Questions have been raised with regard to the procedures for SAR evaluation in devices with multiple transmitters. We first note that when multiple RF transmitters operate simultaneously in a device, they typically use different frequencies. For example, a laptop computer may contain Bluetooth or other transmitters. Evaluation of compliance for such devices is dependent on the specific transmitter frequency.[19] Laboratory SAR measurement techniques require the dielectric properties of tissue-simulating media to follow the same frequency-dependency to correctly measure the SAR. Transmitters operating at different frequencies cannot be evaluated simultaneously, because existing test systems (tissue-simulating media and field probe calibration) can only be configured for a limited frequency range for each measurement. The tissue-simulating liquid used in the head or body model must be changed, depending on the frequency, to accurately reflect the RF energy absorbed by body tissue in that frequency range. As a result, devices with multiple transmitters operating at widely varying frequencies must be evaluated one transmitter at a time.

32. One convenient way to evaluate the SAR of a single device with multiple transmitters using present measurement systems is to add together the SAR values individually obtained for each transmitter in order to estimate the total SAR for a given device. This, however, may overestimate RF exposure if different transmitters generate their maximum exposure at different locations in the body. Since this issue has not been extensively addressed elsewhere, we seek to establish guidelines for evaluating SAR for such devices. In the absence of a better predictive model, we propose to specify that the maximum RF exposure levels of all multiple antennas within a single portable or mobile device that could functionally transmit at the same time be added together in order to determine RF exposure values for the device. We also seek comment on whether it would be appropriate and practical with present SAR measurement systems to sum the SAR values at individual evaluation grid points prior to computing the 1-g average SAR, as opposed to simply summing the 1-g averaged SAR values of each transmitter. We request that commenting parties provide detailed information and supporting documentation regarding any proposals for measuring RF exposure from multiple-transmitter devices. We also are interested in whether transmitters operating simultaneously in close proximity to each other could affect the RF exposure characteristics of each other in a way that might not be reflected in the SAR levels of each transmitter when operating and evaluated independently. We seek comment on the prevalence and predictability of this potential phenomenon.

E. Reference to OET Bulletin 65

33. For purposes of evaluating compliance with the guidelines for localized exposure measured by SAR, the Commission's rules require that portable devices are to be tested or

[19] *See* Supplement C to OET Bulletin 65.

evaluated based on technically acceptable protocols, procedures and standards.[20] Specific guidance on acceptable procedures is provided in a supplement to the FCC's OET Bulletin 65 ("*Supplement C*").[21] Supplement C provides specific direction as to the procedures that are appropriate for analysis of SAR from wireless handsets. The procedures set forth therein are intended to generally reflect procedures for SAR analysis for hand-held phones being developed by a committee of the Institute of Electrical and Electronics Engineers, Inc., (IEEE).[22] Staff from both the FCC and the U.S. Food and Drug Administration (FDA) have been active participants on this committee, and this IEEE recommended practice will represent several years of work by the world's leading experts in this field.

34. To avoid confusion as to what constitutes acceptable procedures for evaluating SAR for portable devices, we are proposing to revise our rules addressing this matter, so that they no longer refer to a specific document, which can become outdated. Rather, we propose to include a more generic reference to Supplement C in the rules, so that as SAR evaluation guidelines are refined by experts, they can be accommodated more quickly by our procedures without waiting for rule amendment. Accordingly, for portable devices, we propose to delete the sentence in Section 2.1093(d)(3) of our rules that refers to IEEE standard C95.3-1991 and refer instead to the most current edition of *Supplement C* to *OET Bulletin 65*, issued by the Commission's Office of Engineering and Technology.[23] For mobile devices, we propose to add a similar reference to Bulletin 65 in the introductory text of Section 2.1091(d). In addition, we propose to amend Section 2.1093 to indicate that computational modeling may be used to demonstrate compliance with the SAR limits only if supported by adequate documentation. This is consistent with section 1.1307(b)(2) of our rules, which provides the Commission with the discretion to request SAR measurement data when a compliance showing is based on computational modeling. We invite comment on these proposals.

35. In a related development, we note that another committee of the IEEE, Subcommittee 4 of Standards Coordinating Committee 28 (SCC28), has adopted a revised SAR limit that would apply to the "pinna" of the human ear.[24] This revised SAR limit is directly relevant to the

[20] 47 CFR § 2.1093(d).

[21] *Supplement C* to *OET Bulletin 65,* first edition (97-01) released August 25, 1997, revised edition (01-01) released June 29, 2001. This document can be downloaded from the Commission's website in either MS Word or Adobe Acrobat .pdf format at: www.fcc.gov/oet/rfsafety.

[22] IEEE Standards Coordinating Committee 34 (SCC34), Subcommittee 2. DRAFT *Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques*. IEEE Standard 1528-200X.

[23] Once the IEEE SCC34 recommended practice for SAR evaluation is completed and officially issued by the IEEE, we expect to consider whether to adopt it, by reference, as the standard practice required for evaluating compliance with the FCC's SAR limits in conjunction with our *Supplement C*. However, the IEEE standard has not yet been officially released by the IEEE.

[24] The pinna is the projecting portion of the external human ear. The revision revises the SAR limit for this part of the body by subjecting it to the relaxed SAR limits applied by the IEEE to parts of the body classified as "extremities."
(continued....)

evaluation of SAR in the human head from hand-held mobile phones. Therefore, we expect to consider adopting this revised SAR limit once it is officially issued by the IEEE, since our current limits for localized SAR are based primarily on IEEE recommendations. Although we are not making a specific proposal at this time regarding this issue, we nevertheless invite comment on what consideration we should give to this revision.

F. Special Considerations for Occupational Use

36. The Commission's RF guidelines incorporate two tiers of exposure limits, one for the general public ("general population/uncontrolled" exposure) and another, less restrictive, tier of limits for workers ("occupational/controlled" exposures).[25] The occupational exposure limits are set well below the threshold considered by experts to be potentially harmful, but are higher than those for the general population. The difference in the acceptable exposure levels is based on the premise that workers are aware of their exposure and have the knowledge and means to effectively control their exposure and also on the greater potential for continuous exposure on the part of the public.

37. The occupational/controlled limits in our rules apply "in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure." The limits for occupational/controlled exposure also apply "in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure."[26] The general population/uncontrolled exposure limits apply "in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure."[27]

38. To make it easier for our licensees and grantees to interpret their responsibilities, we propose to explain in a note to Section 1.1310 of our rules that "fully aware" means that an exposed individual has received written and verbal information concerning the potential for RF exposure and has received training regarding appropriate work practices relating to controlling or mitigating his or her exposure. As specified in the rules, transient individuals must simply be made aware of their exposure. This could be achieved by means of written and/or verbal information, including, for instance, appropriate signage. We propose to specify that "exercise control" means that an exposed individual is able to reduce or avoid exposure by administrative

(Continued from previous page)

[25] *See* 47 CFR §§1.1310, 2.1091, 2.1093.

[26] 47 CFR § 1.1310 Table 1 Note 1.

[27] 47 CFR § 1.1310 Table 1 Note 2.

or engineering work practices, such as use of personal protective equipment or time-averaging of exposure.[28]

39. With respect to fixed transmitters, we have found in implementing our RF exposure guidelines over the past several years that in some cases licensees have failed to take note of the fact that they are responsible for compliance with both the occupational/controlled limits as well as the general population/uncontrolled limits. Some licensees have determined, by calculations or by other means, that they comply with the limits for the general public and have then assumed that they are fully compliant with our exposure limits or otherwise categorically excluded from further action. In these cases, licensees have often not considered their responsibilities to ensure compliance for workers who may have access to areas in closer proximity to antenna sites. We propose to add the following language to Section 1.1310 of our rules, as a reminder of this obligation: "Licensees and applicants are generally responsible for compliance with *both* the occupational/controlled exposure limits and the general population/uncontrolled exposure limits in Table 1 as they apply to transmitters under their jurisdiction. Licensees and applicants should be aware that the occupational/controlled exposure limits apply especially in situations were workers may have access to areas in very close proximity to antennas where access to the general public may be restricted."

40. With respect to portable and mobile devices, we are proposing that labels may be used to satisfy the requirements for making workers aware of the potential for exposure. We note that the Telecommunications Industry Association (TIA) is developing labeling guidelines for manufacturers to follow in this regard.[29] Consistent with TIA's efforts, we are proposing to allow a label to be used to fulfill the requirement for making workers aware of the potential for exposure. The label must indicate that the device is for occupational use only, refer the user to specific information on RF exposure (*e.g.*, in a user manual), and note that the label and its information is required for FCC RF exposure compliance. The rules would also state that the label must be legible and clearly visible to a user. We further propose to require that the instructional material provide the user with information on how to use the device in such a way as to ensure compliance with the applicable occupational/controlled limit, *e.g.*, instructions as to proper device position, duty factor requirements, proper use of accessories, *etc.* We are proposing that a sample of the label, illustrating its location on the device, and the accompanying instructional material be filed with the Commission along with the application for equipment authorization. We propose to modify Sections 2.1091(d)(3) and 2.1093(d)(1) accordingly, and we invite comment on these proposals.

[28] For purposes of developing training programs for employees, we note that several resources are becoming available to provide guidance on appropriate RF safety programs. These resources include services provided by commercial vendors as well as information available through governmental and other Internet Web sites. Furthermore, a committee of the IEEE, Subcommittee 2 of Standards Coordinating Committee 28, is now in the process of drafting an IEEE Recommended Practice for the development of an RF safety program. IEEE SCC28, SC2.

[29] TSB-133 Draft, Telecommunications Industry Association.

G. Labeling Requirements for Consumer Products

41. The rules currently require labels for certain consumer products that use wireless technology advising users of RF exposure information. These labeling requirements apply to all subscriber transceiver antennas in the following services: Multipoint Distribution Service (Subpart K of Part 21), Experimental, Auxiliary, and Special Broadcast and Other Program Distributional Services (Subpart I of Part 74, ITFS only), Digital Electronic Message Service (24 GHz, Subpart G of Part 101) and Local Multipoint Distribution Service (Subpart L of Part 101). Licensees in these services are required to attach a label to subscriber transceiver antennas that: (1) provides adequate notice regarding potential radiofrequency safety hazards, *e.g.*, information regarding the safe minimum separation distance required between persons and transceiver antennas; and (2) references the applicable FCC-adopted limits for radiofrequency exposure specified in §1.1310 of the Rules.

42. We are not proposing to change the specifications of the information that must be provided on labels when they are required. We seek comment on whether there are conditions under which we could forgo labeling requirements, similar to the approach by which we provide categorical exclusions from our requirements for routine evaluation for RF exposure. Elsewhere in this Notice, we are inviting comment on whether a power threshold for routine evaluation of transmitters authorized under Section 15.247 that are designed with the potential to be closer than 20 cm from the body or from nearby persons should be 100 mW conducted or radiated peak power. For fixed transmitters that are designed to be at least 20 cm from users or nearby persons, we are proposing power thresholds of 1.5 W ERP for transmitters operating at or below 1.5 GHz and 3 W ERP for those operating at frequencies above 1.5 GHz. Accordingly, we propose to use these same criteria for triggering the labeling requirements for fixed consumer devices, and to apply the labeling requirements equivalently across all service categories for which labeling requirements currently apply (see para. 41, above).[30] We also propose a new labeling requirement for fixed consumer transceivers in the 39 GHz services governed by Part 101, Subpart C, which operate similarly to the other consumer devices affected by these rules. This would provide parties with relief from the labeling requirements where such labeling would not appear necessary. We also propose to not require labeling of such devices if the responsible party demonstrates by any appropriate means that MPE or SAR limits could not be exceeded regardless of distance from the antenna. We seek comment on the propriety of these criteria for each of these services, whether different criteria are appropriate for some services or some circumstances, and whether there are other services to which these or other labeling requirements should apply. For example, should these or other labeling requirements apply to cellular, PCS, and other CMRS licensees that choose to offer consumer-based fixed service? We also seem comment on whether the term "subscriber" adequately encompasses the potential users of such transceiver antennas.

43. In other actions where compliance of subscriber transceiver antennas with our RF exposure rules has been discussed, we have noted the desirability of having such antennas professionally installed in such a way as to minimize the likelihood of exposures in excess of our

[30] We believe that these power thresholds are conservative for typical applications such as the main-beam of a high-gain antenna, based on far-field theoretical calculations at a distance of 20 cm in the main transmitted beam.

safety limits, for example, by mounting antennas in relatively inaccessible areas.[31] We also have encouraged the incorporation of safety "cut-off" devices in such antennas which would reduce power or shut down the transmitter when the transmitted beam was blocked, *e.g.*, by a child who would not be able to read a label.[32] We have also noted that instructional materials should be provided to users and installers that advise as to safety precautions and minimum separation distances.[33] We have not made any of these measures mandatory by requiring them in our rules, and we are not proposing to do so at this time. We are uncertain of the costs of such measures in all cases, and whether there is sufficient increase in effectiveness over labeling to justify such costs in all cases.[34] We invite comment, however, on whether we should adopt additional mandatory requirements, such as those described above, for certain types of RF consumer products.

H. Compliance Evaluation Based on SAR Limits.

44. The Commission's RF exposure guidelines are based on exposure criteria published by the National Council on Radiation Protection and Measurements (NCRP) and the Institute of Electrical and Electronics Engineers (IEEE).[35] Both the NCRP and the IEEE specify exposure criteria in terms of allowed levels for Specific Absorption Rate (SAR). In turn, reference levels for Maximum Permissible Exposure (MPE) were derived by the NCRP and the IEEE, based on the SAR limits. The MPE values are expressed in units of field strength and power density. Section 1.1310 of the Commission's rules specifies the criteria to be used for evaluating compliance with the RF exposure guidelines. However, due to an oversight, Section 1.1310 directly refers only to the MPE values for field strength and power density, not the SAR values. This section should also specify the SAR values from which the MPE values were derived. This has become important because there may be instances when an applicant may wish to perform an SAR evaluation in lieu of determining power density or field strength, in particular in cases where the MPE values may be overly conservative. In such cases, applicants should be given the option of performing an SAR evaluation, if appropriate. Therefore, we propose to amend Section 1.1310 to reference the underlying whole-body and partial-body SAR values for

[31] For example, *see Report and Order and Further Notice of Proposed Rule* Making, WT Docket No. 99-217, 15 FCC Rcd 22983, 23035-36 (2000).

[32] *Id.*

[33] *Id.*

[34] The International Bureau has conditioned certain license authorizations for consumer premises satellite transmit terminals and required that such transmit terminals must be professionally installed. In addition, the Commission recently requested comment on whether professional installation should be required for consumer transmit terminals that operate in the Ku-band and are less than 1.2 meters in diameter or operate in the C-band and are less than 4.5 or 3.7 meters in diameter. *See, Further Notice of Proposed Rule Making,* IB Docket 00-248, (2000 Biennial Regulatory Review – Streamlining and Other Revisions of Part 25 of the Commission's Rules Governing the Licensing of, and Spectrum Usage by, Satellite Network Earth Stations and Space Stations), 17 FCC Rcd 18,585, (2002) at page 18,605.

[35] *See* 47 CFR §1.1310.

exposure criteria, and to allow for evaluation of SAR in lieu of power density or field strength evaluation for demonstrating compliance. We invite comment on this proposal.

I. Spatial Averaging for Evaluating Compliance

45. As currently discussed in OET Bulletin 65, compliance with the Commission's MPE limits for fixed antennas is generally based on the concept of "spatially averaging" power density or field strength squared, as recommended in IEEE and NCRP standards and publications.[36] However, there has been some confusion as to when spatial averaging is appropriate in situations where near-field exposures may exist or in areas where a power density or field strength level needs to be measured very close to an antenna.

46. There can be situations where a localized ("spatial peak") field intensity exceeds our MPE limits near an antenna where public or worker access is possible, while a spatially-averaged measurement over the area indicates compliance. It is possible that such localized "hot spots" could lead to SAR values in the body of a nearby person that exceed the partial-body value for SAR adopted by the FCC while not exceeding the whole-body limit. This can be relevant to exposures from both fixed antennas and antennas used for "mobile" devices, since our rules allow evaluation of exposure to mobile devices (as defined in our rules) in terms of field strength or power density. We seek comment on the best way to ensure compliance in such situations, other than requiring burdensome SAR evaluations for localized and/or whole-body SAR, which could be impractical and costly. Therefore, we seek comment on the issue of when spatial averaging of exposures is appropriate and how to deal with localized exposures in situations where spatial peak measurements may exceed the MPE limit values.

47. We also seek comment on procedures for determining whole-body spatial averaging. Current procedures involve averaging readings made in several positions relative to the RF source, including situations in which single emitters are present and those in which multiple emitters are present where no one RF source predominates. We seek comment on this approach, including whether using the maximum of such readings would be more appropriate. We also seek comment on such topics as the influence the body of the observer may have on the field being measured and the position of the body of the observer relative to the RF source. We are aware that several scanning protocols have been proposed for instruments that either allow automatic averaging or require measurements at specific points along a vertical line. Several studies have been carried out on this topic, but definitive guidance has not been generally available from the IEEE or other organizations, although this topic is discussed in the latest version of IEEE C95.1-1999. Therefore, we invite comment on whether the FCC should adopt or recommend a specific technique or procedure for whole-body spatial averaging to determine compliance with our exposure limits, and, if so, what technique or procedure should be adopted. Such guidance could be issued in the form of a Public Notice or could be incorporated into a new edition of OET Bulletin 65.

[36] *See* IEEE C95.1, 1999 Edition (Section 6.6); NCRP Report 119.

J. Medical Implant Communications Service.

48. The Medical Implant Communications Service (MICS) authorizes the use of medically implanted transmitters for providing diagnostic and therapeutic information about a patient to health care professionals.[37] We have been made aware of an inconsistency in our rules regarding requirements for MICS transmitters to comply with Commission guidelines on RF exposure. Section 95.603 (47 CFR §95.603) of the Commission's rules requires that applications for equipment authorization of devices operating under this section *must* include a report showing the results of computational modeling of patient exposure using finite difference time domain (FDTD) techniques. In addition, this rule part states that the Commission may also request the submission of measurement data for Specific Absorption Rate (SAR). On the other hand, Section 1.1307(b)(2) of the rules specifies that compliance may be demonstrated by *either* FDTD analysis *or* the submission of measurement SAR data, with the Commission retaining the option of requesting measurement data to support an FDTD analysis, if appropriate. The latter rule is the correct one. In other words, an applicant should have the option of demonstrating compliance by use of either computational techniques *or* by a laboratory measurement study. We therefore propose to revise Section 95.603 to make it consistent with Section 1.1307(b)(2). For completeness, we also propose to add identical language to Section 2.1093 (47 CFR §2.1093) dealing with compliance of portable devices.

K. Transition Period.

49. We recognize that a certain period of time will be needed by licensees and applicants to become familiar with any changes to our rules that could require additional routine evaluation for some previously categorically excluded transmitters and devices. We are proposing to provide a transition period of six months after any new rules are adopted in this proceeding before they become effective. We seek comment on the appropriate length of this transition period.

IV. PROCEDURAL MATTERS

50. As required by Section 603 of the Regulatory Flexibility Act, 5 U.S.C. § 603, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible economic impact on small entities of the policies and rules proposed in this document. The IRFA is set forth in Appendix C. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments filed in this *Notice of Proposed Rule Making* as set forth in paragraph 38, but they must have a separate and distinct heading designating them as responses to the IRFA.

51. This NPRM contains either a proposed or modified information collection. As part of its continuing effort to reduce paperwork burdens, we invite the general public and the Office of Management and Budget (OMB) to take this opportunity to comment on the information

[37] 47 CFR §95.1201 et seq.

collections contained in this NPRM, as required by the Paperwork Reduction Act of 1995, Public Law 104-13. Public and agency comments are due at the same time as other comments on this NPRM; OMB comments are due 60 days from date of publication of this NPRM in the Federal Register. Comments should address: (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

52. This is a permit-but-disclose notice and comment rule making proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in the Commission's rules. *See generally* 47 CFR §§ 1.1202, 1.1203, and 1.2306(a).

53. Pursuant to Sections 1.415 and 1.419 of the Commission's Rules, 47 CFR §§ 1.415 and 1.419, interested parties may file comments on or before [90 days from date of publication in the Federal Register] and reply comments on or before [120 days from date of publication in the Federal Register]. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS), http://www.fcc.gov/e-file/ecfs.html, or by filing paper copies. *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 Fed. Reg. 24121 (1998).

54. Comments filed through the ECFS can be sent as an electronic file via the Internet to http://www.fcc.gov/e-file/ecfs.html. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form." A sample form and directions will be sent in reply. Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rule making number appear in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number.

55. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). The Commission's contractor, Vistronix, Inc., will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002.

-The filing hours at this location are 8:00 a.m. to 7:00 p.m.

-All hand deliveries must be held together with rubber bands or fasteners.

-Any envelopes must be disposed of before entering the building.

-Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

-U.S. Postal Service first-class mail, Express Mail, and Priority Mail should be addressed to 445 12th Street, SW, Washington, D.C. 20554.

-All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

56. Parties who choose to file by paper should also submit their comments on diskette. Such a submission should be on a 3.5-inch diskette formatted in an IBM compatible format using Microsoft Word or compatible software. The diskette should be accompanied by a cover letter and should be submitted in "read only" mode. The diskette should be clearly labeled with the commenter's name, proceeding (including the lead docket number), type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase "Disk Copy – Not an Original." Each diskette should contain only one party's pleading, preferably in a single electronic file. In addition, commenters must send diskette copies to the Commission's copy contractor, Qualex International, 445 !2th Street, S.W., Room CY-B402, Washington, D.C. 20554.

57. Alternative formats (computer diskette, large print, audio cassette and Braille) are available to persons with disabilities by contacting Brian Millin at (202) 418-7426, TTY (202) 418-4365, or via e-mail to bmillin@fcc.gov. This Notice of Proposed Rule Making can also be downloaded at http://www.fcc.gov/oet.

58. Written comments by the public on the proposed and/or modified information collections are due at the same time as comments on the NPRM. Written comments must be submitted by the Office of Management and Budget (OMB) on the proposed and/or modified information collections on or before [90 days after date of publication in the Federal Register]. In addition to filing comments with the Secretary, a copy of any comments on the information collection(s) contained herein should be submitted to Judy Boley, Federal Communications Commission, Room 1-C804, 445 12th Street, SW, Washington, D.C. 20554, or via the Internet to jboley@fcc.gov and to Kim Johnson, OMB Desk Officer, 10236 NEOB, 725 – 17th Street, N.W., Washington, D.C. 20503, or via the Internet to Kim_A._Johnson@omb.eop.gov (spaces in address are underscores).

59. Accordingly, IT IS ORDERED that pursuant to the authority contained in Sections 4(i), 301, 303(f), and 303 (r) of the Communications Act of 1934, as amended, 47 USC Sections 154(i), 301, 303(f), and 303(r), this Notice of Proposed Rule Making IS ADOPTED.

60. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this NPRM, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

61. For further information regarding this Notice of Proposed Rule Making, contact Robert F. Cleveland, Office of Engineering and Technology, (202) 418-2422, e-mail rclevela@fcc.gov, or the Commission's RF Safety Program at (202) 418-2464 or rfsafety@fcc.gov.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A: PROPOSED RULES

For the reasons set forth above, Parts 1 and 2 of title 47 of the Code of Federal Regulations are proposed to be amended as follows:

PART 1 – PRACTICE AND PROCEDURE

1. The authority citation for Part 1 continues to read as follows:

AUTHORITY: 47 U.S.C. 151, 154, 303, and 309(j) unless otherwise noted.

2. Section 1.1307(b) is revised by modifying Table 1 and paragraphs 1.1307(b)(1) and 1.1307(b)(2) to read as follows:

§1.1307 Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.

* * * * *

(b) * * *

(1) The appropriate exposure limits in §§1.1310 and 2.1093 of this chapter are generally applicable to all facilities, operations and transmitters regulated by the Commission. However, a determination of compliance with the exposure limits in §1.1310 or §2.1093 of this chapter (routine environmental evaluation), and preparation of an EA if the limits are exceeded, is necessary only for the facilities, operations and transmitters indicated in Table 1, or those specified in paragraph (b)(2) of this section. All other facilities, operations and transmitters are categorically excluded from making such studies or preparing an EA, except as indicated in (b)(1)(ii) below and in paragraphs (c) and (d) of this section. The term *power* in column 2 of Table 1 refers to total operating power of the transmitting operation in question in terms of effective radiated power (ERP), effective isotropically radiated power (EIRP), or peak envelope power (PEP), as defined in §2.1 of this chapter. The phrase *total transmit power of all channels* when used in column 2 of Table 1 means the sum of the ERP or EIRP of all co-located simultaneously operating transmitters owned and operated by a single licensee. When applying criteria of Table 1, radiation in all directions should be considered. For the case of transmitting facilities using sectorized transmitting antennas, the criteria are to be applied to all transmitting channels in a given sector, noting that for a highly directional antenna there is relatively little contribution to ERP or EIRP summation for other directions. See Section 1.1310 for general information on compliance with the FCC's limits for RF exposure.

(i) Table 1 applies to "fixed" transmitters. For purposes of applying these rules, a fixed transmitter is defined as one that is physically secured at one location and is not able to be easily moved to another location. This definition includes transmitters that are physically secured at one location on a temporary basis. An example of this latter case would be a wireless base station installed temporarily to accommodate increased call volume at a special event.

(ii) Fixed transmitters in any service are not required to undergo routine environmental evaluation for RF exposure, and the provisions of Table 1 do not apply, if the transmitter is mounted such that persons cannot be closer than 20 cm from any part of the radiating structure and if the operating power of the transmitter is less than 1.5 W effective radiated power (ERP), for transmitters operating at frequencies at or below 1.5 GHz, or less than 3 W ERP for operating frequencies above 1.5 GHz. Compliance with exposure guidelines for fixed transmitters can be accomplished by the use of labels specifying minimum separation distance and/or proper antenna installation.

(iii) *Labeling requirements:* With the exception of (iv) below, licensees in service categories with labeling requirements are required to attach a label to a fixed subscriber transceiver antenna if: (1) the transceiver is mounted such that persons cannot be closer than 20 cm from any part of the radiating structure and the operating power of the transmitter is greater than 1.5 W ERP, for transmitters operating at frequencies at or below 1.5 GHz, or greater than 3 W ERP for operating frequencies above 1.5 GHz; or, (2) the transceiver is designed with the potential to be mounted closer than 20 cm from the body or from nearby persons and the operating power is greater than 100 mW conducted or radiated peak power. The label must provide adequate notice regarding potential radiofrequency safety hazards, *e.g.*, information regarding the safe minimum distance required between users and antennas; and reference the applicable FCC-adopted limits for radiofrequency exposure specified in § 1.1310 of this chapter. Such labels must be clearly visible and legible to nearby persons.

(iv) Labels are not required on any fixed subscriber transceiver antennas if it can be demonstrated that the appropriate partial body SAR limits specified in §2.1093 of this chapter cannot be exceeded by persons immediately adjacent to the antenna. Also, labels are not required on any fixed subscriber transceiver antenna if the transmitter is mounted such that persons can never be closer than 20 cm from any part of the radiating structure and the device can be shown to comply with the MPE limits for field strength and/or power density at a distance of 20 cm or more.

TABLE 1: FIXED TRANSMITTERS, FACILITIES AND OPERATIONS SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION

SERVICE (TITLE 47 CFR RULE PART)	EVALUATION REQUIRED IF:
Experimental Radio Services (Part 5)	(1) Transmit power is 100 W ERP (164 W EIRP) or more *or* (2) Separation distance is less than 3 m
Multipoint Distribution Service (Subpart K of Part 21)	(1) Separation distance is less than 10 m and transmit power is greater than 200 W ERP (328 W EIRP) *or* (2) Separation distance is less than 3 m ***Labeling:*** In addition, MDS licensees are required to comply with the labeling requirements set forth in Sections 1.1307(b)(1)(iii) and (iv) of this Chapter.
Paging and Radiotelephone Service (Subpart E of Part 22)	(1) Separation distance is less than 10 m and transmit power is greater than 100 W ERP (164 W EIRP) for VHF, UHF, and 900 MHz channels, or greater than 200 W ERP (328 W EIRP) for 2.1 GHz channels *or* (2) Separation distance is less than 3 m
Cellular Radiotelephone Service (Subpart H of Part 22)	(1) Separation distance is less than 10 m and transmit power is greater than 100 W ERP (164 W EIRP) *or* (2) Separation distance is less than 3 m.

Table 1 (cont.)

Personal Communications Services (Part 24)	***Narrowband PCS (subpart D)*:** (1) Separation distance is less than 10 m and transmit power is greater than 100 W ERP (164 W EIRP) ***or*** (2) Separation distance is less than 3 m. ***Broadband PCS (subpart E)*:** (1) Separation distance is less than 10 m and transmit power is greater than 200 W ERP (328 W EIRP). ***or*** (2) Separation distance is less than 3 m.
Satellite Communications (Part 25)	All Included. ***For DARS terrestrial repeater stations only:*** (1) Separation distance is less than 10 m and transmit power is greater than 200 W ERP (328 W EIRP) ***or*** (2) Separation distance is less than 3 m. ***Labeling:*** In addition, for NGSO subscriber equipment, licensees are required to comply with the labeling requirements set forth in Sections 1.1307(b)(1)(iii) and (iv) of this Chapter.

Table 1 (cont.)

Wireless Communications Service (Part 27)	***700 MHz service:*** (1) Separation distance is less than 10 m and transmit power is greater than 100 W ERP (164 W EIRP) ***or*** (2) Separation distance is less than 3 m. ***2.3 GHz service:*** (1) Separation distance is less than 10 m and transmit power is greater than 200 W ERP (328 W EIRP) ***or*** *(2)* Separation distance is less than 3 m.
Radio Broadcast Services (Part 73)	All included, except Subpart G. ***For subpart G only***: Separation distance less than 3 m (assuming ERP 100 W or less)
Experimental, auxiliary, and special Broadcast and other program Distributional services (Part 74)	***Subparts A, G, L:*** (1) Transmit power is greater than 100 W ERP (164 W EIRP) ***or*** (2) Separation distance is less than 3 m. ***Subpart I:*** *(1)* Separation distance is less than 10 m and transmit power is greater than 200 W ERP (328 W EIRP) ***or*** *(2)* Separation distance is less than 3 m. ***Labeling:*** In addition, ITFS licensees are required to comply with the labeling requirements set forth in Sections 1.1307(b)(1)(iii) and (iv) of this Chapter.

Table 1 (cont.)	
Stations in the Maritime Services (Part 80)	Ship earth stations only.
Private Land Mobile Radio Services Paging Operations & Specialized Mobile Radio (Part 90)	(1) Separation distance is less than 10 m and transmit power is greater than 100 W ERP (164 W EIRP) *or* (2) Separation distance is less than 3 m.
Amateur Radio Service (Part 97)	Transmitter output power > levels specified in § 97.13(c)(1) of this chapter
Fixed Microwave Service (Part 101)	***For frequencies at or below 1500 MHz:*** (1) Separation distance is less than 10 m and transmit power is greater than 100 W ERP (164 W EIRP) *or* (2) Separation distance is less than 3 m. ***For frequencies above1500 MHz:*** (1) Separation distance is less than 10 m and transmit power is greater than 200 W ERP (328 W EIRP) *or* *(2)* Separation distance is less than 3 m. ***Labeling:*** In addition, licensees in the LMDS, 24 GHz and DEMS, and 39 GHz Service are required to comply with the labeling requirements set forth in Sections 1.1307(b)(1)(iii) and (iv) of this Chapter.

NOTE: The term "separation distance" in Table 1 is defined to mean the minimum distance from any part of the radiating structure of a transmitting antenna in any direction to any area that may be entered by a member of the general public. Workers meeting the criteria for occupational/controlled exposures may access such areas consistent with appropriate engineering and/or administrative controls that result in compliance with FCC occupational/controlled limits without triggering the need for routine evaluation.

(2) Except as provided under Sections 2.1091 and 2.1093, mobile and portable devices that operate in the Cellular Radiotelephone Service, the Personal Communications Services (PCS), the Satellite Communications Services, the Wireless Communications Service, the Maritime Services (ship earth stations only), and the Specialized Mobile Radio Service authorized under subpart H of part 22, part 24, part 25, part 27, part 80, and part 90, respectively, of this chapter, are subject to routine environmental evaluation for RF exposure prior to equipment authorization or use, as specified in §§2.1091 and 2.1093 of this chapter. Cordless telephones and portable transmitters, millimeter devices, unlicensed PCS and unlicensed NII devices authorized under §15.247, §15.253, §15.255, §15.319 and §15.407 of this chapter are also subject to routine environmental evaluation for RF exposure prior to equipment authorization or use. However, routine evaluation for portable devices authorized under §15.247 is required only if the maximum peak output power of the device exceeds 100 milliwatts (100 mW). Portable transmitting equipment for use in the Wireless Medical Telemetry Service (WMTS) authorized under Part 95 of this chapter is subject to routine environmental evaluation as specified in §§2.1093 and 95.1125 of this chapter. Equipment authorized for use in the Medical Implant Communications Service (MICS) as a medical implant transmitter (as defined In Appendix 1 to Subpart E of part 95 of this chapter) is subject to routine environmental evaluation for RF exposure prior to equipment authorization or use, as specified in §2.1093 of this chapter. All other mobile, portable and unlicensed transmitting devices are categorically excluded from routine environmental evaluation for RF exposure under §2.1091 and §2.1093 prior to equipment authorization or use, except as specified in §§1.1307(c) and 1.1307(d) of this chapter.

(3) * * *

(i) * * *

(ii) * * *

3. Introductory language and Notes (1) and (2) to Table 1 in Section 1.1310 are revised and a new Note (3) to Table 1 is added to read as follows:

§ 1.1310 Radiofrequency radiation exposure limits.

The limits for Maximum Permissible Exposure (MPE) listed in Table 1 shall be used to evaluate the environmental impact of radiofrequency (RF) radiation as specified in § 1.1307(b), except as specified below and except in the case of portable devices, as defined in §2.1093 of this chapter, and fixed transmitters that are mounted so that persons may normally be within 20 cm of any part of the radiating structure. The latter devices and transmitters shall be evaluated according to the provisions of §2.1093 of this chapter. The MPE values in Table 1 are derived from a Specific Absorption Rate (SAR) limit for occupational/controlled exposure of 0.4 W/kg, as averaged over the whole-body, and an SAR limit for general population/uncontrolled exposure of 0.08 W/kg, as averaged over the whole-body. In addition, the Commission has adopted exposure limits for spatial peak SAR. In general, and in lieu of compliance with the MPE values in Table 1,

compliance can generally also be demonstrated with respect to the allowed limits for SAR. The SAR limits are as follows. (1) Limits for occupational/controlled exposure: 0.4 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 8 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube); exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 20 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). (2) Limits for general population/uncontrolled exposure: 0.08 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 1.6 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube); exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). Detailed information on evaluating compliance with all of these exposure limits can be found in the FCC's OET Bulletin Number 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields," and in supplements to Bulletin 65, all available at the FCC's Internet Web site: www.fcc.gov/oet/rfsafety.

* * * * *

NOTE 1 to TABLE 1: The occupational/controlled limits of Table 1 apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure. The phrase *fully aware* in the context of applying these exposure limits means that an exposed individual has received written and verbal information concerning the potential for RF exposure. With the exception of *transient* individuals as specified above, it also means that an exposed individual has received comprehensive training regarding appropriate work practices relating to controlling or mitigating his or her exposure. Such training is not required for *transient* individuals, but they must receive written or verbal information and notification (for example, warning signs) concerning their exposure potential and appropriate means available to mitigate their exposure. The phrase *exercise control* means that an exposed individual is allowed to reduce or avoid exposure by administrative or engineering work practices, such as use of personal protective equipment or time-averaging of exposure.

NOTE 2 to TABLE 1: The general population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

NOTE 3 to TABLE 1: Licensees and applicants are generally responsible for compliance with *both* the occupational/controlled exposure limits and the general population/uncontrolled exposure limits in Table 1 as they apply to transmitters under their jurisdiction. Licensees and applicants should be aware that the occupational/controlled exposure limits apply especially in situations were workers may have access to areas in very close proximity to antennas where access to the general public may be restricted.

PART 2 – FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

The authority citation for Part 2 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 302a, 303, and 336, unless otherwise noted.

1. Section 2.1091 is amended by adding new paragraphs (c)(1), (c)(2), and by revising (d) and (d)(3) to read as follows:

§ 2.1091 Radiofrequency radiation exposure evaluation: mobile devices.

(a) * * *

(b) * * *

(c)

Mobile devices that operate in the Cellular Radiotelephone Service, the Personal Communications Service (PCS), the Satellite Communications Services, the Wireless Communications Service, the Maritime Services, the Specialized Mobiile Radio Service, authorized under subpart H of part 22 of this chapter, part 24 of this chapter, part 25 of this chapter, part 27 of this chapter, part 80 of this chapter (ship earth station devices only), and part 90 of this chapter are subject to routine environmental evaluation for RF exposure prior to equipment authorization or use if they operate at frequencies of 1.5 GHz or below and their effective radiated power (ERP) is 1.5 watts or more, or if they operate at frequencies above 1.5 GHz and their ERP is 3 watts or more. Unlicensed personal communications service devices, unlicensed millimeter wave devices and unlicensed NII devices authorized under §15.253, §15.255, and subparts D and E of part 15 of this chapter are also subject to routine environmental evaluation for RF exposure prior to equipment authorization or use if their ERP is 3 watts or more or if they meet the definition of a portable device as specified in §2.1093(b) requiring evaluation under the provisions of that section. All other mobile and unlicensed transmitting devices are categorically excluded from routine environmental evaluation for RF exposure prior to equipment authorization or use, except as specified in §§1.1307(c) and 1.1307(d) of this chapter. Applications for equipment authorization of portable transmitting devices subject to routine environmental evaluation must contain a statement confirming compliance with the limits specified in paragraph (d) of this section as part of their application. Technical information showing the basis for this statement must be submitted to the Commission upon request.

(1) When antennas for Part 15 modular transmitters ("transmitter modules") that operate at power levels of 200 mW or less (peak EIRP or peak conducted output power) are designed to be incorporated into a laptop ("notebook") computer such that they will be located at a distance of at least 20 cm from the body of a user (the configuration necessary to be classified as a mobile device) evaluation of the modular transmitter for compliance with the Commission's RF

exposure limits is not required. Evaluation for compliance with the Commission's RF exposure limits is required for modular transmitters operating in excess of 200 mW (peak EIRP or peak conducted output power).

(2) In general, the maximum RF exposure of a combination device (host device plus modules) can be determined by adding the frequency-dependent RF exposure levels of all antennas incorporated within a single combination device that could functionally transmit at the same time. Such antennas can be considered to be "mobile" transmitting devices for purposes of evaluating compliance as long as the 20 cm separation criterion defined in (b) of this section is met.

(d) The limits to be used for evaluation of mobile devices are the limits for Maximum Permissible Exposure (MPE) specified in § 1.1310 of this chapter. Appropriate methodologies for evaluating exposure from mobile devices are described in the most current edition of *OET Bulletin 65*. All unlicensed personal communications service (PCS) devices and unlicensed NII devices shall be subject to the limits for general population/uncontrolled exposure.

(1) * * *

(2) * * *

(3) If appropriate, compliance with exposure guidelines for devices in this section can be accomplished by the use of labels and by providing users with information concerning minimum separation distances from transmitting structures and proper installation of antennas. Labels should be legible and clearly visible to the user of the device. Labels used on devices that are subject to occupational/controlled exposure limits must indicate that the device is for occupational use only, must refer the user to specific information on RF exposure, such as that provided in a user manual, and must note that the label and its information is required for FCC RF exposure compliance. Such instructional material must provide the user with information on how to use the device in order to ensure compliance with the occupational/controlled exposure limits. A sample of the label, illustrating its location on the device, and any instructional material intended to accompany the device when marketed, shall be filed with the Commission along with the application for equipment authorization. For occupational devices, details of any special training requirements pertinent to limiting RF exposure should also be submitted. Holders of grants for mobile devices to be used in occupational settings are encouraged, but not required, to coordinate with end-user organizations to ensure appropriate RF safety training.

(4) * * *

2. Section 2.1093 is amended by adding new paragraphs (c)(1) – (c)(6) and (d)(1)(i) and by revising (d)(3) to read as follows:

§ 2.1093 Radiofrequency radiation exposure evaluation: portable devices.

(a) * * *

(b) * * *

(c) Portable devices that operate in the Cellular Radiotelephone Service, the Personal Communications Service (PCS), the Satellite Communications Services, the Wireless Communications Service, the Maritime Services, the Specialized Mobiile Radio Service, the Wireless Medical Telemetry Service (WMTS) and the Medical Implant Communications Service (MICS), authorized under subpart H of part 22 of this chapter, part 24 of this chapter, part 25 of this chapter, part 27 of this chapter, part 80 of this chapter (ship earth station devices only), part 90 of this chapter, subparts H and I of part 95, and unlicensed personal communication service, unlicensed NII devices and millimeter wave devices authorized under subparts D and E, §15.253 and §15.255 of part 15 of this chapter are subject to routine environmental evaluation for RF exposure prior to equipment authorization or use. Portable devices authorized under §15.247 of part 15 of this chapter are subject to routine evaluation for RF exposure prior to equipment authorization or use if the maximum peak output power of the device exceeds 100 milliwatts (100 mW). Evaluation of MICS transmitters may be demonstrated by use of computational modeling or laboratory measurement techniques. Unless otherwise specified in this chapter, other portable transmitting devices are categorically excluded from routine environmental evaluation for RF exposure prior to equipment authorization or use, except as specified in §§1.1307(c) and 1.1307(d) of this chapter. Applications for equipment authorization of portable transmitting devices subject to routine environmental evaluation must contain a statement confirming compliance with the limits specified in paragraph (d) of this section as part of their application. Technical information showing the basis for this statement must be submitted to the Commission upon request.

(1) Unlicensed transmitters authorized under §15.247 may be authorized as "transmitter modules" for use in various host devices provided that the configurations and exposure conditions of host products are identified and provided the maximum peak conducted output power is 100 milliwatts (100 mW) or less. Such transmitters may be authorized as modules when they have been shown to comply with our RF exposure guidelines and when it can be demonstrated that the use of the module in additional host devices would not result in non-compliance.

(2) When a modular transmitter ("transmitter module") is designed to be used in a hand-held wireless portable telephone or in a portable digital assistant ("PDA") that can be used in contact with the head or body, and the operating power level of the module is 2 mW or less (peak EIRP or peak conducted output power), if the phone or PDA ("host" device) has been previously shown to be compliant with the Commission's limits for SAR, no additional SAR evaluation of the combined device (host plus module) is required. When a modular transmitter is designed to be used in a hand-held wireless portable telephone or in a PDA that can be used in contact with the head or body, and the operating power level of the module is greater than 2 mW (peak EIRP or peak conducted output power), the combined device (host plus module) must be evaluated for SAR in the normal operating configuration. If the combined device is demonstrated to be in compliance with the Commission's SAR limits, this demonstration of compliance can be applied to such modules designed to be used in similar host devices that have been tested and certified for similar configurations.

(3) When modular transmitters ("transmitter modules") operating at power levels of 10 mW or less (peak EIRP or peak conducted output power) are designed to be used in the keyboard portion of a laptop ("notebook") computer evaluation for compliance with the Commission's limits for SAR is not required.

(4) When modular transmitters ("transmitter modules") operating at power levels of 25 mW or less (peak EIRP or peak conducted output power) are designed to be used in a PDA, designed only to be held in the hand, evaluation for compliance with the Commission's limits for SAR is not required.

(5) When a modular transmitter is designed to be used in a PDA (the "host device") that is only used when held in the hand, and the operating power level of the module is greater than 25 mW (peak EIRP or peak conducted output power), the combined device (host plus module) must be evaluated for SAR in the normal operating configuration. If the combined device is demonstrated to be in compliance with the Commission's SAR limits, this demonstration of compliance can be applied to such modules designed to be used in similar host devices that have been tested and certified for similar configurations.

(6) For a combination device that incorporates at least one modular transmitter in addition to the host transmitter, when the relevant exclusion thresholds described in (i) - (iii) of this section are not applicable, evaluation of SAR of the combination device can be determined by adding the maximum RF exposure levels of all antennas incorporated within a single combination device that could functionally transmit at the same time.

(d) * * *

(1) * * *

(i) Labels placed directly on portable devices designed only for occupational use can be used as part of an applicant's evidence of compliance with occupational/controlled exposure limits. Such labels should be legible and clearly visible to the user of the device. They must indicate that the device is for occupational use only, refer the user to specific information on RF exposure, such as that provided in a user manual and note that the label and its information is required for FCC RF exposure compliance. Such instructional material must provide the user with information on how to use the device in order to ensure compliance with the occupational/controlled exposure limits. A sample of the label, illustrating its location on the device, and any instructional material intended to accompany the device when marketed, shall be filed with the Commission along with the application for equipment authorization. Details of any special training requirements pertinent to limiting RF exposure should also be submitted. Holders of grants for portable devices to be used in occupational settings are encouraged, but not required, to coordinate with end-user organizations to ensure appropriate RF safety training.

(2) * * *

(3) Compliance with SAR limits can be demonstrated by either laboratory measurement techniques or by computational modeling. The latter must be supported by adequate documentation. The methodologies that shall be used for evaluating SAR for wireless handsets and similar devices are described in the most current edition of *Supplement C* to *OET Bulletin 65*, issued by the Commission's Office of Engineering and Technology.

(4) * * *

(5) * * *

3. Section 95.603 is amended by revising (f) as follows:

§ 95.603 Certification required.

(a) – (e) * * *

(f) Each Medical Implant Communications Service transmitter (a transmitter that operates or is intended to operate in the MICS) must be certificated except for medical implant transmitters that are not marketed for use in the United States, but which otherwise comply with the MICS technical requirements and are operated in the United States by individuals who have traveled to the United States from abroad. Medical implant transmitters (as defined in appendix 1 to subpart E of part 95 of this chapter) are subject to the radiofrequency radiation exposure requirements specified in §§1.1307 and 2.1093 of this chapter, as appropriate. Applications for equipment authorization of devices operating under this section must demonstrate compliance with these requirements using either finite difference time domain computational modeling or by laboratory measurement techniques. Where a showing is based on computational modeling, the Commission retains the discretion to request that specific absorption rate (SAR) data also be submitted.

(g) * * *

APPENDIX B: INITIAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act of 1980 (RFA),[38] the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in this *Notice of Proposed Rule Making (NPRM)*. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments provided in paragraph 58 in this *NPRM*. The Commission will send a copy of this *NPRM*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).[39] In addition, the *NPRM* and IRFA (or summaries thereof) will be published in the Federal Register.[40]

A. Need for, and Objectives of, the Proposed Rules

The National Environmental Policy Act of 1969 (NEPA) requires agencies of the Federal Government to evaluate the effects of their actions on the quality of the human environment.[41] To meet its responsibilities under NEPA, the Commission has adopted requirements for evaluating the environmental impact of its actions. One of several environmental factors addressed by these requirements is human exposure to radiofrequency (RF) energy emitted by FCC-regulated transmitters, facilities and devices.[42]

The *Notice* proposes to amend Parts 1 and 2 of our rules relating to the compliance of FCC-regulated transmitters, facilities, and devices with the guidelines for human exposure to radiofrequency (RF) energy adopted by the Commission in 1996 and 1997. Specifically we are proposing to make certain revisions in our rules that we believe will result in more efficient, practical and consistent application of compliance procedures.

B. Legal Basis

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[38] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 - 612*et. seq.*, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA)Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 857847 (1996).) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

[39] *See* 5 U.S.C. § 603(a).

[40] *See id.*

[41] National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321-4335.

[42] *See* 47 CFR 1.1307(b).

The proposed action is authorized under Sections 4(i), 301, 303(f) and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. Sections 154(i), 301, 303(f) and 303(r).

C. Description and Estimate of the Number of Small Entities To Which the Proposed Rules Will Apply

The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.[43] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[44] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act, 15 U.S.C. § 632, unless the Commission has developed one or more definitions that are appropriate to its activities.[45] A "small business concern" is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) meets any additional criteria established by the Small Business Administration ("SBA").[46]

A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."[47] Nationwide, as of 1992, there were approximately 275,801 small organizations.[48] "Small governmental jurisdiction"[49] generally means "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000."[50] As of 1992, there were approximately 85,006 governmental entities, total, in the United States.[51] This number includes 38,978 cities, counties, and towns; of these, 37,566, or 96%, have populations of fewer than 50,000.[52] The Census

[43] 5 U.S.C. § 603(b)(3).

[44] 5 U.S.C. § 601(6).

[45] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to the RFA, the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." 5 U.S.C. § 601(3).

[46] 15 U.S.C. § 632.

[47] 5 U.S.C. § 601(4).

[48] U.S Department of Commerce, Bureau of Census, 1992 Economic Census, Table 6 (special tabulation of data under contract to the Office of Advocacy of the U.S. Small Business Administration).

[49] 47 CFR § 1.1162.

[50] 5 U.S.C. § 601(5).

[51] U.S. Department of Commerce, Bureau of the Census, 1992 Census of Governments.

[52] U.S. Department of Commerce, Bureau of the Census, 1992 Census of Governments.
(continued....)

Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, we estimate that 81,600 (96%) are small entities. Nationwide, as of 1992, there were 4.44 million small business firms, according to SBA data.[53]

EXPERIMENTAL RADIO SERVICE (OTHER THAN BROADCAST)

The majority of experimental licenses are issued to companies such as Motorola and Department of Defense contractors such as Northrop, Lockheed and Martin Marietta. Businesses such as these may have as many as 200 licenses at one time. The majority of these applications, are from entities such as these. Given this fact, the remaining 30 percent of applications, we assume, for purposes of our evaluations and conclusions in this IRFA, will be awarded to small entities, as that term is defined by the SBA.

The Commission processes approximately 1,000 applications a year for experimental radio operations. About half or 500 of these are renewals and the other half are for new licenses. We do not have adequate information to predict precisely how many of these applications will be impacted by our proposed rule revisions. However, based on the above figures we estimate that as many as 300 of these applications could be from small entities and potentially could be impacted.

MASS MEDIA SERVICES

Multichannel Multipoint Distribution Service (MMDS), Multipoint Distribution Service (MDS), Instruction Television Fixed Service (ITFS) and Local Multipoint Distribution Service (LMDS). MMDS systems, often referred to as "wireless cable," transmit video programming to subscribers using the microwave frequencies of the MDS and ITFS.[54] MDS and ITFS are authorized to operate in the 2.5-2.69 GHz band. In addition, MDS entities have licenses in the 2.15-2.162 GHZ band. Wireless cable systems combine multiple MDS (*i.e.*, multichannel MDS) frequencies and ITFS frequencies to transmit video programming and high-speed internet access to residential subscribers in limited areas. This delivery technology is also known as MMDS.

In connection with the 1996 MDS auction, the Commission defined small businesses as entities that had annual average gross revenues of less than $40 million in the previous three calendar years.[55] This definition of a small entity in the context of MDS auctions has been

(Continued from previous page)

[53] U.S. Department of Commerce, Bureau of the Census, 1992 Census of Transportation, Communications, and Utilities, UC 92-S-1, Subject Series, Establishment and Firm Size, Table 2D, Employment Size of Firms.

[54] *Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, MM Docket No. 94-131 and PP Docket No. 93-253, Report and Order, 10 FCC Rcd at 9589, 9593 ¶ 7 (1995).

[55] 47 C.F.R. § 21.961(b)(1).

approved by the SBA.[56] The MDS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. MDS also includes licensees of stations authorized prior to the auction. In that regard, the SBA has developed a definition of small entities for cable and other subscription programming, which includes all such companies generating $12.5 million or less in annual receipts.[57] This definition includes multipoint distribution services, and thus applies to MDS licensees and wireless cable operators that did not participate in the MDS auction. Information available indicates that there are approximately 850 of these licensees and operators that do not generate revenue in excess of $11 million annually. Therefore, for purposes of the IRFA, we find there are approximately 850 or more small MDS providers as defined by the SBA and the Commission's auction rules.

The SBA definition of small entities for Cable and Other Program Distribution, which includes such companies generating $12.5 million in annual receipts, appears applicable to ITFS.[58] There are presently 2,032 ITFS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in the definition of a small business.[59] However, we do not collect annual revenue data for ITFS licensees, and are not able to ascertain how many of the 100 non-educational licensees would be categorized as small under the SBA definition. Thus, we tentatively conclude that at least 2,032 licensees are small businesses.

LMDS is a fixed broadband point-to-multipoint microwave service that provides for two-way video telecommunications.[60] In addition to the 1996 MDS auction, the auction of the 1,030 LMDS licenses began on February 18, 1998, and closed on March 25, 1998. The Commission defined "small entity" for LMDS licenses as an entity that has average gross revenues of less than $40 million in the three previous calendar years.[61] An additional classification for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding calendar years.[62] These regulations defining "small entity" in the context of LMDS auctions have been approved by the SBA.[63] There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. On March 27, 1999, the Commission re-auctioned 161 licenses; there were 40 winning bidders. Based on this information, we conclude that the number of small LMDS licenses will

[56] *See Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, MM Docket No. 94-131 and PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589 (1995).
[57] 13 C.F.R. § 121.201, NAICS code 517510.
[58] Id.
[59] "Small entity" under SBREFA includes not only small businesses, but nonprofit organizations and governmental organizations such as cities, counties, towns, townships, villages, school districts, or special districts, with populations of less than 50,000. 5 U.S.C. § 601(5).
[60] *See* Local Multipoint Distribution Service, Second Report and Order, 12 FCC Rcd 12545 (1997).
[61] *Id.*
[62] *Id.*
[63] *See* Letter to Daniel Phythyon, Chief, Wireless Telecommunications Bureau (FCC) from A. Alvarez, Administrator, SBA (January 6, 1998).

include the 93 winning bidders in the first auction and the 40 winning bidders in the re-auction, for a total of 133 small entity LMDS providers as defined by the Commission's auction rules and approved by the SBA. The LMDS service could be impacted by the proposed revisions of our rules, particularly with respect to consumer subscriber transceivers that may be subject to labeling requirements.

In sum, there are approximately a total of 2,000 MDS/MMDS/LMDS stations currently licensed. Of the approximate total of 2,000 stations, we estimate that there are 1,595 MDS/MMDS/LMDS providers that are small businesses as deemed by the SBA and the Commission's auction rules.

MARITIME SERVICES

The proposed rules would not change the current rules that affect licensees using ship earth stations in the Maritime Services. The Commission has not developed a definition of small entities applicable to licensees of ship earth stations. Therefore, the Commission is unable at this time to make a precise estimate of the number of licensees of ship earth stations which are small businesses.

INTERNATIONAL SERVICES

The Commission has not developed a small business size standard applicable to licensees in the international services. However, the SBA has developed a size standard for a small business within the category of Other Telecommunications. Under that SBA size standard, such a business is small if it has $12.5 million or less in average annual receipts.[64] According to Census Bureau data for 1997, there were a total of 439 other communications services providers, operating for the entire year.[65] Of the 439, a total of 430 had annual receipts of less than $10.0 million. Consequently, the Commission estimates that most Other Telecommunications providers are small entities that may be affected by the rules and policies adopted herein.

International Broadcast Stations. Commission records show that there are 19 international high frequency broadcast station authorizations. We do not request nor collect annual revenue information, and are unable to estimate the number of international high frequency broadcast stations that would constitute a small business under the SBA definition. Since all international broadcast stations operate using relatively high power levels, it is likely that they could all be impacted by our rule revisions.

Satellite Telecommunications. The SBA has developed a small business size standard for

[64] 13 C.F.R. § 121.201, North American Industry Classification System (NAICS) code 517410.
[64] 13 CFR 121.201, NAICS codes 48531, 513322, 51334, and 51339.

[65] Id.

Satellite Telecommunications Carriers, which consists of all such companies having $12.5 million or less in annual receipts.[66] In addition, a second SBA size standard for Other Telecommunications includes "facilities operationally connected with one or more terrestrial communications systems and capable of transmitting telecommunications to or receiving telecommunications from satellite systems,"[67] and also has a size standard of annual receipts of $12.5 million or less. According to Census Bureau data for 1997, there were 324 firms in the category Satellite Telecommunications, total, that operated for the entire year.[68] Of this total, 273 firms had annual receipts of $5 million to $9,999,999 and an additional 24 firms had annual receipts of $10 million to $24,999,990.[69] Thus, under this size standard, the majority of firms can be considered small. In addition, according to Census Bureau data for 1997, there were 439 firms in the category Satellite Telecommunications, total, that operated for the entire year.[70] Of this total, 424 firms had annual receipts of $5 million to $9,999,999 and an additional 6 firms had annual receipts of $10 million to $24,999,990.[71] Thus, under this second size standard, the majority of firms can be considered small.

Fixed Satellite Transmit/Receive Earth Stations. There are approximately 4,303 earth station authorizations, a portion of which are Fixed Satellite Transmit/Receive Earth Stations. We do not request nor collect annual revenue information, and are unable to estimate the number of the earth stations that would constitute a small business under the SBA definition. However, the majority of these stations could be impacted by our revised rules.

Fixed Satellite Small Transmit/Receive Earth Stations. There are approximately 4,303 earth station authorizations, a portion of which are Fixed Satellite Small Transmit/Receive Earth Stations. We do not request nor collect annual revenue information, and are unable to estimate the number of fixed small satellite transmit/receive earth stations that would constitute a small business under the SBA definition. However, the majority of these stations could be impacted by our revised rules.

Fixed Satellite Very Small Aperture Terminal (VSAT) Systems. These stations operate on a primary basis, and frequency coordination with terrestrial microwave systems is not required. Thus, a single "blanket" application may be filed for a specified number of small antennas and one or more hub stations. There are 492 current VSAT System authorizations. We do not request nor collect annual revenue information, and are unable to estimate the number of VSAT

[66] 13 C.F.R. § 121.201, North American Industry Classification System (NAICS) code 517410 (formerly 513340).

[67] Id. NAICS code 517910 (formerly 513390).

[68] U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Receipt Size of Firms Subject to Federal Income Tax: 1997," Table 4, NAICS code 517410 (issued Oct. 2000).

[69] Id.

[70] U. S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Receipt Size of Firms Subject to Federal Income Tax: 1997," Table 4, NAICS code 517910 (issued Oct. 2000).

[71] Id.

systems that would constitute a small business under the SBA definition. However, it is expected that many of these stations could be impacted by our revised rules.

Mobile Satellite Earth Stations. There are 19 licensees. We do not request nor collect annual revenue information, and are unable to estimate the number of mobile satellite earth stations that would constitute a small business under the SBA definition. However, it is expected that many of these stations could be impacted by our revised rules.

WIRELESS AND COMMERCIAL MOBILE SERVICES

Cellular and Other Wireless Telecommunications. The SBA has developed a small business size standard for wireless firms within the two broad economic census categories of Paging[72] and Cellular and Other Wireless Telecommunications.[73] Under both SBA categories, a wireless business is small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 1997 show that there were 1,320 firms in this category, total, that operated for the entire year.[74] Of this total, 1,303 firms had employment of 999 or fewer employees, and an additional 17 firms had employment of 1,000 employees or more.[75] Thus, under this category and associated small business size standard, the great majority of firms can be considered small. For the census category Cellular and Other Wireless Telecommunications firms, Census Bureau data for 1997 show that there were 977 firms in this category, total, that operated for the entire year.[76] Of this total, 965 firms had employment of 999 or fewer employees, and an additional 12 firms had employment of 1,000 employees or more.[77] Thus, under this second category and size standard, the great majority of firms can, again, be considered small.

Private and Common Carrier Paging. In the Paging *Third Report and Order*, we adopted criteria for defining small businesses and very small businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[78] We have defined a small business as an entity that, together with its affiliates and controlling principals,

[72] 13 CFR § 121.201, NAICS code 517211.

[73] 13 CFR § 121.201, NAICS code 517212.

[74] U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Employment Size of Firms Subject to Federal Income Tax: 1997," Table 5, NAICS code 513321 (issued Oct. 2000).

[75] Id. The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is "Firms with 1,000 employees or more."

[76] U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Employment Size of Firms Subject to Federal Income Tax: 1997," Table 5, NAICS code 513322 (issued Oct. 2000).

[77] Id. The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees: the largest category provided is "Firms with 1,000 employees or more."

[78] *220 MHz Third Report and Order*, 62 FR 16004 (April 3, 1997), at paragraphs 291-295.

Before the
Federal Communications Commission
Washington, D.C. 20554

In the matter of	)
	)
EMR Network Petition for Inquiry	)
To Consider Amendment of Parts 1 and 2	)
Regarding Environmental Effects of	)
Radiofrequency Radiation	)

ORDER

Adopted: July 28, 2003 **Released: August 14, 2003**

By the Commission: Commissioner Copps issuing a statement.

INTRODUCTION

1. By this action, we deny the Application for Review[1] filed by the EMR Network ("EMR"), contesting the decision of the Chief, Office of Engineering and Technology ("OET") to dismiss EMR's Petition for Inquiry.[2] EMR had requested that we initiate a proceeding to gather information and opinion about the need to revise our regulations for radiofrequency ("RF") radiation and use the information so obtained to revisit our current guidelines for evaluating human exposure to RF emissions from transmitters under the jurisdiction of the Commission. We find that OET was correct in dismissing the petition, having determined that this Commission is not the most appropriate forum to initiate such an inquiry or proceeding concerning the environmental effects of RF radiation at this time.

BACKGROUND

2. Pursuant to the National Environmental Policy Act of 1969 (NEPA)[3], the Commission has established guidelines for human exposure to radiofrequency ("RF") radiation.[4] These guidelines, first established in 1985[5], regulate the amount of RF radiation to which humans may be exposed by various transmitters regulated by the FCC. The guidelines and methods for evaluating the environmental effects of RF have been revised as scientific knowledge in the area has advanced and standards-setting bodies upon which the Commission relies in setting its exposure guidelines have revised their maximum acceptable exposure criteria. The current guidelines were finalized in 1997, based on the recommendations and advice of federal agencies and groups with expertise in health-related areas and in

[1] We consider herein both the Application for Review filed by EMR Network and its Supplement to that application.

[2] Letter from Bruce A. Franca to James R. Hobson, December 11, 2001 ("Dismissal letter").

[3] 42 U.S.C. §§ 4321 *et seq.* (1976).

[4] 47 C.F.R. §§ 1.1307(b), 1.1310, 2.1091, and 2.1093.

[5] *Report and Order* in GEN Docket 79-144 (*RF Report and Order I*), 100 F.C.C. 2d 543 (1985); *Memorandum Opinion and Order* in GEN Docket 79-144, FCC 85-467, released August 22, 1985, 58 RR 2d 1128 (1985).

standards setting.[6] More recently, the Commission updated its procedures for measuring RF exposure from mobile and portable devices.[7] These procedures are based on the work and recommendations of an expert group of the Institute of Electrical and Electronics Engineers (IEEE).[8]

3. In its petition for inquiry, EMR requested that the Commission initiate a proceeding to gather information and opinion about the need to revise our regulations regarding human exposure to RF radiation. It further requested that the Commission use the information obtained in such an inquiry to revisit the guidelines currently established for evaluating human exposure to RF emissions from FCC-regulated transmitters. EMR observed that the Commission's current RF limits are several years old, and asserted that there are a number of studies which purport to demonstrate a health hazard from RF radiation that is not contemplated in our rules. In particular, EMR argued that non-thermal effects and the effects of long-term low-level exposure were not taken into consideration in setting the Commission's RF exposure guidelines. EMR supported its request by reference to a letter written by members of the Radiofrequency Interagency Working Group (IWG), an *ad hoc* group of scientific professionals from various federal agencies that have jurisdiction over or interest in various radiofrequency issues, to the Risk Assessment Working Group of the IEEE.[9] In that letter, at the request of the IEEE, the members of the IWG identified issues which they suggested should be addressed in considering revisions to IEEE's RF exposure guidelines.

4. OET dismissed EMR's petition, noting that in developing rules to implement health and safety related concerns, this Commission has historically relied on agencies with primary expertise and responsibility for ensuring health and safety, such as the Environmental Protection Agency ("EPA") and the Food and Drug Administration (FDA). It observed that the current exposure guidelines are derived from criteria established by the National Council on Radiation Protection and Measurements (NCRP) and the IEEE, as further informed by the advice of the EPA, FDA, and other health and safety agencies. It noted that the adequacy of the Commission's RF exposure guidelines had been recently upheld, in the face of arguments similar to those advanced here by EMR, by the Second Circuit Court of Appeals.[10] OET concluded that a determination of whether the RF safety limits should be revised is, at least initially, more properly the jurisdiction of such agencies, and accordingly dismissed the petition.

DISCUSSION

5. EMR argues that OET failed to state the grounds for its action or to explain the conflicts of that action with law, precedent, and policy. EMR principally argues that the Commission cannot defer the responsibility for its rules to others and that the Commission has initiated action with regard to establishing its RF exposure guidelines in the past, contrary to OET's assertion in its dismissal letter that the Commission relies on other agencies and should not now take the initiative in this area. EMR contends that while the Commission states its reliance on other expert agencies in determining appropriate RF exposure guidelines, OET ignored a letter from the staffs of those agencies in rendering its decision.[11]

[6] *Report and Order* in ET Docket No. 93-62 (*RF Report and Order II*), 11 FCC Rcd 15123 (1996); *Second Memorandum Opinion and Order and Notice of Proposed Rule Making* in WT Docket No. 97-192 and ET Docket No. 93-62, 12 FCC Rcd 13494 (1997).

[7] Public Notice, *Office of Engineering and Technology Announces Release of Revised Supplement C to OET Bulletin 65*, DA 01-1557, June 29, 2001; Public Notice, *Office of Engineering and Technology Announces a Transition Period for the Phantom Requirements of Supplement C to OET Bulletin 65*, DA 02-1438, June 19, 2002.

[8] The IEEE Standards Coordinating Committee 34, Subcommittee 2 is convened specifically to develop procedures for evaluating the Specific Absorption Rate ("SAR") of RF emissions from wireless handsets.

[9] Letter from W. Gregory Lotz, Ph.D. to Mr. Richard Tell, June 17, 1999 (Lotz letter).

[10] *See Cellular Phone Task Force v. FCC*, 205 F.3d 82 (2d Cir., 2000).

[11] EMR refers to the Lotz letter, *supra*.

It questions whether the Commission should rely on the IEEE, which it refers to as a private, commercial body dominated by private commercial interests, for developing RF exposure standards, contending that the other agencies upon which the Commission would rely for guidance in this area variously lack the resources or the interest to participate or to "push back" on the work or recommendations of the IEEE. In a Supplement to its Application for Review, EMR cites the lack of response from other health and safety agencies to which it sent inquiries regarding this matter.[12] EMR distills its argument into a claim that current RF bioeffects research is privately orchestrated, and thus not credible. It concludes by citing the "Recommendations for Executive Action" of a May 2001 Report by the Government Accounting Office[13], in which GAO recommends that the FCC Chairman direct OET to issue revised guidance on SAR testing procedures, and to consult with FDA on the method of incorporating measurement uncertainty in determining compliance with RF safety limits, as further evidence of a need to conduct such an inquiry.

6. We find that, contrary to EMR's assertions, the OET action does not conflict with pertinent law or regulation, and we hereby affirm its decision to dismiss EMR's Petition for Inquiry. OET's fundamental premise – our reliance on the expertise of health and safety agencies in this area - is our sound guiding principle, and EMR has failed to advance any argument that persuades us otherwise.[14]

7. EMR relies primarily on the Lotz letter to support its contention that there are areas of insufficiently explored concern regarding the health effects of human exposure to RF radiation. We agree that in this letter, knowledgeable individuals appropriately identified issues of potential interest in setting RF exposure guidelines. These ideas had been solicited by another working group of experts convened to consider just such matters, the IEEE Risk Assessment Working Group. It is telling, however, that the letter specifically noted that it did not reflect the views of the respective agencies by which the individual IWG members are employed.[15] The IEEE Risk Assessment Working Group has taken these concerns under advisement, but has yet to determine what, if any, responsive action is appropriate. Moreover, not one of the agencies represented by the members of the IWG, whose views and formal actions are informed in part by these individuals and also by other individuals and sources, has elected to initiate any action which EMR can point to or of which we are otherwise aware in response to these issues.

8. EMR argues that by directing EMR's efforts to other agencies, the Commission seeks to be relieved of a responsibility that it cannot legally avoid. In making this argument, EMR suffers a

[12] With its Supplement, EMR submits letters from a staff member of the Environmental Protection Agency (Letter from Norbert Hankin to Ms. Janet Newton, July 16, 2002, "EPA letter"), the Director of the National Institute of Environmental Health Sciences at the National Institute of Health (Letter from Kenneth Olden, Ph.D to Ms. Janet Newton, February 21, 2002, "NIH letter"), the Acting Director of the Centers for Disease Control and Prevention at the National Institute for Occupational Safety and Health (Letter from Kathleen M. Rest, Ph.D, M.P.A. to Ms. Janet Newton, April 2, 2002, "NIOSH letter"), and the Assistant Secretary for Occupational Safety and Health at the U.S. Department of Labor (Letter from John L. Henshaw to Ms. Janet Newton, May 10, 2002, "OSHA Letter"). These letters were sent to EMR in response to its solicitation from these agencies of support for an inquiry into current RF health-related research and the adequacy of the FCC's current RF exposure guidelines. EMR apparently did not receive responses to similar letters from the Food and Drug Administration or the National Telecommunications Information Agency.

[13] GAO Report to Congressional Requesters, *Research and Regulatory Efforts on Mobile Phone Health Issues*, GAO-01-545, May, 2001, at 31-32.

[14] This is not to say that this Commission could not or would not initiate action in the face of compelling evidence of a need for such action. But, where, as here, other more expert agencies have the same information as we have and do not see reason for action, as we further discuss below, it would be difficult for us to ignore the tacit conclusions of those agencies, absent a compelling case to do so.

[15] "The views expressed in this correspondence are those of the members of the Radiofrequency Interagency Work Group and do not represent the official policy of position of the respective agencies." Lotz letter, *supra*, at para. 2.

critical misapprehension. As outlined above, this Commission has carefully and assiduously developed RF guidelines to protect the public according to the best science available, as interpreted by the agencies most expert in the pertinent fields. As aptly recognized by OET in reaching its determination to dismiss EMR's petition, we will continue to rely on just such expertise in evaluating the continued propriety of our RF guidelines. When there is an appropriate indication by such agencies, or other expert sources, whether self-initiated or in response to outside petition or activities, we could consider the need for an investigative effort in support of possible exposure rules revisions. We reiterate here OET's recognition that our RF exposure guidelines were recently upheld by the Court of Appeals.[16] In that decision, the Court specifically recognized that the "the FCC satisfied itself that there was a mechanism in place for accommodating changes in scientific knowledge.... [including scientific committees and ongoing research] ... 'and that it would 'consider amending [its] rules at any appropriate time if these groups conclude that such action is desirable.'" [17] This is precisely the posture that we continue to maintain, as illustrated by OET's decision.[18]

9. EMR attempts to undercut our reliance on this position by relating previous instances in which, it contends, the Commission acted on its RF exposure guidelines on its own initiative. Each of those instances, however, is inapposite to the present circumstances. EMR points out that the Commission's initial proceeding to establish RF exposure limits was commenced without input or specific encouragement from other agencies. At that time, however, the Commission, with no rules regulating human RF exposure, was compelled to undertake a rulemaking proceeding in order to comply with the provisions of the NEPA. When the American National Standards Institute (ANSI) and IEEE established guidelines in this area during the course of that proceeding, the Commission incorporated them into its proceeding, and they formed the basis for the rules eventually adopted.[19] In its more recent revision of RF exposure guidelines, also cited by EMR, the Commission significantly and explicitly relied on expert advice in forming the basis for its initiation of that action[20] and in reaching its conclusions regarding appropriate exposure levels.[21] EMR asserts that, in its reconsideration decision, the Commission in fact "dared to choose between two sets of recommended standards and between and among the conflicting view of other federal agencies themselves."[22] The point of this assertion seems to imply that we cannot now disclaim the ability or responsibility to make such decisions. Neither OET's decision nor our affirmation of that decision, however, would or should do so. OET's conclusion not to proceed with an inquiry on the basis of EMR's Petition, affirmed here, is not based on an unwillingness to choose among conflicting expert information and recommendation, but rather is based on the dearth of such information or recommendations. It is also illustrative of the propriety and effectiveness of our reliance on other experts to recognize that the most recent proceeding to revise our exposure rules was initiated in response to revisions in the ANSI/IEEE standards. We acted in response to the ANSI/IEEE revision explicitly to "reflect recent scientific studies of the biological effect of RF radiation" in order to

[16] *Cellular Phone Task Force v. F.C.C.*, 205 F.3d 82 (2d Cir. 2000), *cert. denied*, 531 U.S. 1070 (2001).

[17] *Id.*, at 90, 91.

[18] We note here that FCC staff continues to participate in the Federal Radiofrequency Interagency Working Group, which monitors developments related to RF biological effects, and in various IEEE committees and subgroups related to RF research, oversight, and standards setting. With this participation, among other means, the Commission stays informed of studies and other information available, as well as the activities and opinions of other agencies pertinent to this area.

[19] *RF Report and Order I, supra* at 543.

[20] *RF Report and Order II, supra* at 15184.

[21] *Id.*

[22] EMR Application for Review at 8.

"ensure that FCC-regulated facilities [would] comply with the latest safety guidelines for RF exposure."[23]

10. While EMR would question the impartiality of the IEEE itself and of the federal agencies and their personnel that participate in its committees and subgroups, the fact remains that IEEE, a nonprofit entity with members representing a variety of interests, including government, industry, and academia, is composed of leading experts in this area. There is no other comparable group of experts with which to consult or upon which to rely. Without the knowledge and views of such experts, credible guidelines and policy in this area cannot be formed. Despite EMR's implication that the IEEE is captive of the industry, it is important to note that membership in the subject committees and subgroups is open, permitting the government and academia to participate to the full extent they desire. Neither the FCC participants nor other government participants have determined that a bias controls or adversely affects the work or deliberations of the IEEE. We note that EMR's criticism of the IEEE is based on a journal article and emphasizes "early draft" proposals rather than final actions.[24] It is final actions, not early drafts, that are significant, and as a participant in the IEEE, we do not find this reference compelling. Moreover, IEEE is not the only source of expertise upon which this agency relies.[25] Also, while EMR decries the private funding for research in this field, research results are critically considered before they would form a basis for action. Moreover, one federal agency, the FDA, currently responsible for overseeing certain research funded by industry is apparently satisfied with that research's objectivity, and it is not our place to second-guess their position in this regard. Additionally, the federal government, through the National Toxicology Program of the National Institute of Environmental Health Sciences, is in the early stages of a long-term study of potential health effects from mobile phones that may provide a basis for future consideration of RF exposure limits. We note that this effort has been undertaken pursuant to a recommendation of the FDA. In sum, EMR's protestations regarding the adequacy of the IEEE or of current research to inform the fundamental decision as to whether and when to initiate a revision of the RF emission guidelines, are not sufficient to warrant an inquiry by this agency at this time.

11. While EMR correctly notes, in a related argument, that it must petition the Commission for changes in Commission's rules, it fails to discriminate what constitutes an adequate basis for pressing such a case. Were EMR to demonstrate reliable pertinent information developed by an appropriate agency or other expert source, we would have a basis for opening a rulemaking or fact-finding proceeding. In the absence of a demonstrable show of concern, or even interest, by other expert agencies with the same (or greater) knowledge of research in this field – and its implications - as we possess, we are not inclined to generate such an inquiry on our own. Additionally, we do not have the prerogative to order other agencies to do so or to participate in an inquiry that this agency might initiate in spite of their better-informed inaction.

12. Finally, EMR, in its Supplement, points to letters it received in response to its own assertion of the inadequacy of our current rules and its solicitation of support for a Commission rule making, directed to six agencies and institutions.[26] As EMR recognizes in its Supplement, the agencies' responses clearly demonstrate the lack of interest on their part to initiate a proceeding or inquiry at this

[23] *RF Report and Order II, supra* at 15128.

[24] EMR Application for Review at n. 23.

[25] In establishing our most recent guidelines, we relied primarily on the recommendations of the NCRP and federal health and safety agencies. See, *RF Report and Order II, supra.* While EMR decries the withdrawal of the NCRP from this field, we note that the NCRP has recently decided to reconstitute its subcommittee that deals with RF exposure issues. The FCC is a collaborating organization of the NCRP. FCC staff also participates in international activities related to RF exposure, including those sponsored by the World Health Organization.

[26] *See* n. 12, *supra.* According to its Supplement, only four of six agencies responded to EMR's solicitation.

time.[27] EMR concludes from these responses that this Commission is compelled to action. We believe, however, that these responses affirm OET's determination that other more expert agencies, which are at least as well informed at the FCC, are not inclined to action at this time, and that there is no glaring flaw in their decision making and no compelling evidence of which we are uniquely aware that suggests to us that a rule making or inquiry is warranted at this time. We note, significantly, that these letters do demonstrate that some of these agencies are continuing to monitor literature and conduct research in the area, which supports the premise upon which our own determination is based.

13. As an incidental matter, in response to EMR's assertions regarding the recommendations for Commission action in the 2001 GAO Report, we note that the Commission has, in fact, revised testing procedures for mobile and portable devices, as indicated in paragraph 2, above, and that OET staff and FDA staff have worked together on the matter of accounting for measurement uncertainty in testing for RF exposure, as reflected in the recent revisions to the on the joint FDA/FCC website on RF Safety (<www.fcc.gov/oet/rfsafety>). Each of these actions reflects the Commission's continuing involvement with other agencies in areas related to the regulation of RF exposure.

ORDERING CLAUSES

14. Accordingly, IT IS ORDERED That pursuant to Section 4(i) and 4(j) of the Communications Act of 1934, as amended (47 U.S.C. §§ 154(i), 154(j)), the Application for Review filed by EMR Network IS DENIED.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

[27] The EPA letter, *supra*, is an informal response by an individual without authority to speak for the agency, and merely reiterates information already in the record. The NIH letter, *supra*, indicates its intention to conduct laboratory research of the nature sought by EMR (which, we note, could form the basis for a recommendation for further inquiry or action). The NIOSH letter, *supra*, asserts that agency's past and continuing review of RF radiation bioeffects literature worldwide. The OSHA letter, *supra*, remarks that its interest is limited to the workplace (which is included in our RF exposure guidelines), and that it has and will continue to work with other agencies and professional organizations to monitor the possible health effects from RF exposure.

STATEMENT OF COMMISSIONER
MICHAEL J. COPPS

RE: *EMR Network Petition for Inquiry To Consider Amendment of Parts 1 and 2 Regarding Environmental Effects of Radiofrequency Radiation (Report and Order).*

I write separately to stress that in this Order the Commission reaffirms its commitment to monitor developments related to the biological effects of RF energy. Should additional scientific evidence emerge, concerned parties should bring such evidence to our attention. Evidence of this type could mean that the Commission would have a "basis for opening a rulemaking or fact-finding proceeding."[1]

[1] *Order* at ¶ 11.