



Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

January 23, 2009

TVA-BFN-TS-418
TVA-BFN-TS-431

10 CFR 50.90

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop OWFN, P1-35
Washington, D. C. 20555-0001

In the Matter of)
Tennessee Valley Authority)

Docket Nos. 50-259
50-260
50-296

BROWNS FERRY NUCLEAR PLANT (BFN) – UNITS 1, 2, AND 3 – TECHNICAL SPECIFICATIONS (TS) CHANGES TS-418 AND TS-431 – EXTENDED POWER UPRATE (EPU) – RESPONSE TO ROUND 23 REQUEST FOR ADDITIONAL INFORMATION (RAI) EMCB.203/164 REGARDING STEAM DRYER SIGNAL PROCESSING (TAC NOS. MD5262, MD5263, AND MD5264)

By letters dated June 28, 2004 and June 25, 2004 (ADAMS Accession Nos. ML041840109 and ML041840301), TVA submitted license amendment applications to NRC for the EPU of BFN Unit 1 and BFN Units 2 and 3, respectively. The proposed amendments would change the operating licenses to increase the maximum authorized core thermal power level of each reactor by approximately 14 percent to 3952 megawatts.

Enclosure 1 provides the response for draft Round 23 RAI EMCB.203/164 (Unit 2 plots). The responses to three draft Round 23 RAIs associated with submodeling (EMCB.201/162, EMC.B.166, and EMC.B.167) were provided by letter dated January 9, 2009. The responses to three draft Round 23 RAIs regarding signal processing associated with the steam dryer analyses for EPU (EMCB.202/163, EMC.B.203/164 - Unit 1 plots, and EMC.B.165) were provided by letter dated January 16, 2009. The schedule for providing the response to the remaining draft Round 23 RAI (EMCB.204/168) is being developed and will be discussed with the NRC staff.

Note that Enclosure 1 contains information that Continuum Dynamics, Inc. (CDI) considers to be proprietary in nature and subsequently, pursuant to 10 CFR 2.390(a)(4), CDI requests that such information be withheld from public disclosure. Enclosure 3 provides an affidavit from CDI supporting this request. Enclosure 2 contains the redacted version of the proprietary enclosure with the CDI proprietary material removed, which is suitable for public disclosure.

D030
NRR

U.S. Nuclear Regulatory Commission
Page 2
January 23, 2009

TVA has determined that the additional information provided by this letter does not affect the no significant hazards considerations associated with the proposed TS changes. The proposed TS changes still qualify for a categorical exclusion from environmental review pursuant to the provisions of 10 CFR 51.22(c)(9).

No new regulatory commitments are made in this submittal. If you have any questions regarding this letter, please contact me at (256)729-2636.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 23rd day of January, 2009.

Sincerely,



F. R. Godwin
Manager of Licensing
and Industry Affairs

Enclosures:

1. Response to Round 23 Request for Additional Information (RAI) EMC.B.203/164 Regarding Steam Dryer Signal Processing (Proprietary Version)
2. Response to Round 23 Request for Additional Information (RAI) EMC.B.203/164 Regarding Steam Dryer Signal Processing (Non-proprietary Version)
3. CDI Affidavit

U.S. Nuclear Regulatory Commission
Page 3
January 23, 2009

Enclosures

cc (Enclosures):

State Health Officer
Alabama State Department of Public Health
RSA Tower - Administration
Suite 1552
P.O. Box 303017
Montgomery, Alabama 36130-3017

Ms. Eva Brown, Project Manager
U.S. Nuclear Regulatory Commission
(MS 08G9)
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852-2739

Eugene F. Guthrie, Branch Chief
U.S. Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, Georgia 30303-8931

NRC Resident Inspector
Browns Ferry Nuclear Plant
10833 Shaw Road
Athens, Alabama 35611-6970

ENCLOSURE 2

**TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNITS 1, 2, AND 3**

**TECHNICAL SPECIFICATIONS (TS) CHANGES TS-431 AND TS-418
EXTENDED POWER UPRATE (EPU)**

**RESPONSE TO ROUND 23 REQUEST FOR ADDITIONAL INFORMATION (RAI)
EMCB.203/164 REGARDING STEAM DRYER SIGNAL PROCESSING**

(NON-PROPRIETARY VERSION)

Attached is the non-proprietary version of the Response to Round 23 RAI EMCB.203/164 Regarding Steam Dryer Signal Processing.

NON-PROPRIETARY INFORMATION

NRC RAI EMCB.203/164 (Units 1 and 2)

In response to EMCB.200/157., TVA presents detailed discussion of signal conditioning in six steps. Provide plots of strain gage signals (autospectra, cross spectra, coherence, and phase) and computed [[] throughout the procedure described in their RAI response (prior to step 1, after step 1, after step 2, after step 4 and after step 6), for current license thermal power (CLTP) and Low Flow (LF) signals, for Units 1 and 2.

TVA Response to EMCB.203/164 (Units 1 and 2)

The requested plots for Unit 2 are listed and provided below. The requested plots for Unit 1 were provided by submittal dated January 16, 2009, "Response to Round 23 RAI Regarding Steam Dryer Signal Processing."

Prior to Step 1: Measured Data

Figure EMCB.164-	Contents
2.1a	Power spectral density (PSD) of main steam line (MSL) A upper and lower for CLTP and electrical interference check (EIC)
2.1b	PSD of main steam line B upper and lower for CLTP and EIC
2.1c	PSD of main steam line C upper and lower for CLTP and EIC
2.1d	PSD of main steam line D upper and lower for CLTP and EIC
2.2a	Cross spectra and coherence of main steam line A for CLTP and EIC
2.2b	Cross spectra and coherence of main steam line B for CLTP and EIC
2.2c	Cross spectra and coherence of main steam line C for CLTP and EIC
2.2d	Cross spectra and coherence of main steam line D for CLTP and EIC
2.3a	Phase of main steam line A for CLTP and EIC
2.3b	Phase of main steam line B for CLTP and EIC
2.3c	Phase of main steam line C for CLTP and EIC
2.3d	Phase of main steam line D for CLTP and EIC
[[]]
[[]]
[[]]
[[]]
2.5a	PSD of main steam line A upper and lower for LF and EIC
2.5b	PSD of main steam line B upper and lower for LF and EIC
2.5c	PSD of main steam line C upper and lower for LF and EIC
2.5d	PSD of main steam line D upper and lower for LF and EIC
2.6a	Cross spectra and coherence of main steam line A for Low Flow (LF) and EIC
2.6b	Cross spectra and coherence of main steam line B for LF and EIC
2.6c	Cross spectra and coherence of main steam line C for LF and EIC
2.6d	Cross spectra and coherence of main steam line D for LF and EIC
2.7a	Phase of main steam line A for LF and EIC
2.7b	Phase of main steam line B for LF and EIC
2.7c	Phase of main steam line C for LF and EIC
2.7d	Phase of main steam line D for LF and EIC

NON-PROPRIETARY INFORMATION

Figure EMCB.164-	Contents
[[]]
[[]]
[[]]
[[]]

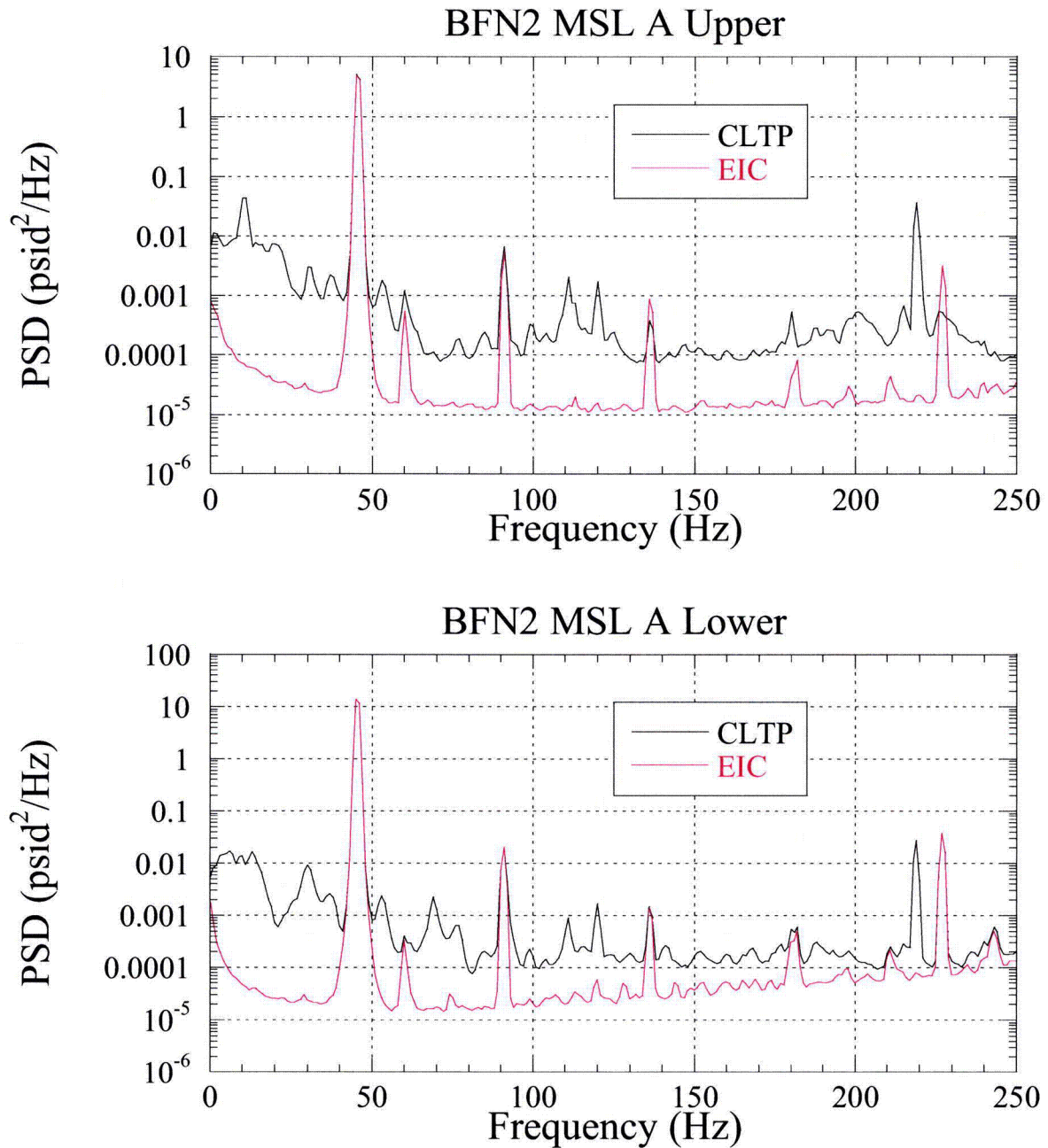


Figure EMCB.164-2.1a: Autospectra of measured data for BFN2 main steam line A: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and corresponding EIC (red).

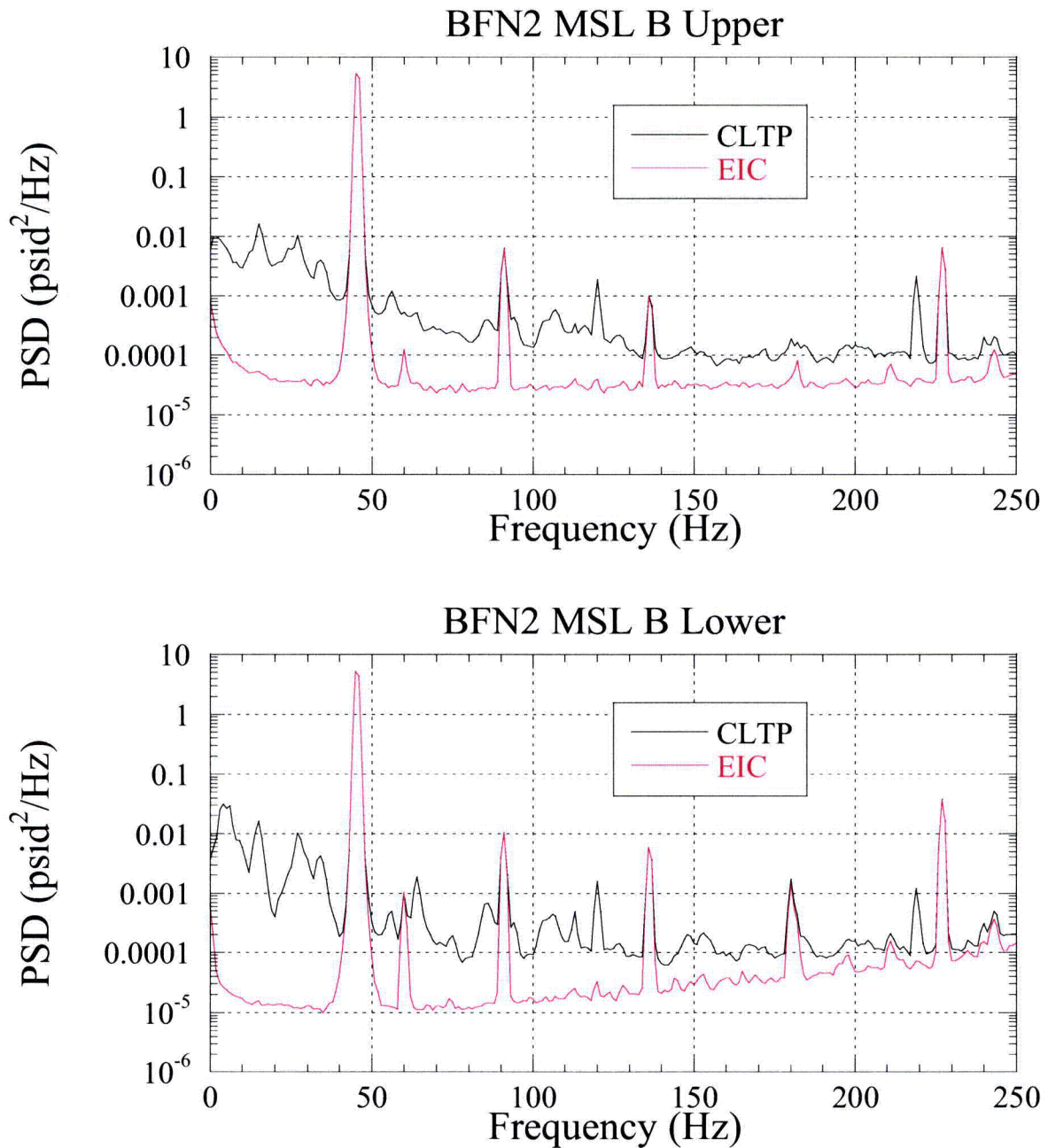


Figure EMCB.164-2.1b: Autospectra of measured data for BFN2 main steam line B: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and corresponding EIC (red).

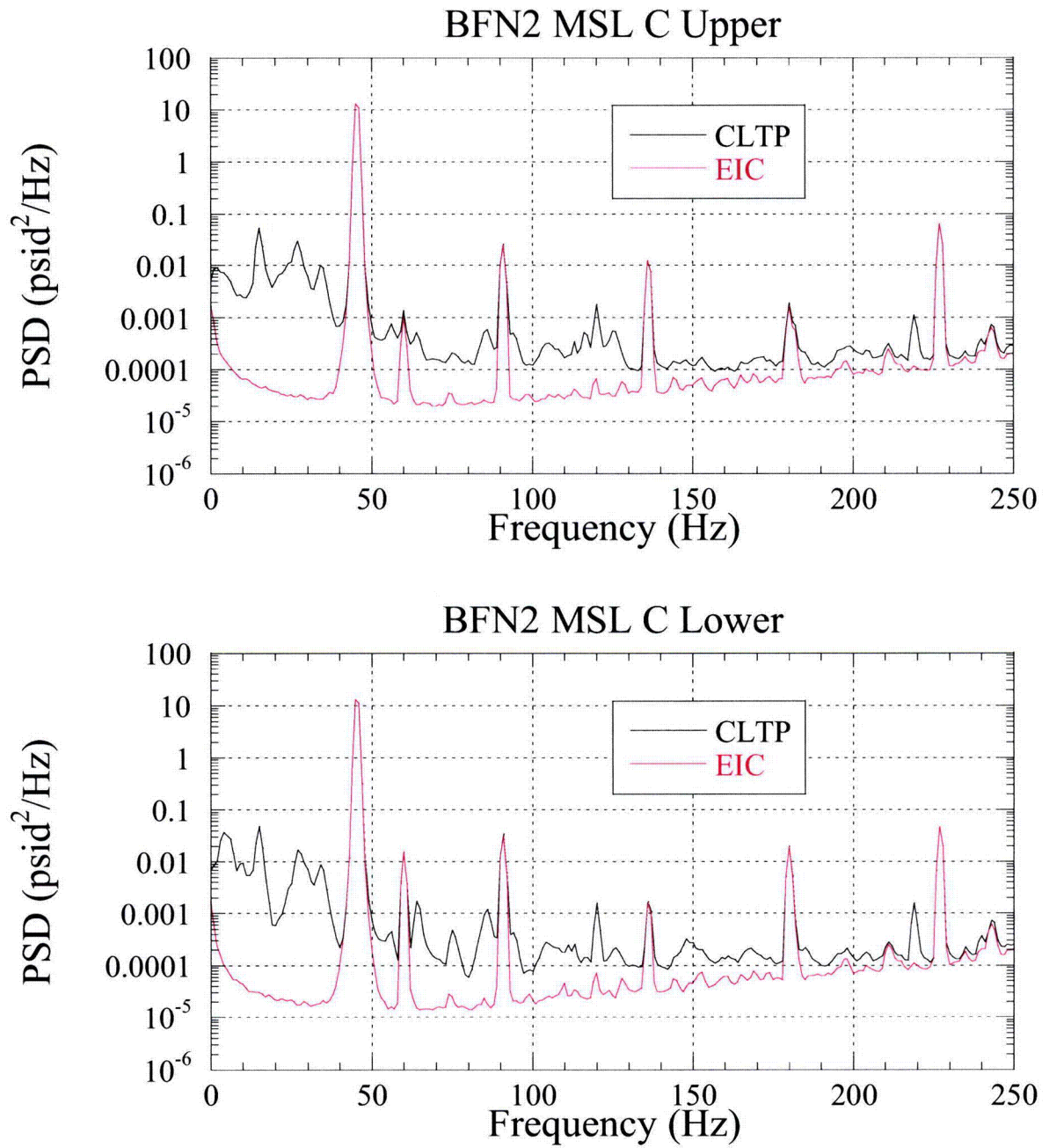


Figure EMC.B.164-2.1c: Autospectra of measured data for BFN2 main steam line C: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and corresponding EIC (red).

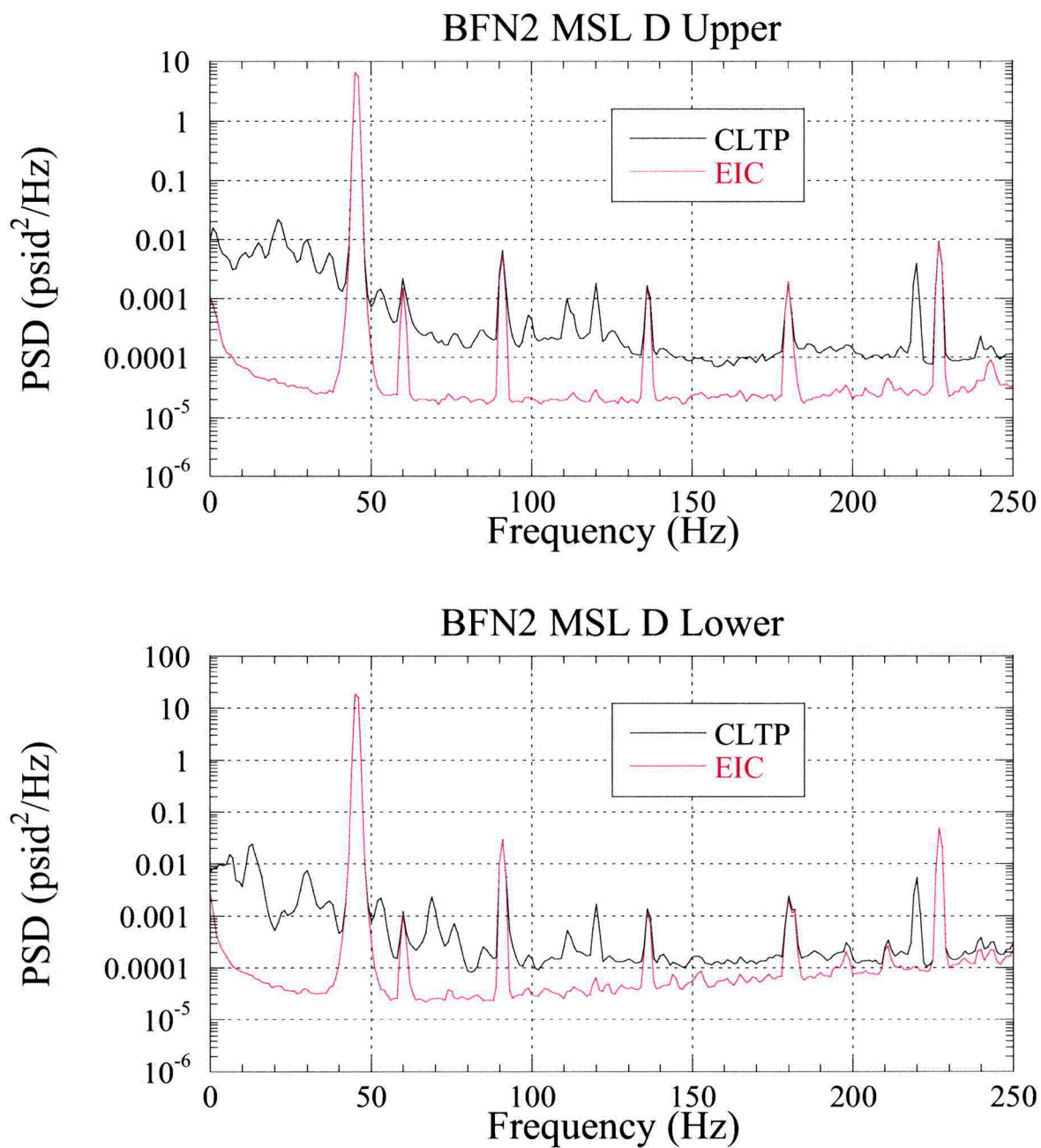


Figure EMCB.164-2.1d: Autospectra of measured data for BFN2 main steam line D: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and corresponding EIC (red).

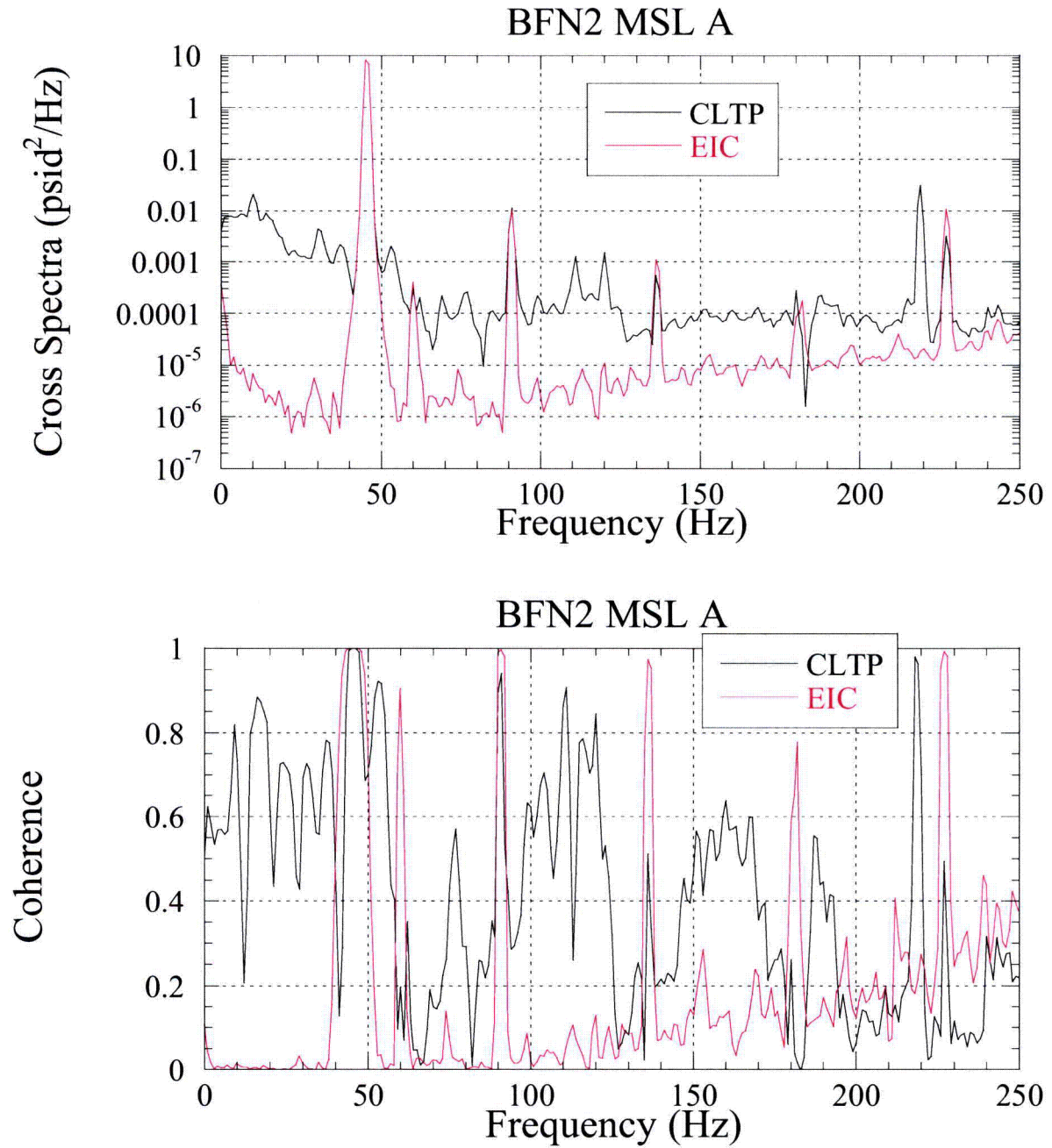


Figure EMCB.164-2.2a: Cross spectra (top) and coherence (bottom) of measured data for BFN2 main steam line A, for CLTP conditions (black) and corresponding EIC (red).

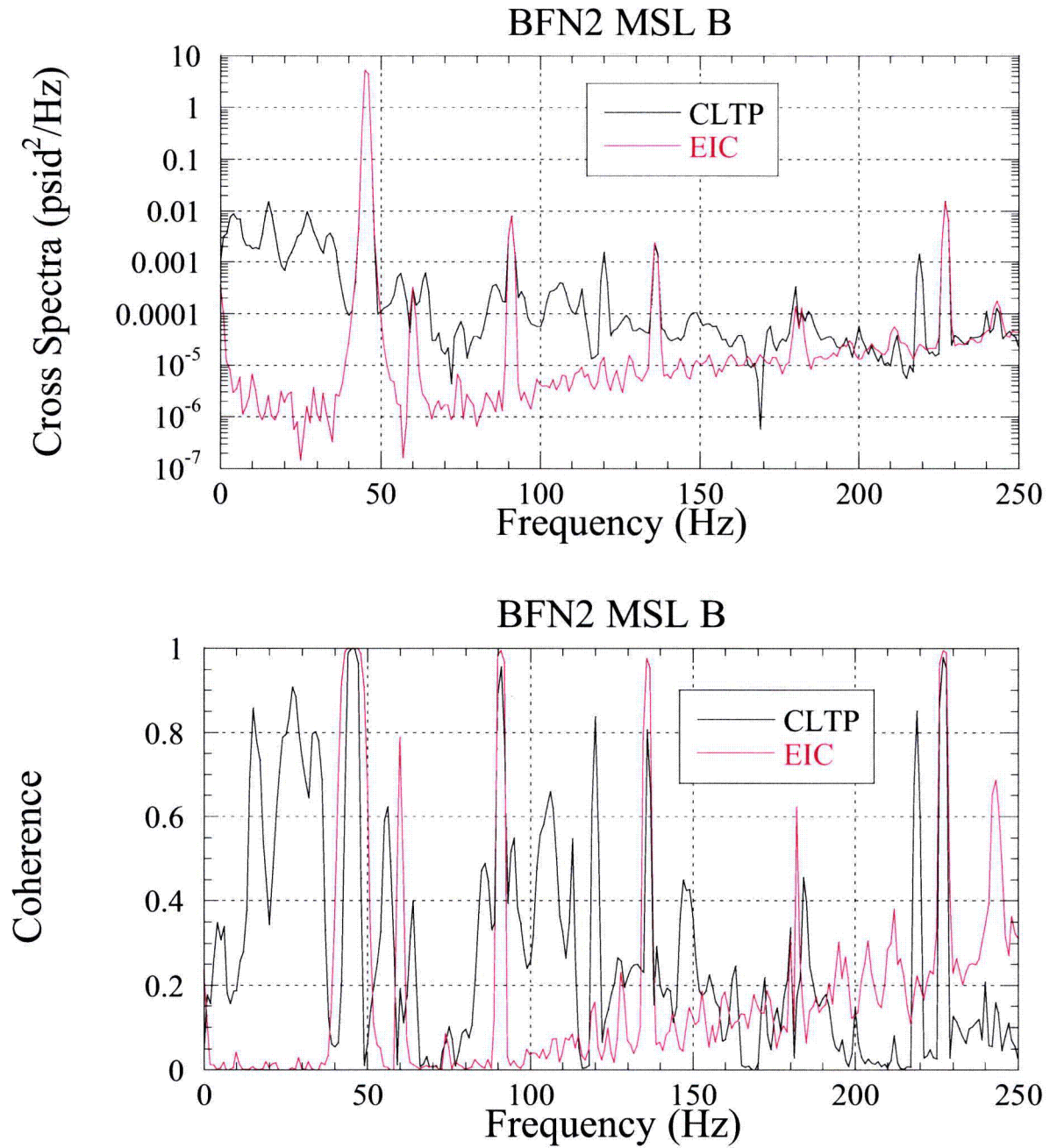


Figure EMC.B.164-2.2b: Cross spectra (top) and coherence (bottom) of measured data for BFN2 main steam line B, for CLTP conditions (black) and corresponding EIC (red).

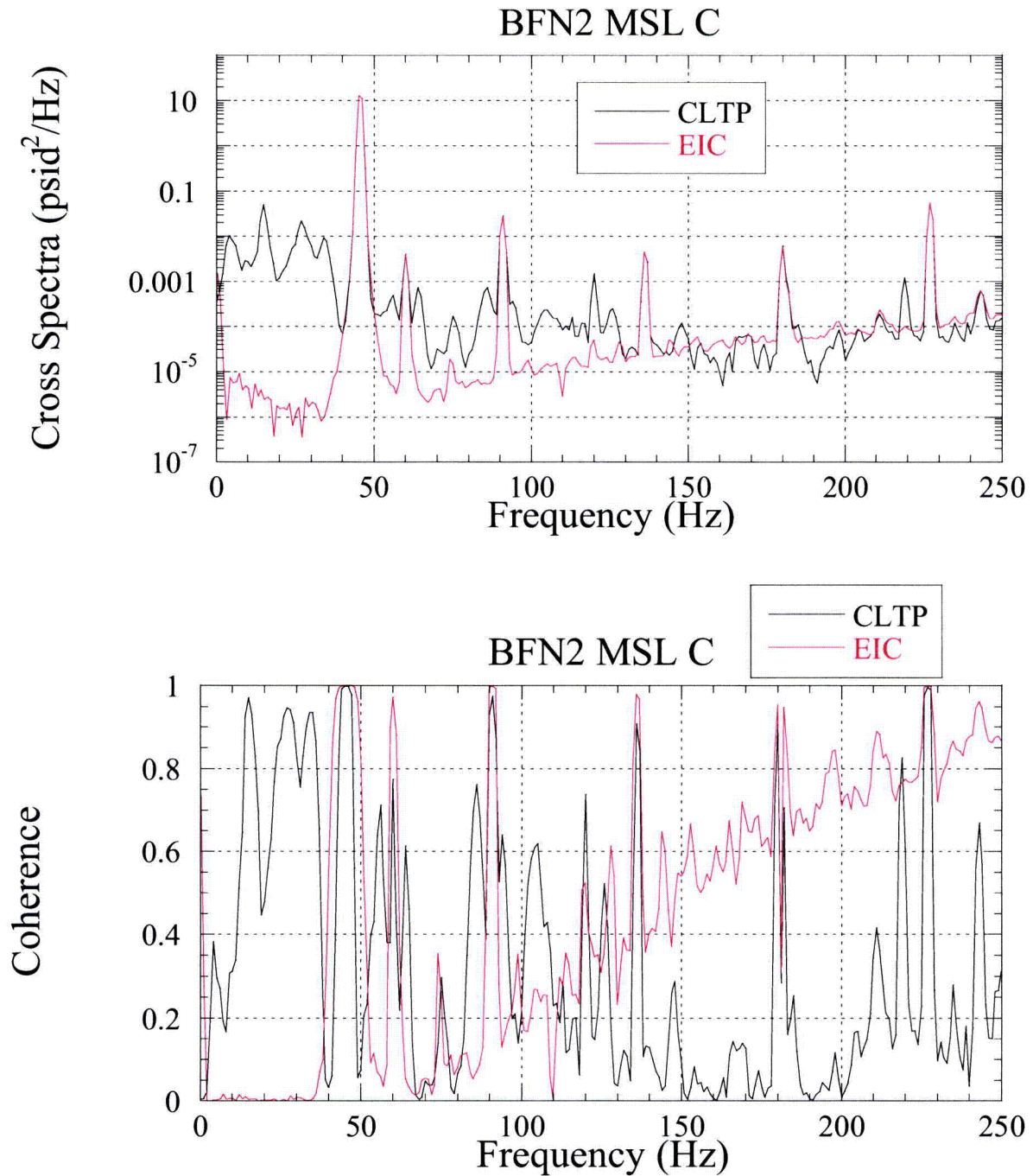


Figure EMC.B.164-2.2c: Cross spectra (top) and coherence (bottom) of measured data for BFN2 main steam line C, for CLTP conditions (black) and corresponding EIC (red).

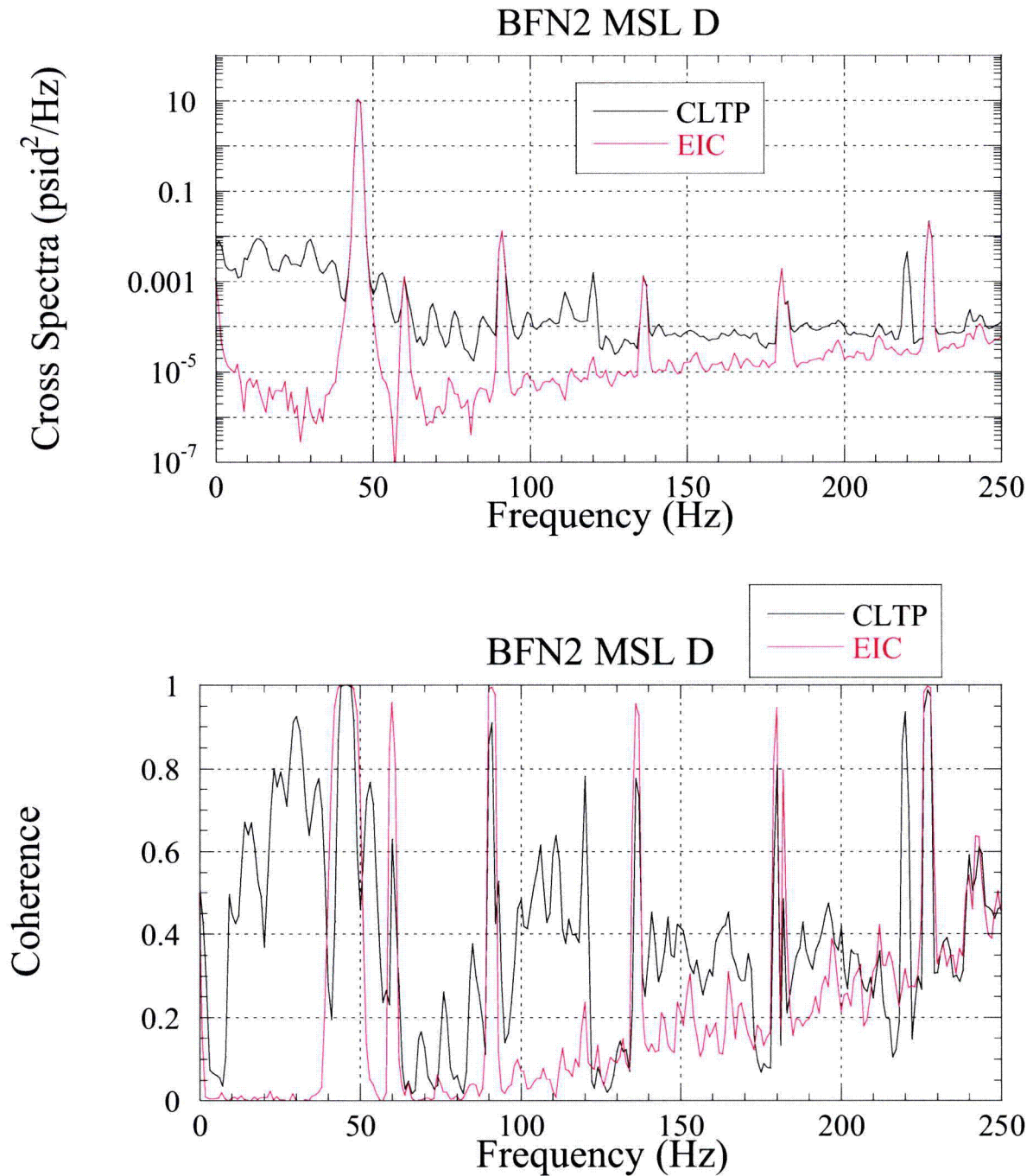


Figure EMCB.164-2.2d: Cross spectra (top) and coherence (bottom) of measured data for BFN2 main steam line D, for CLTP conditions (black) and corresponding EIC (red).

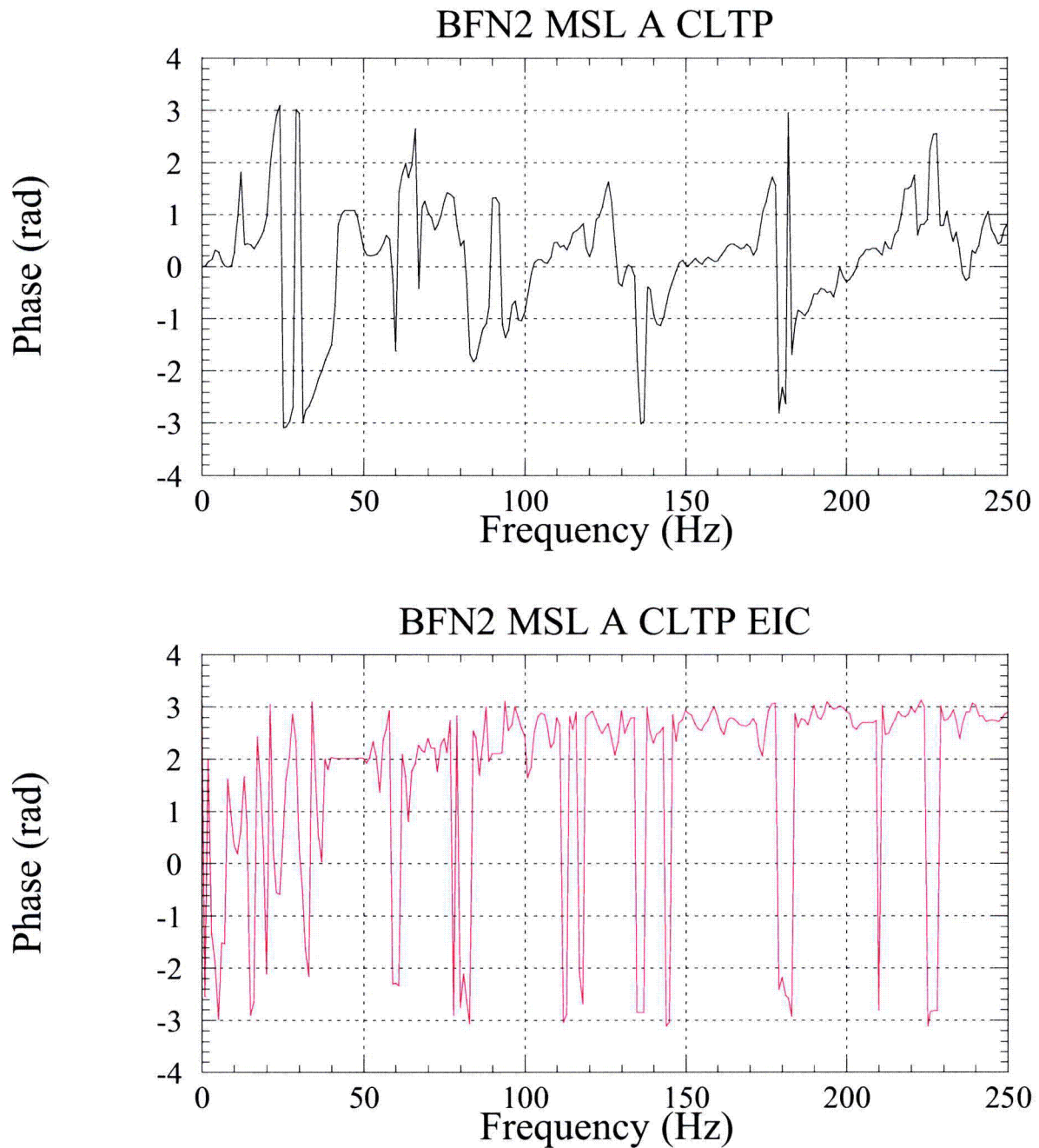


Figure EMCB.164-2.3a: Phase of measured data for BFN2 main steam line A, for CLTP conditions (black, top) and corresponding EIC (red, bottom).

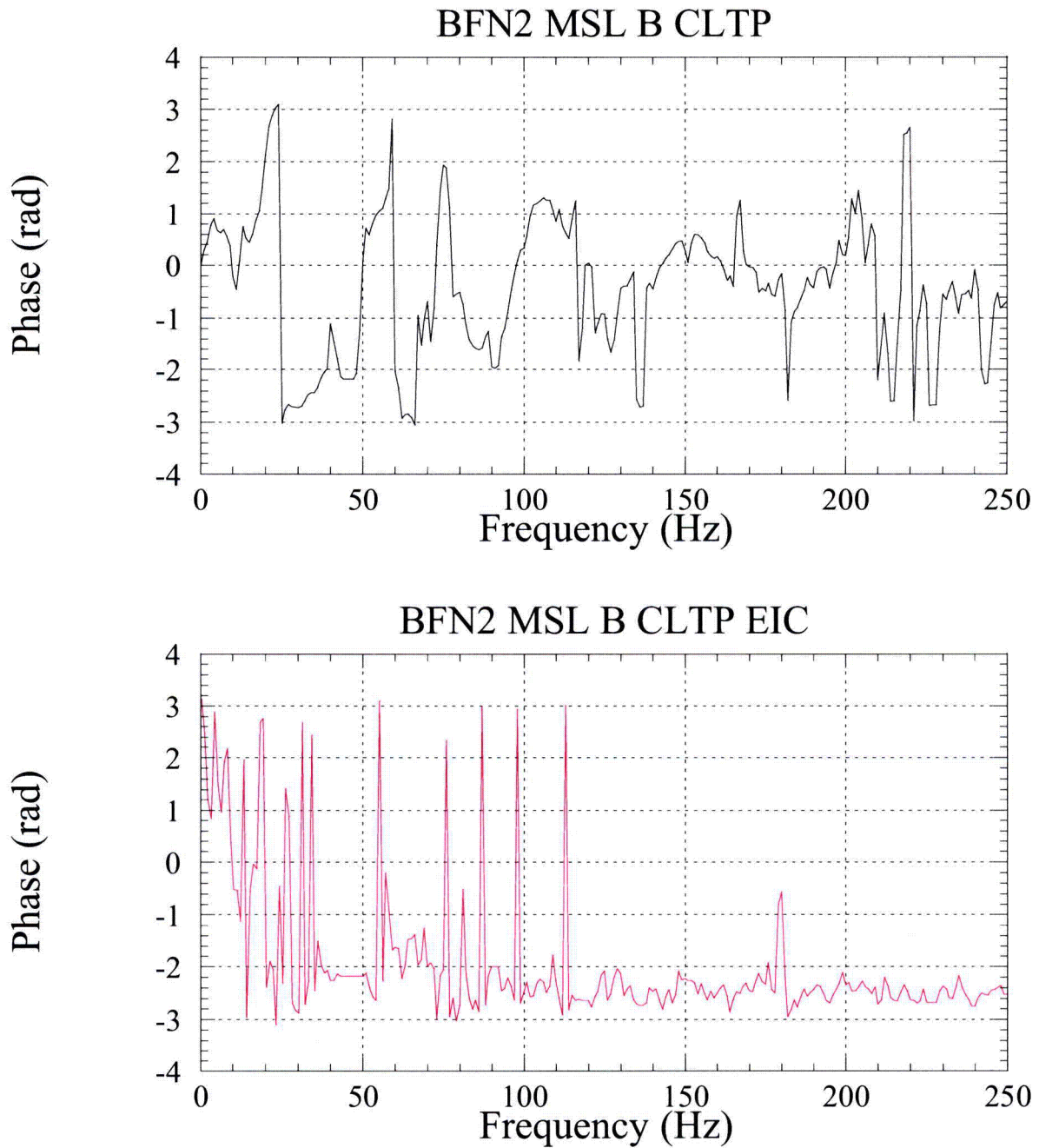


Figure EMC.B.164-2.3b: Phase of measured data for BFN2 main steam line B, for CLTP conditions (black, top) and corresponding EIC (red, bottom).

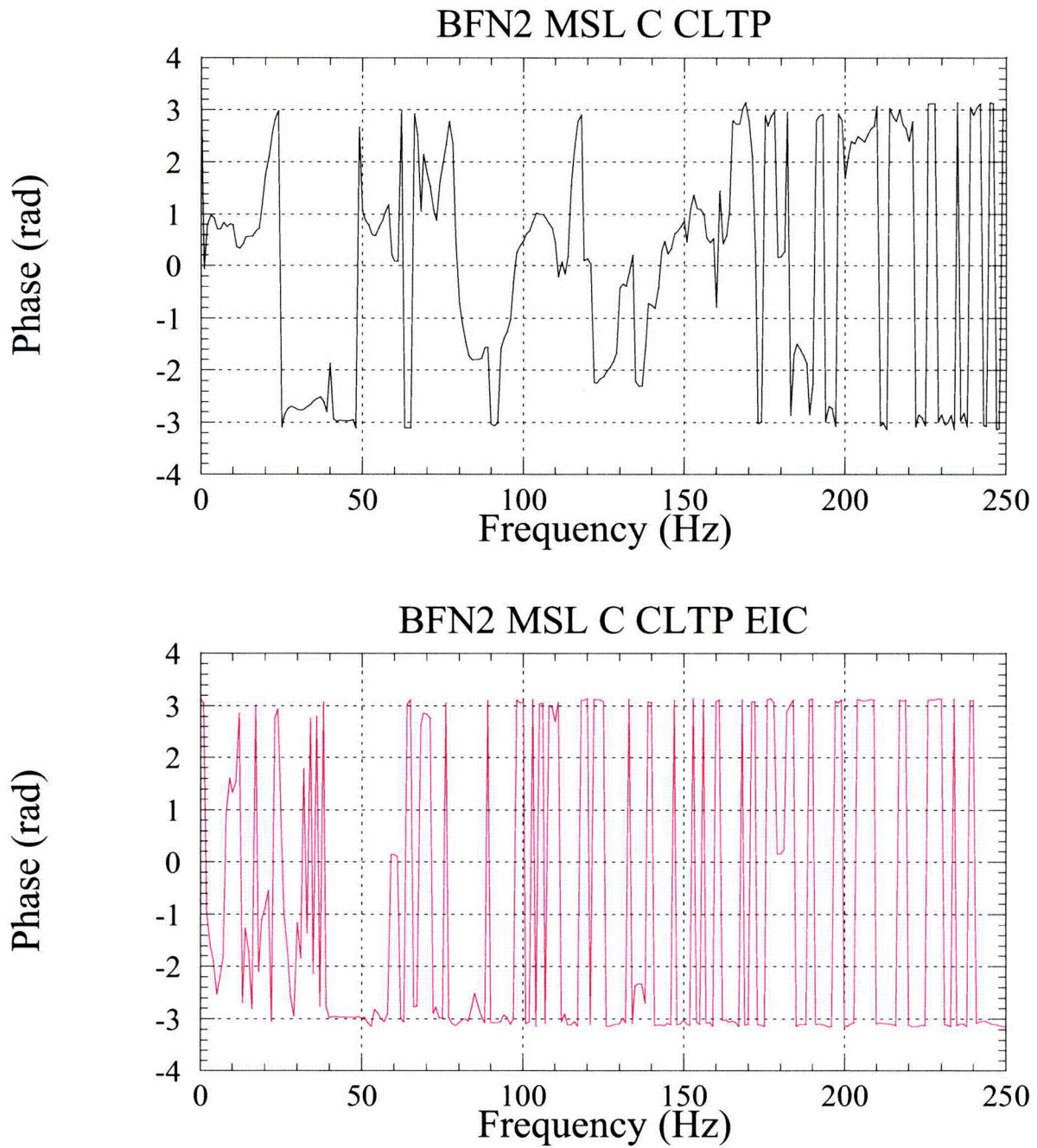


Figure EMC.B.164-2.3c: Phase of measured data for BFN2 main steam line C, for CLTP conditions (black, top) and corresponding EIC (red, bottom).

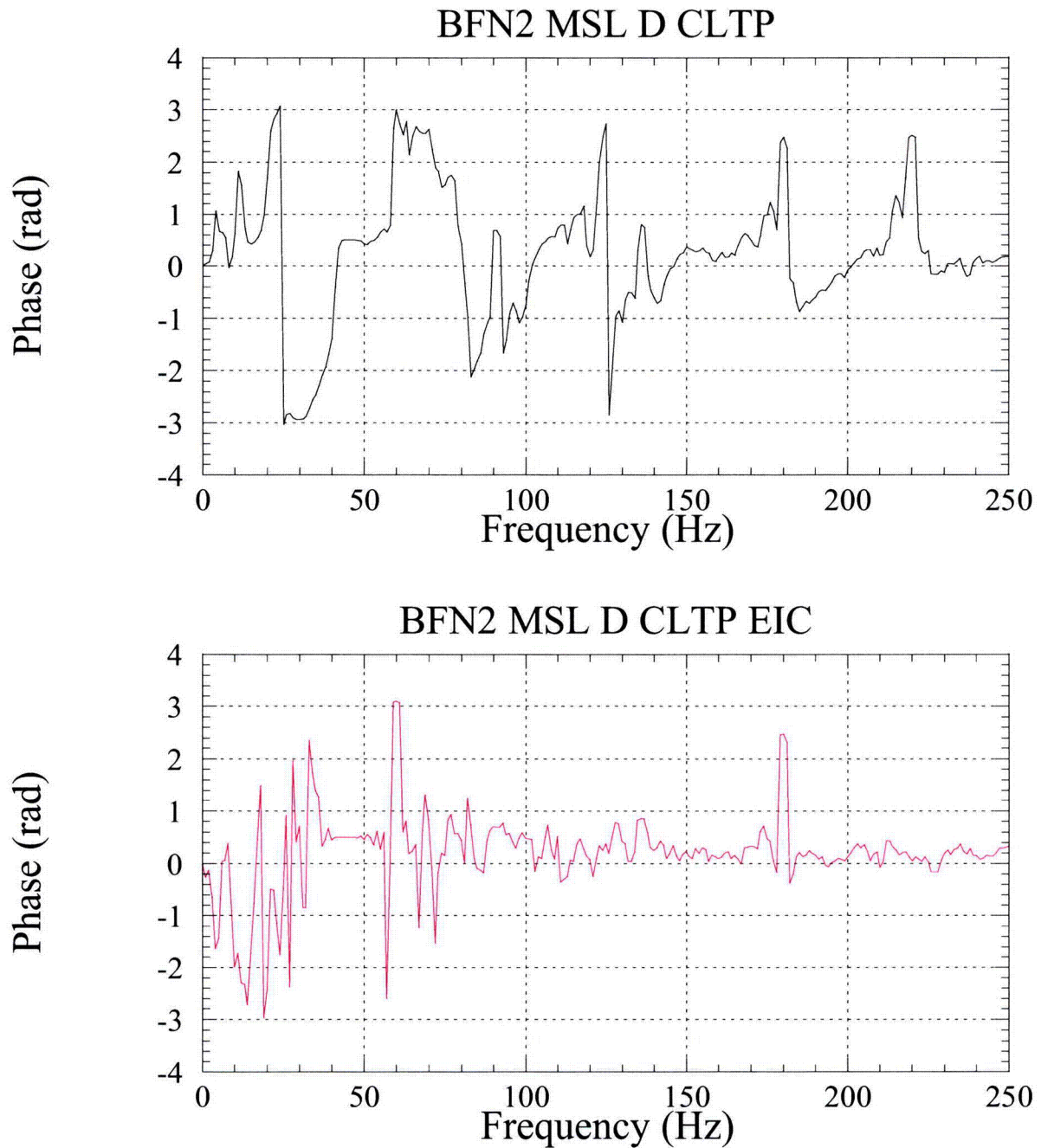


Figure EMCB.164-2.3d: Phase of measured data for BFN2 main steam line D, for CLTP conditions (black, top) and corresponding EIC (red, bottom).

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

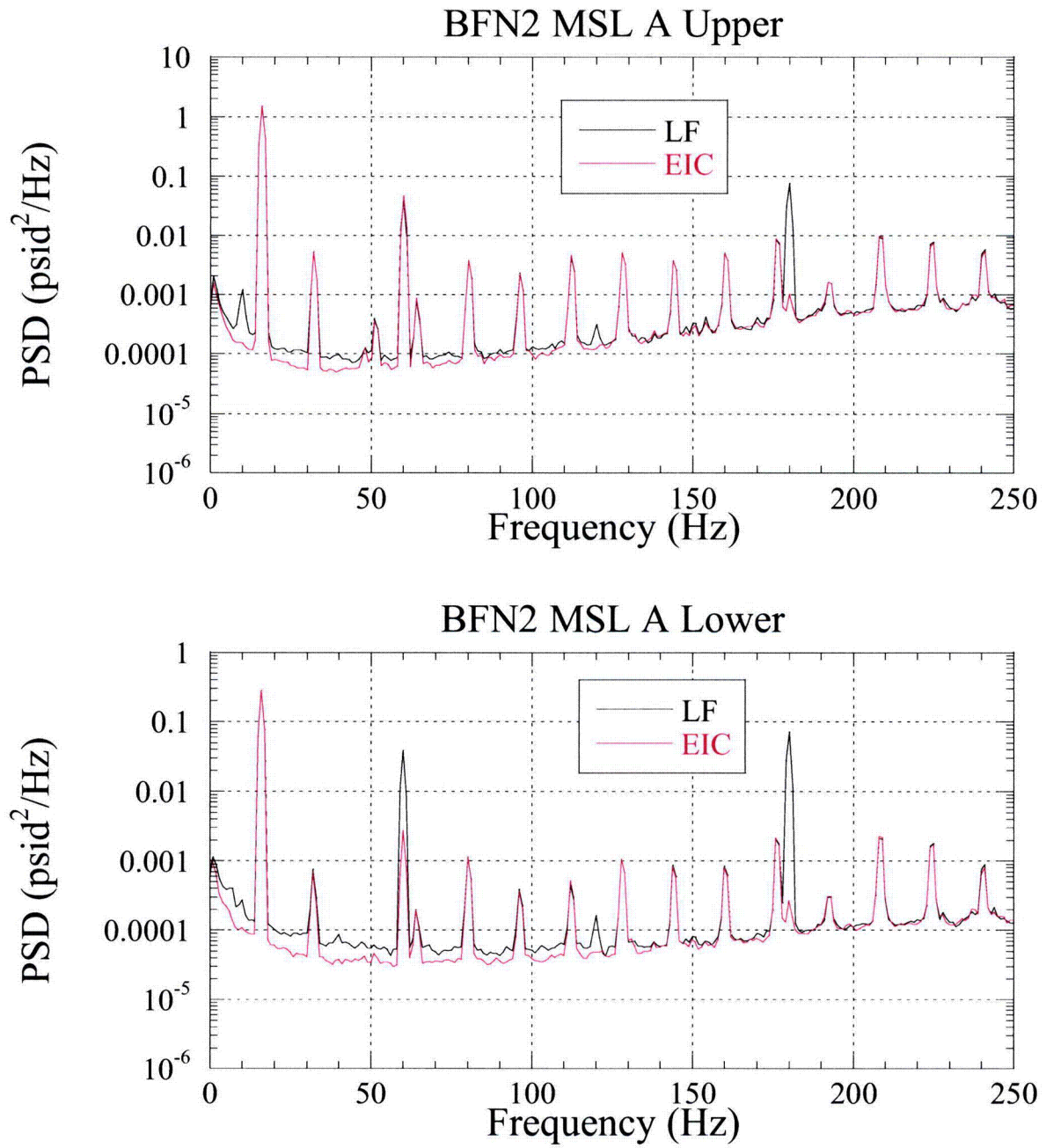


Figure EMC.B.164-2.5a: Autospectra of measured data for BFN2 main steam line A: upper strain gage location (top), lower strain gage location (bottom), for LF conditions (black) and corresponding EIC (red).

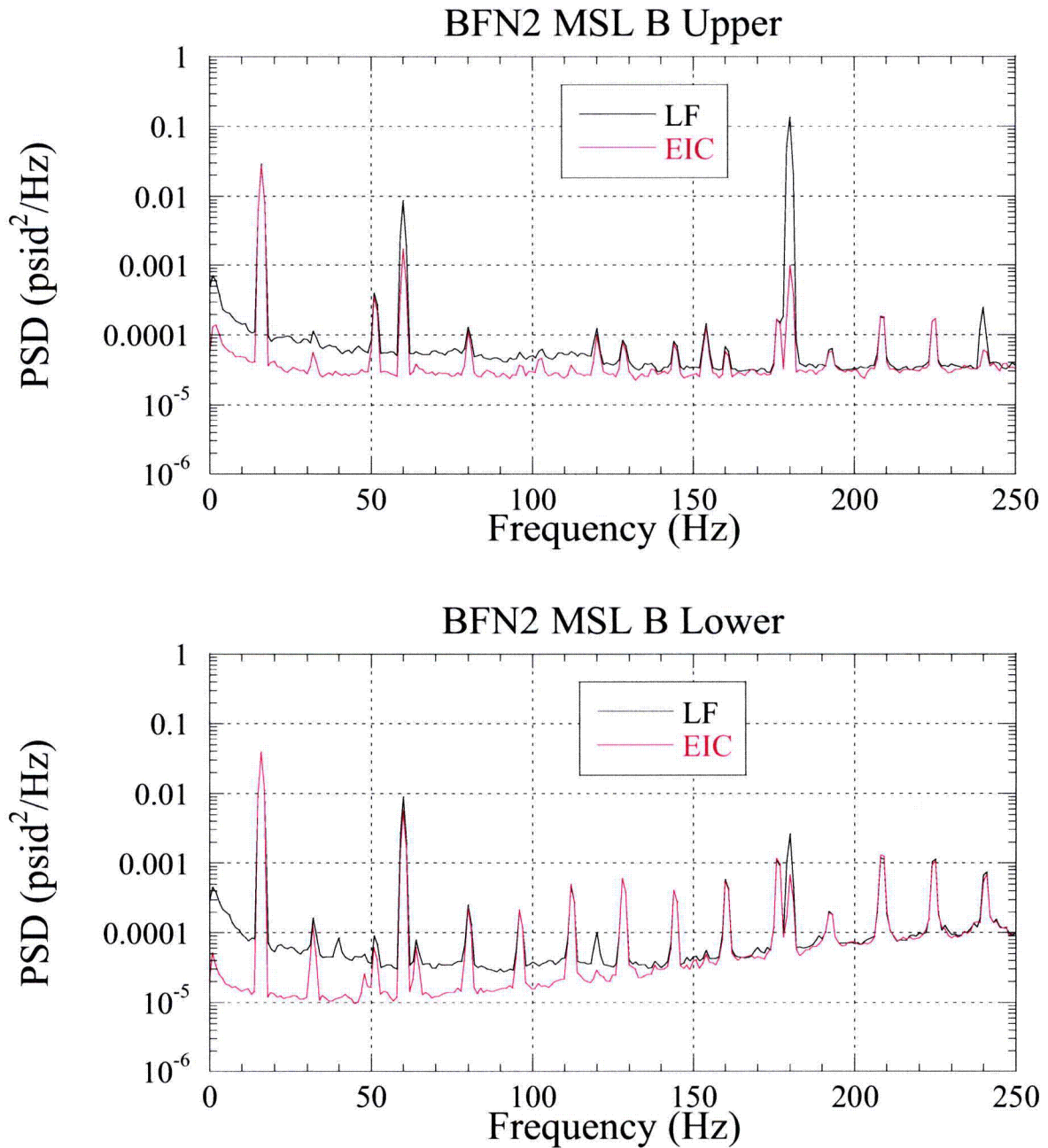


Figure EMCB.164-2.5b: Autospectra of measured data for BFN2 main steam line B: upper strain gage location (top), lower strain gage location (bottom), for LF conditions (black) and corresponding EIC (red).

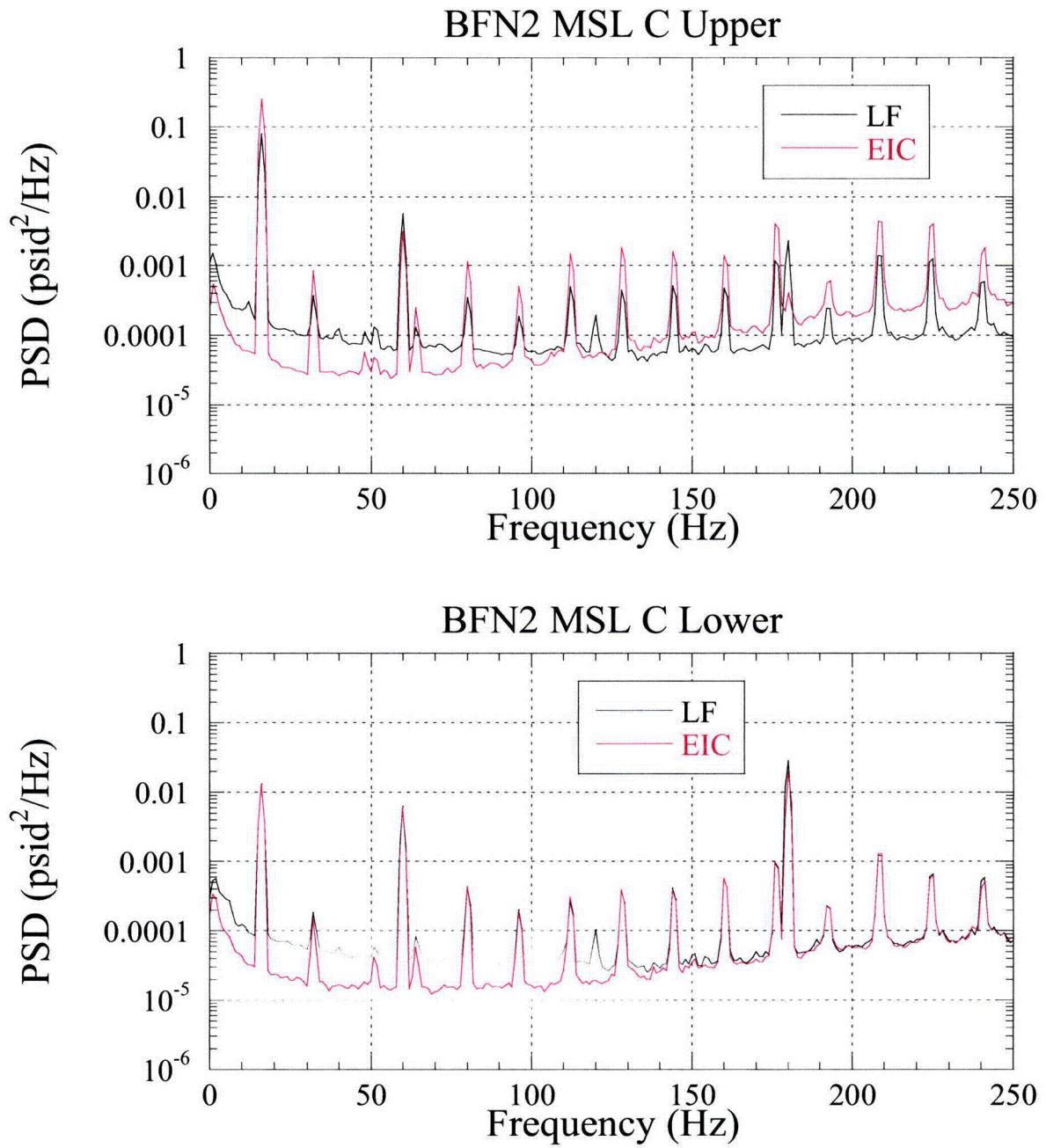


Figure EMCB.164-2.5c: Autospectra of measured data for BFN2 main steam line C: upper strain gage location (top), lower strain gage location (bottom), for LF conditions (black) and corresponding EIC (red).

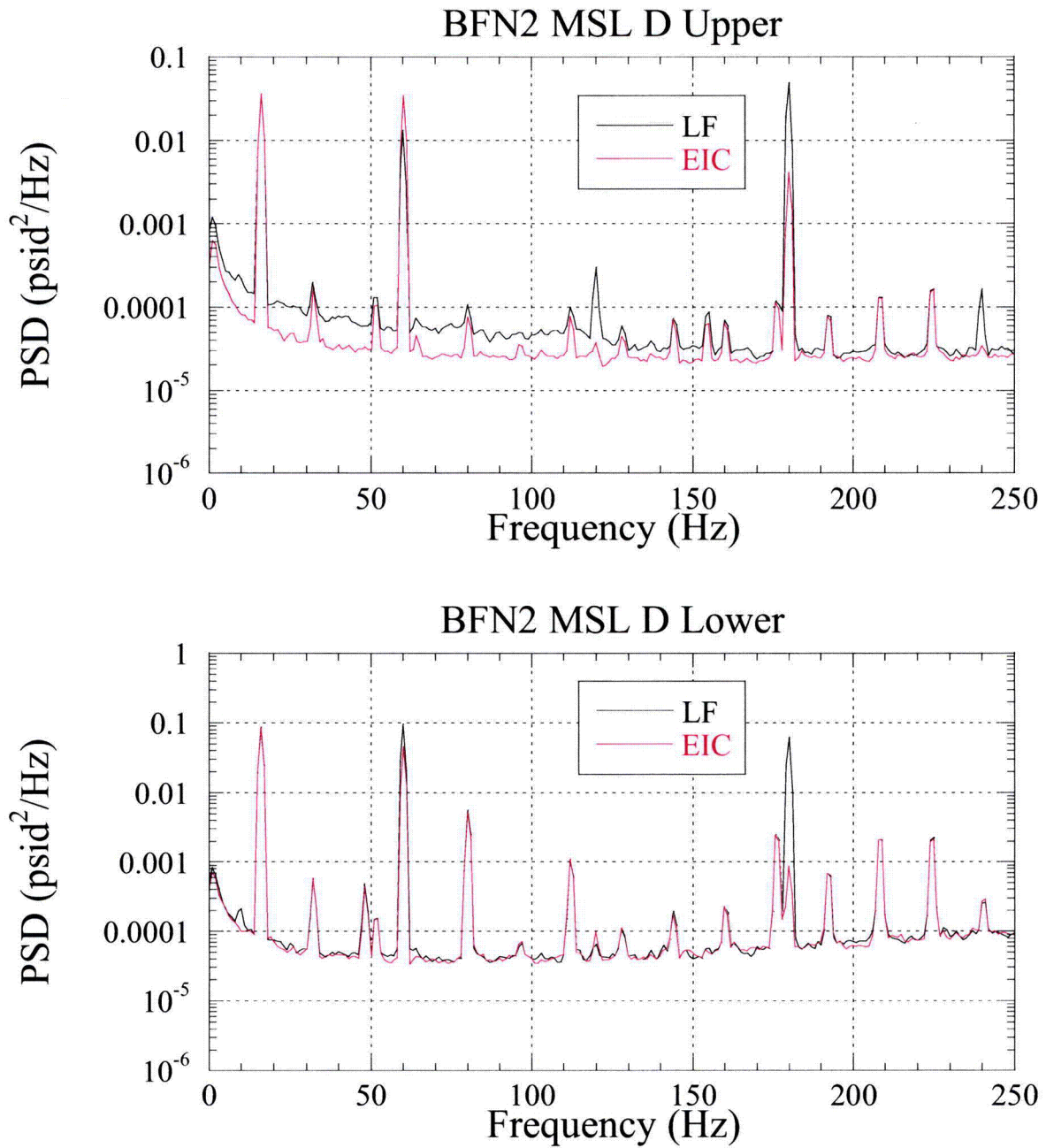


Figure EMCB.164-2.5d: Autospectra of measured data for BFN2 main steam line D: upper strain gage location (top), lower strain gage location (bottom), for LF conditions (black) and corresponding EIC (red).

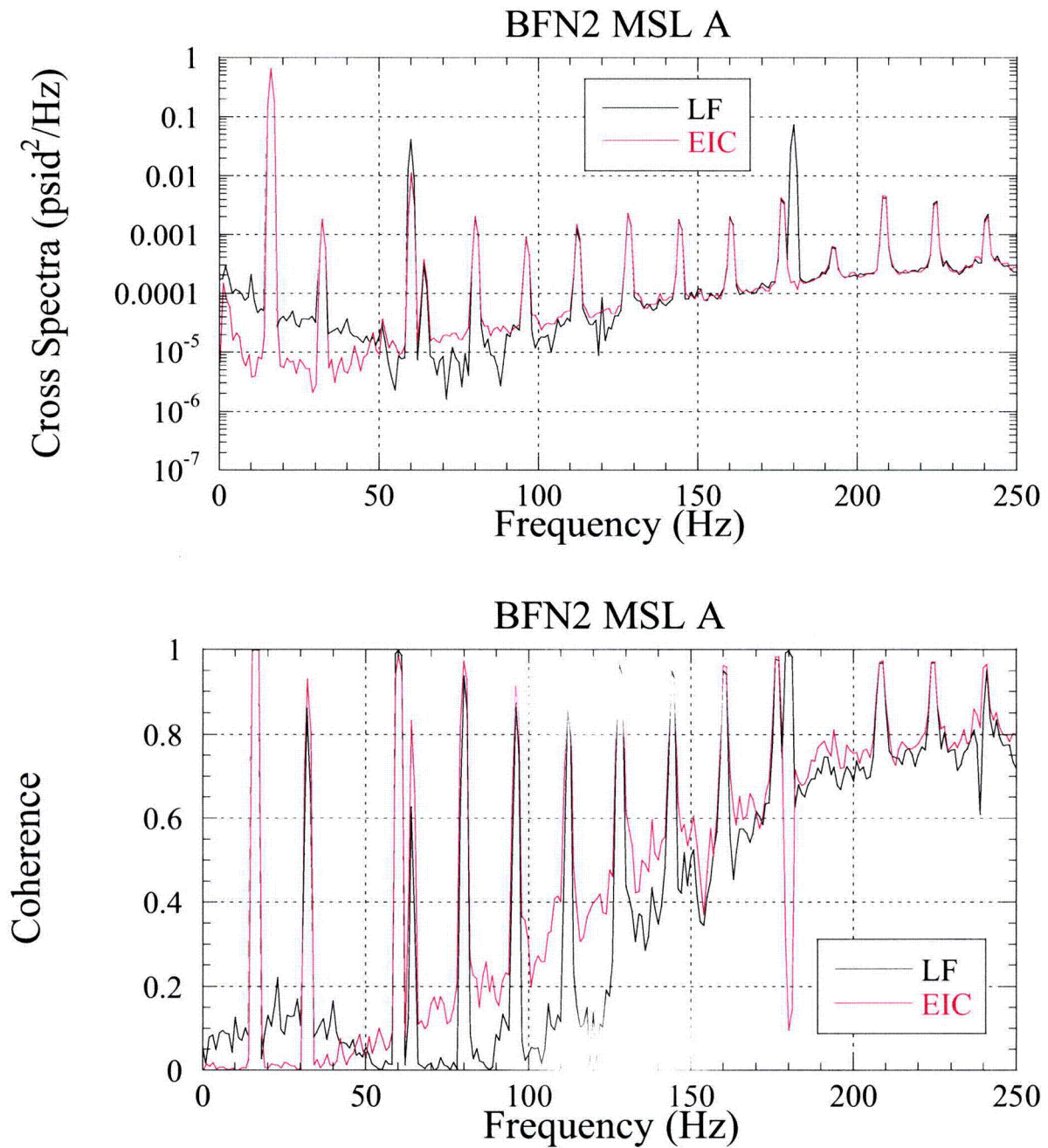


Figure EMCB.164-2.6a: Cross spectra (top) and coherence (bottom) of measured data for BFN2 main steam line A, for LF conditions (black) and corresponding EIC (red).

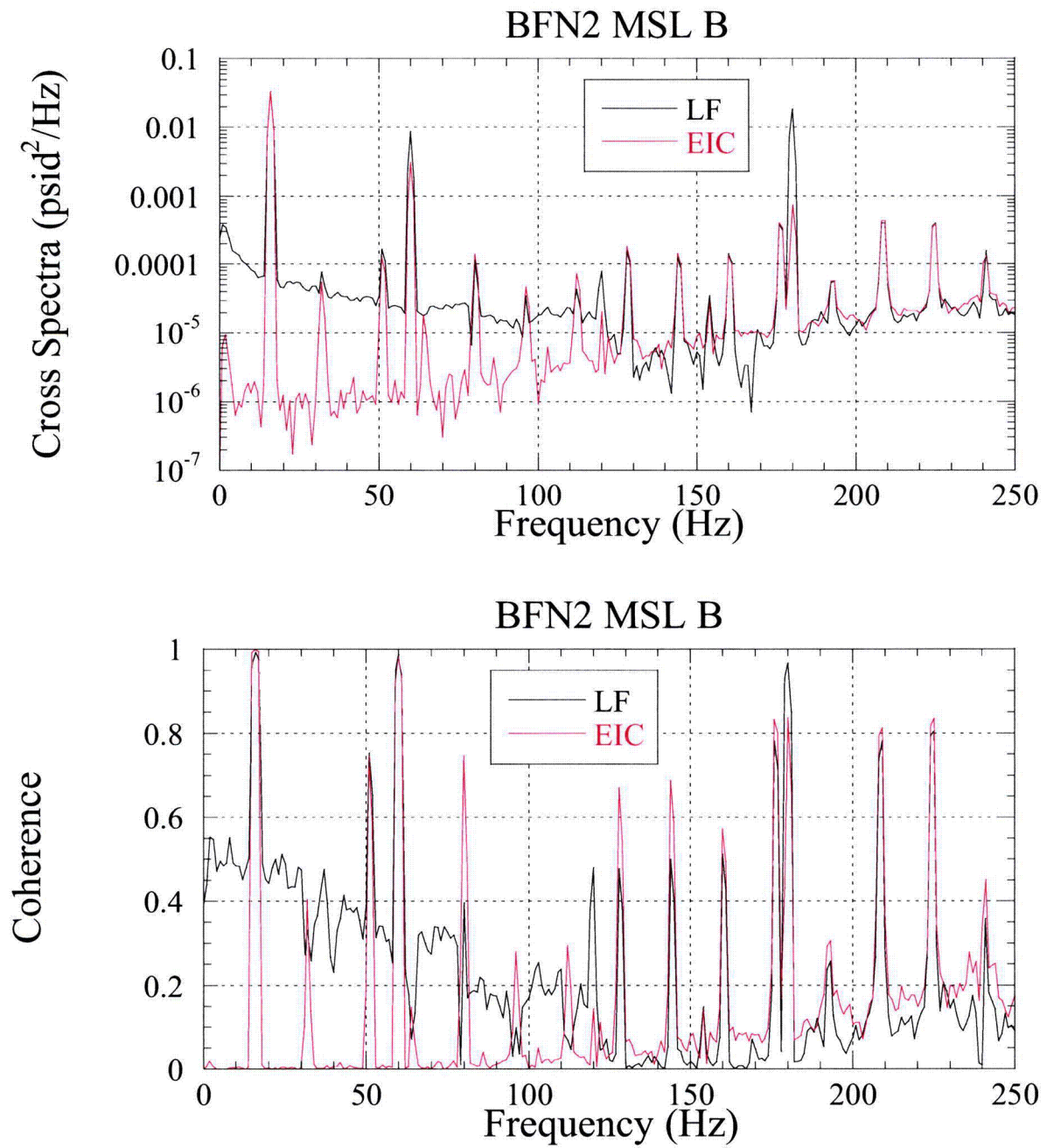


Figure EMCB.164-2.6b: Cross spectra (top) and coherence (bottom) of measured data for BFN2 main steam line B, for LF conditions (black) and corresponding EIC (red).

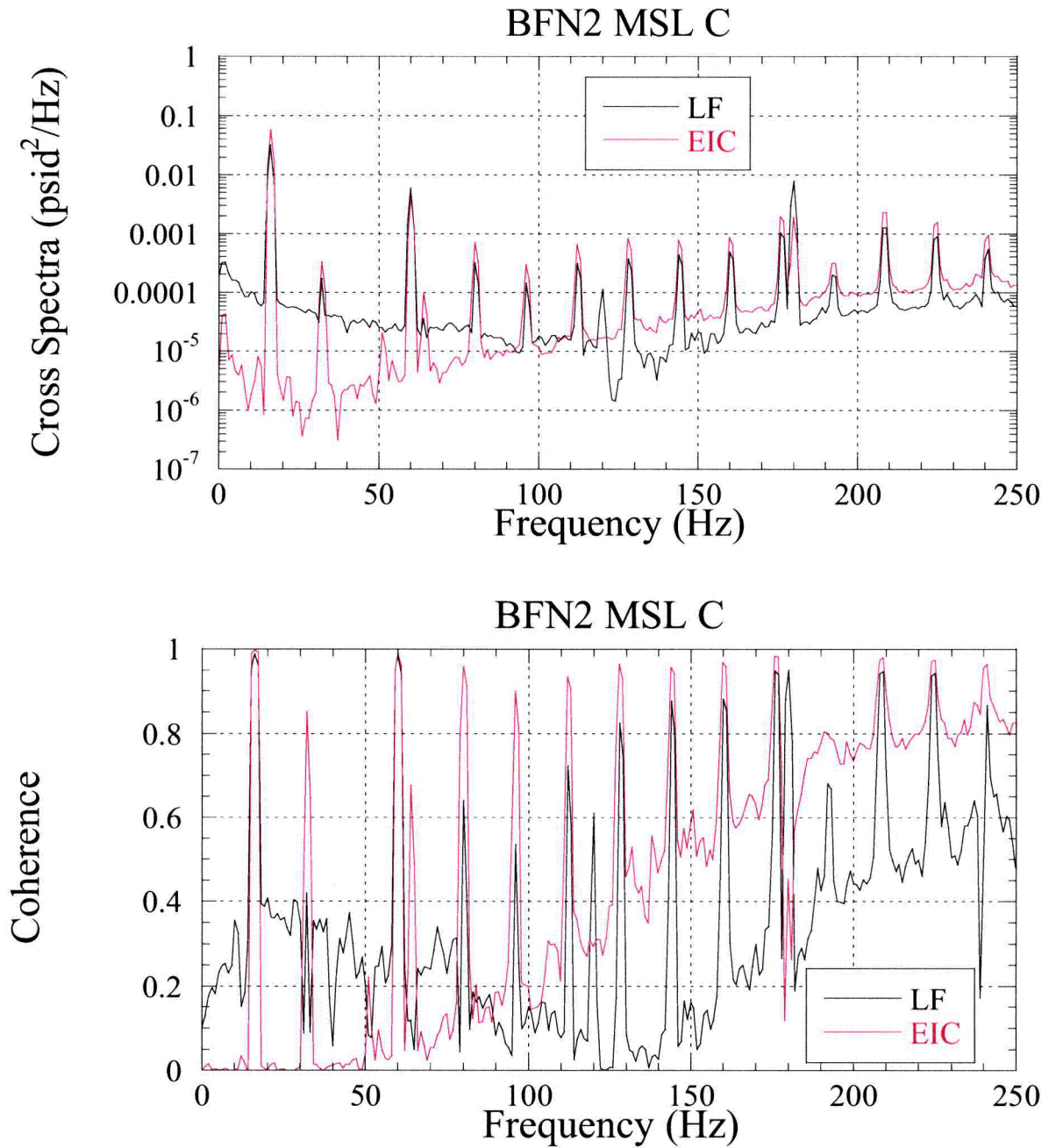


Figure EMC.B.164-2.6c: Cross spectra (top) and coherence (bottom) of measured data for BFN2 main steam line C, for LF conditions (black) and corresponding EIC (red).

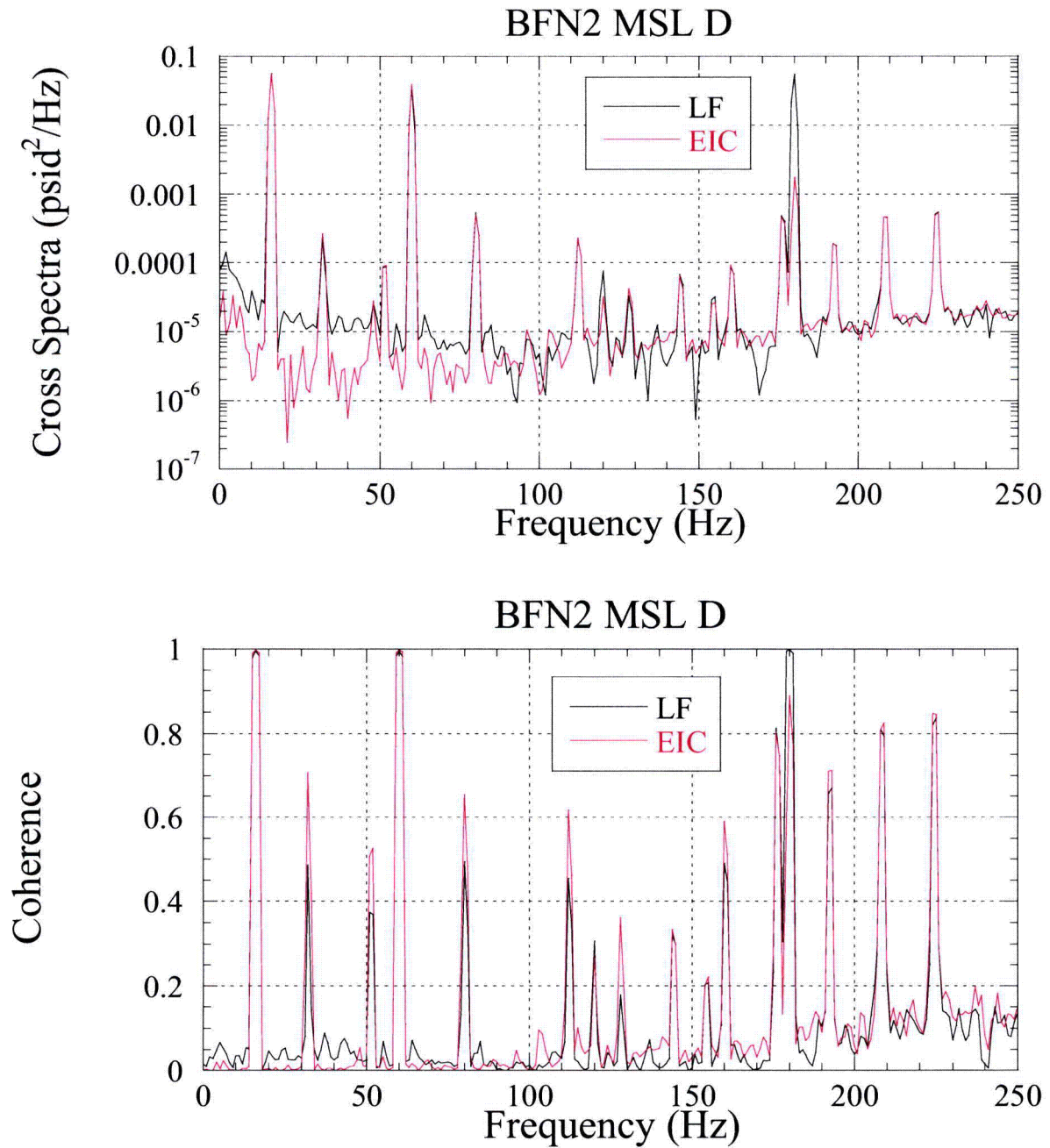


Figure EMCB.164-2.6d: Cross spectra (top) and coherence (bottom) of measured data for BFN2 main steam line D, for LF conditions (black) and corresponding EIC (red).

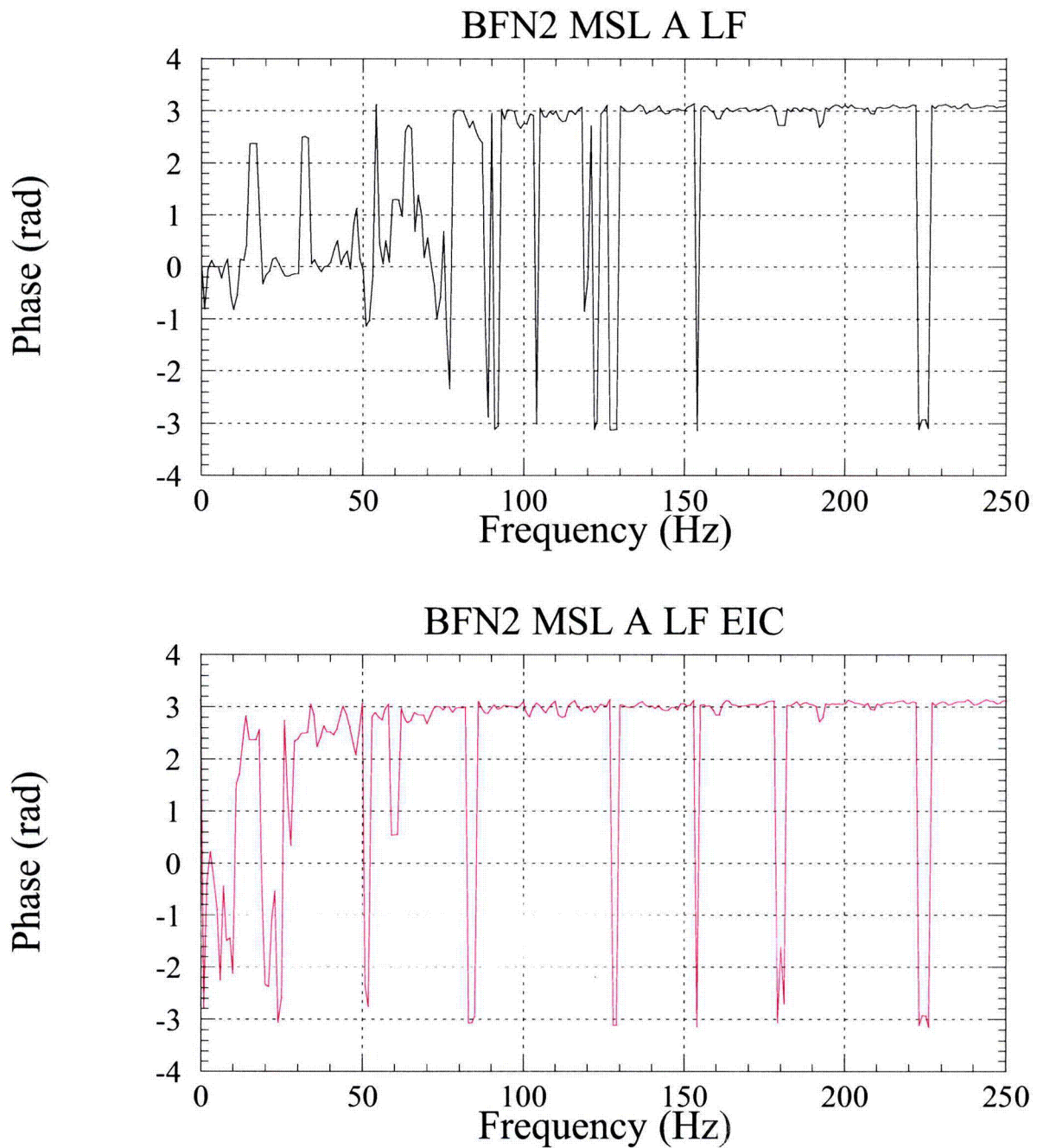


Figure EMCB.164-2.7a: Phase of measured data for BFN2 main steam line A, for LF conditions (black, top) and corresponding EIC (red, bottom).

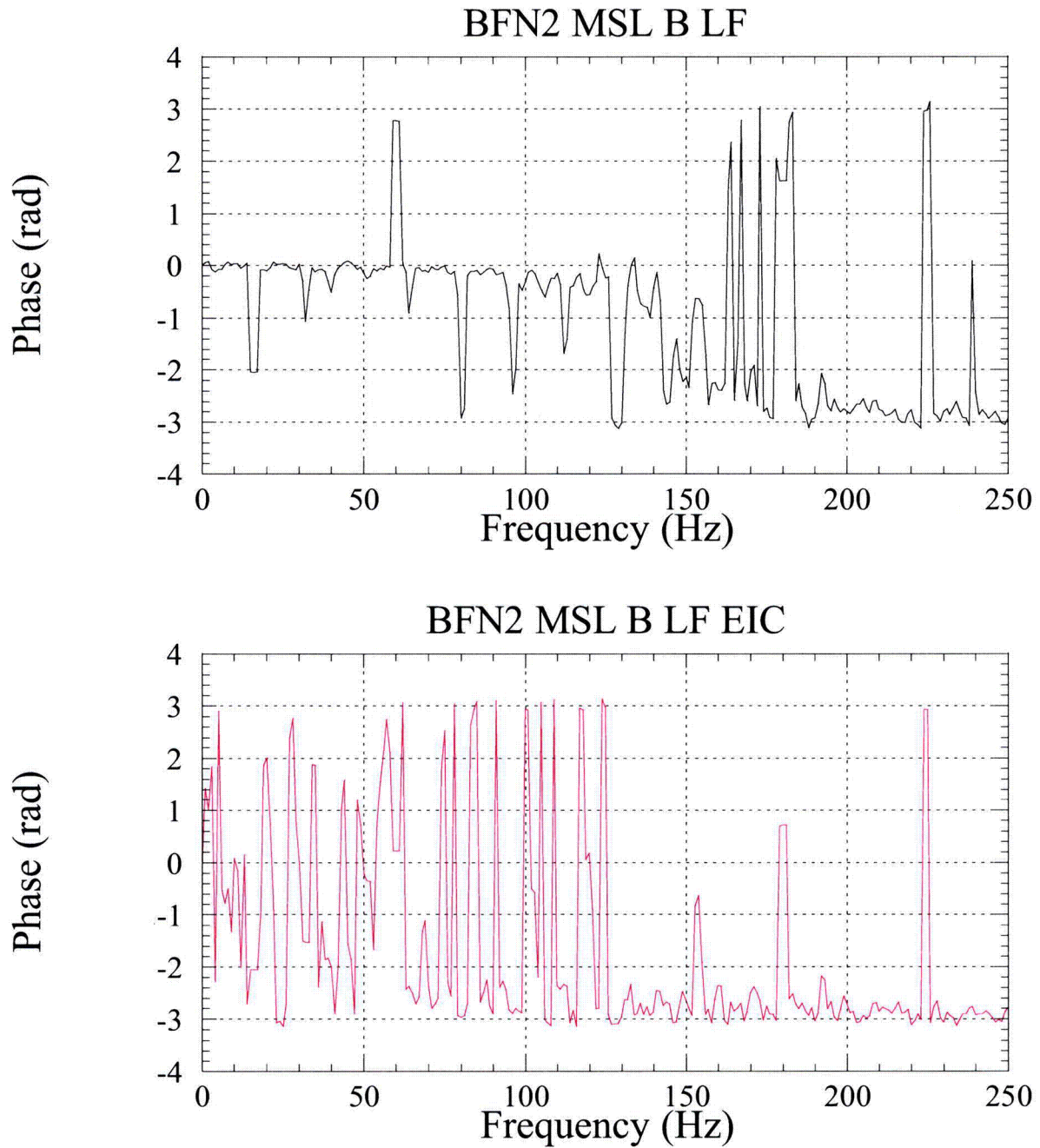


Figure EMCB.164-2.7b: Phase of measured data for BFN2 main steam line B, for LF conditions (black, top) and corresponding EIC (red, bottom).

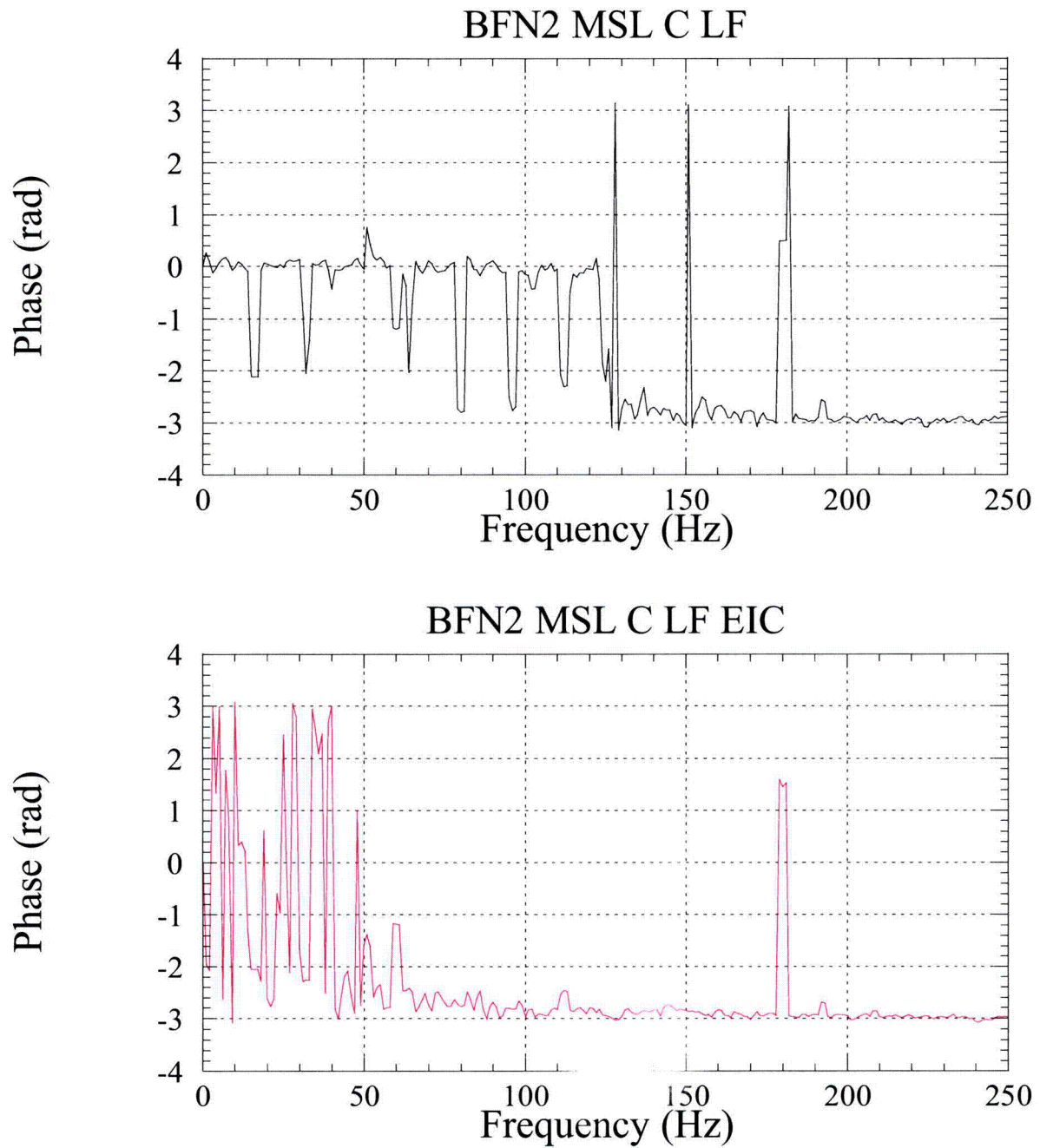


Figure EMCB.164-2.7c: Phase of measured data for BFN2 main steam line C, for LF conditions (black, top) and corresponding EIC (red, bottom).

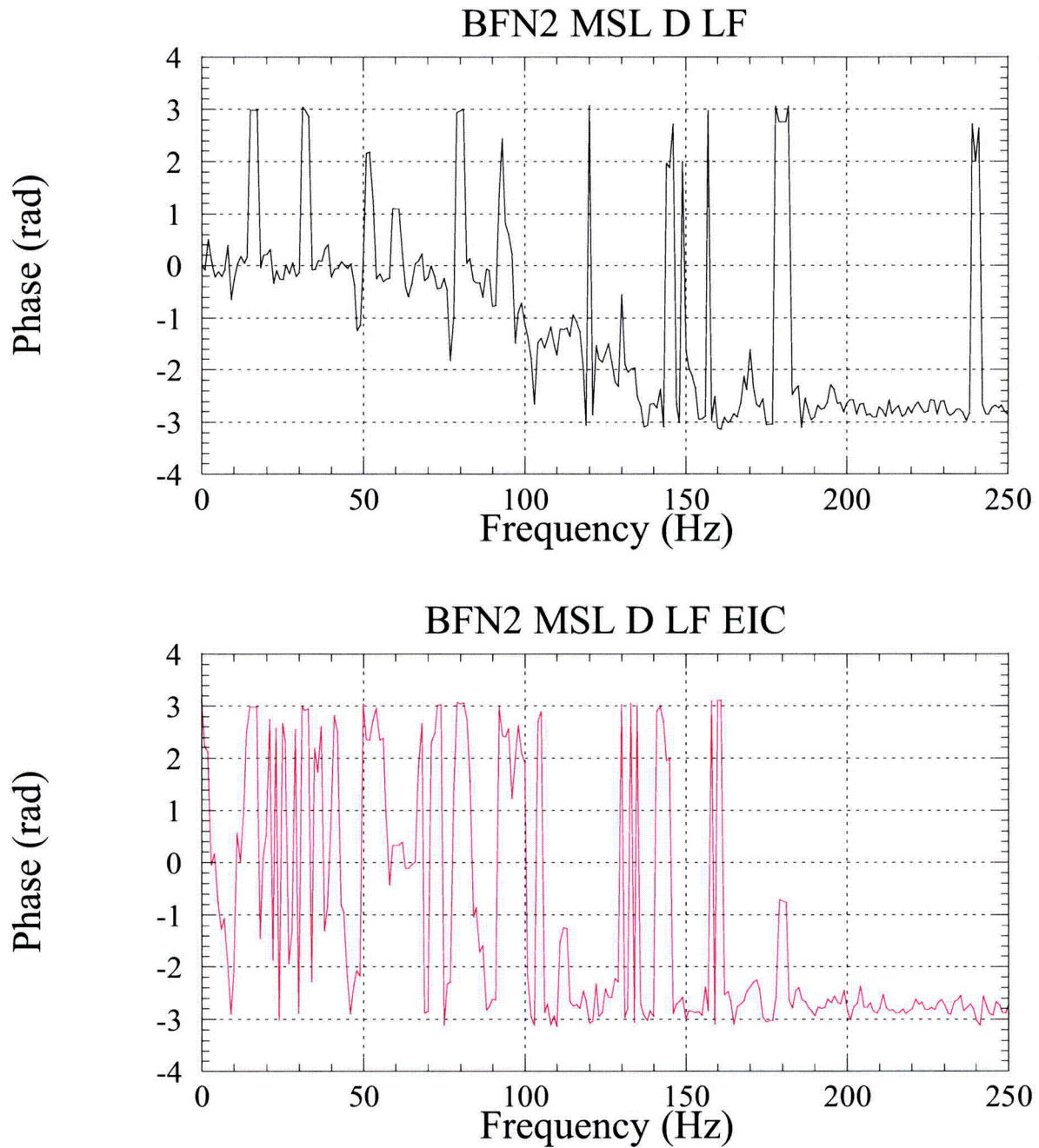


Figure EMCB.164-2.7d: Phase of measured data for BFN2 main steam line D, for LF conditions (black, top) and corresponding EIC (red, bottom).

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

After Step 1: remove EIC

Figure EMCB.164-	Contents
2.9a	PSD of main steam line A upper and lower for CLTP and LF
2.9b	PSD of main steam line B upper and lower for CLTP and LF
2.9c	PSD of main steam line C upper and lower for CLTP and LF
2.9d	PSD of main steam line D upper and lower for CLTP and LF
2.10a	Cross spectra and coherence of main steam line A for CLTP and LF
2.10b	Cross spectra and coherence of main steam line B for CLTP and LF
2.10c	Cross spectra and coherence of main steam line C for CLTP and LF
2.10d	Cross spectra and coherence of main steam line D for CLTP and LF
2.11a	Phase of main steam lines A and B for CLTP and LF
2.11b	Phase of main steam lines C and D for CLTP and LF
[[]]
[[]]
[[]]
[[]]

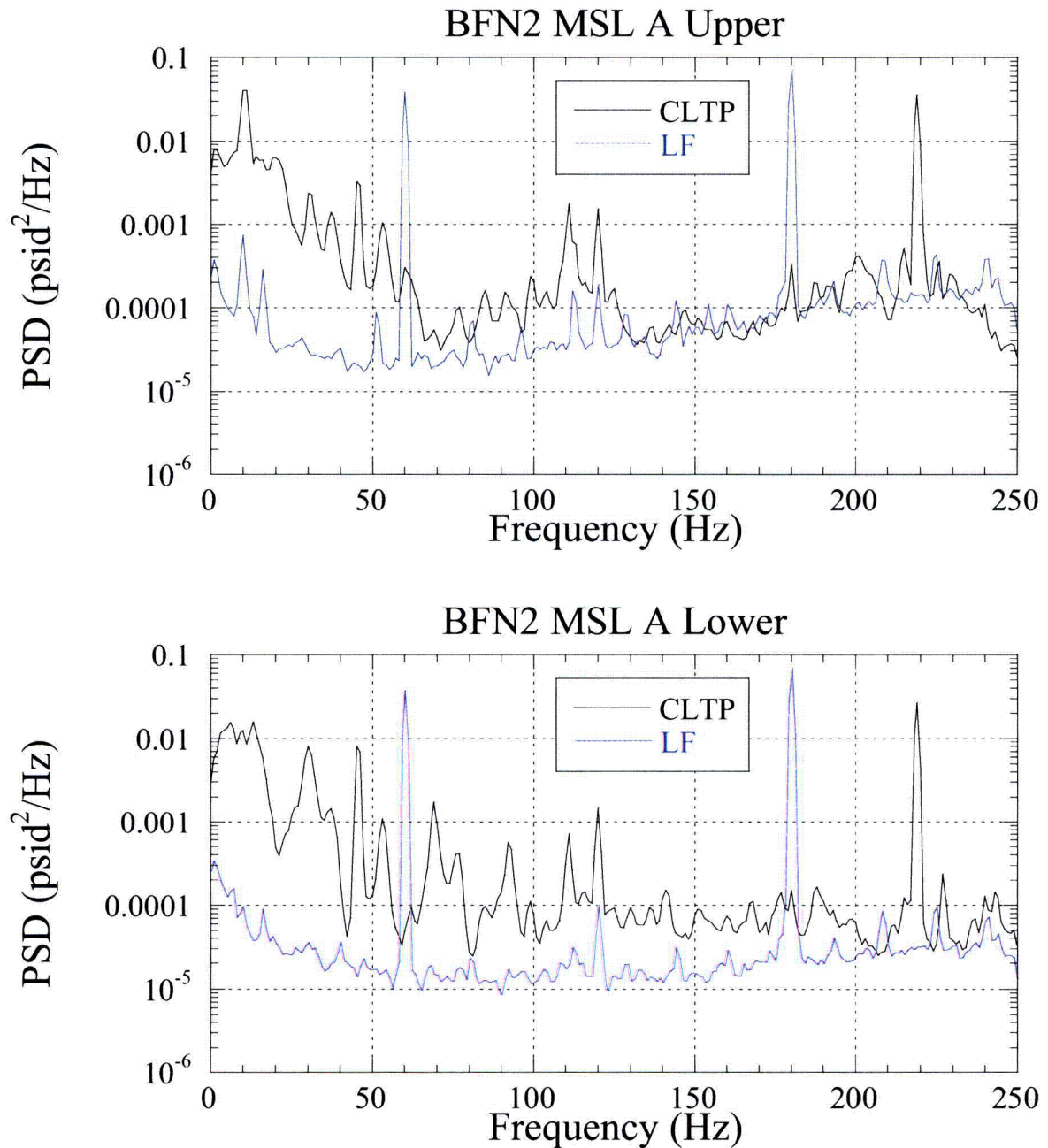


Figure EMCB.164-2.9a: Autospectra of EIC removed data for BFN2 main steam line A: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and LF conditions (blue).

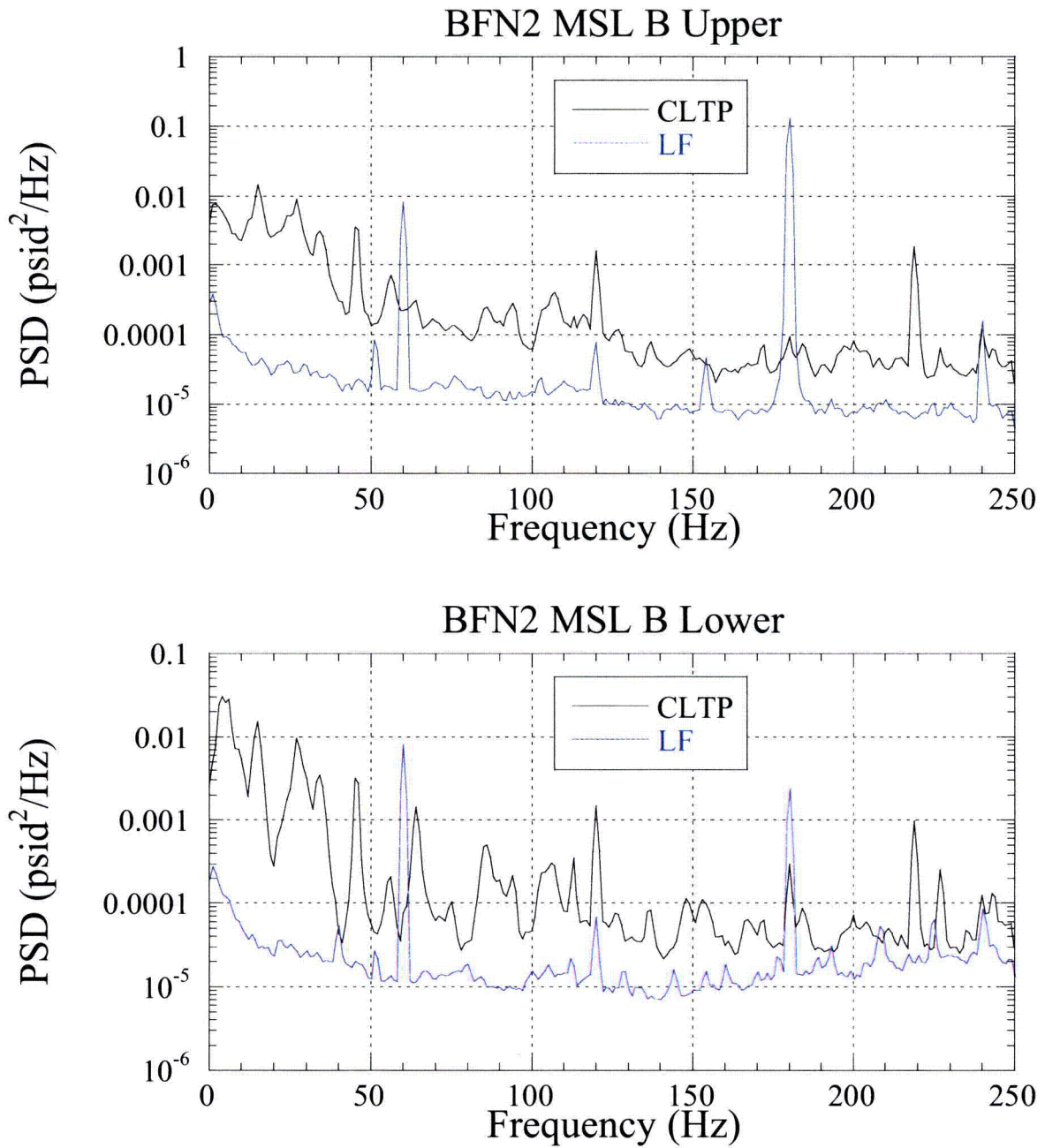


Figure EMCB.164-2.9b: Autospectra of EIC removed data for BFN2 main steam line B: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and LF conditions (blue).

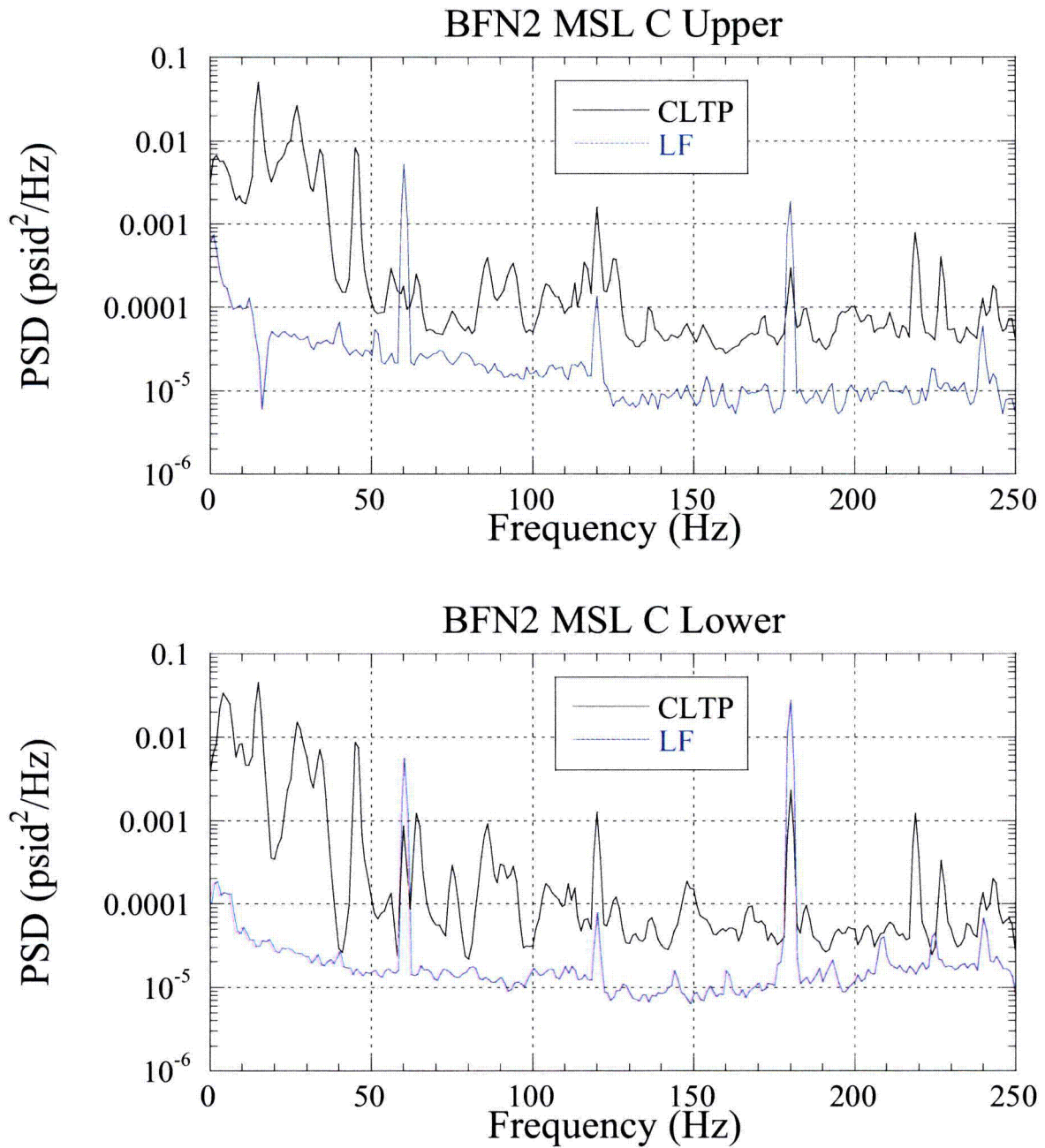


Figure EMCB.164-2.9c: Autospectra of EIC removed data for BFN2 main steam line C: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and LF conditions (blue).

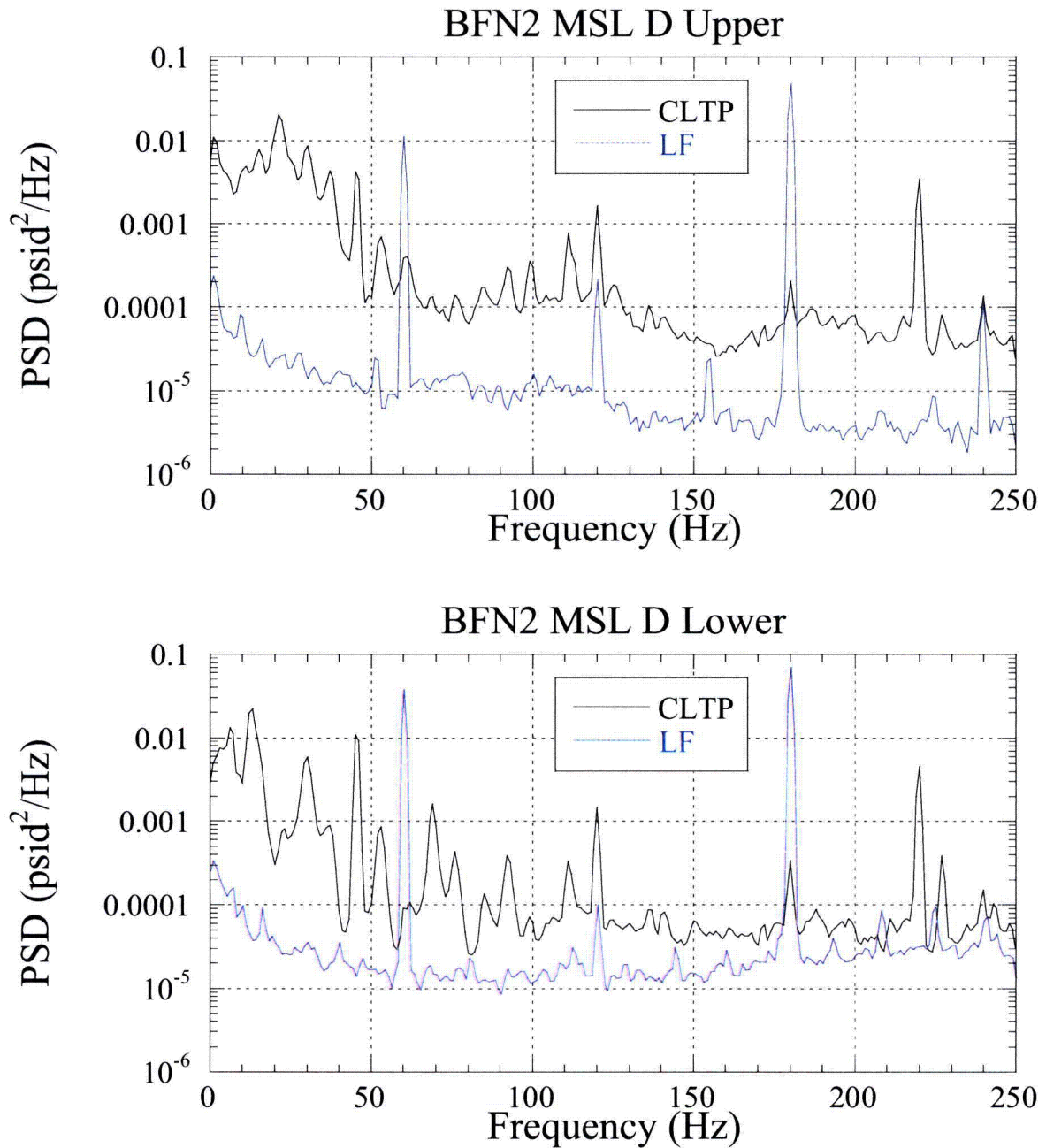


Figure EMCB.164-2.9d: Autospectra of EIC removed data for BFN2 main steam line D: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and LF conditions (blue).

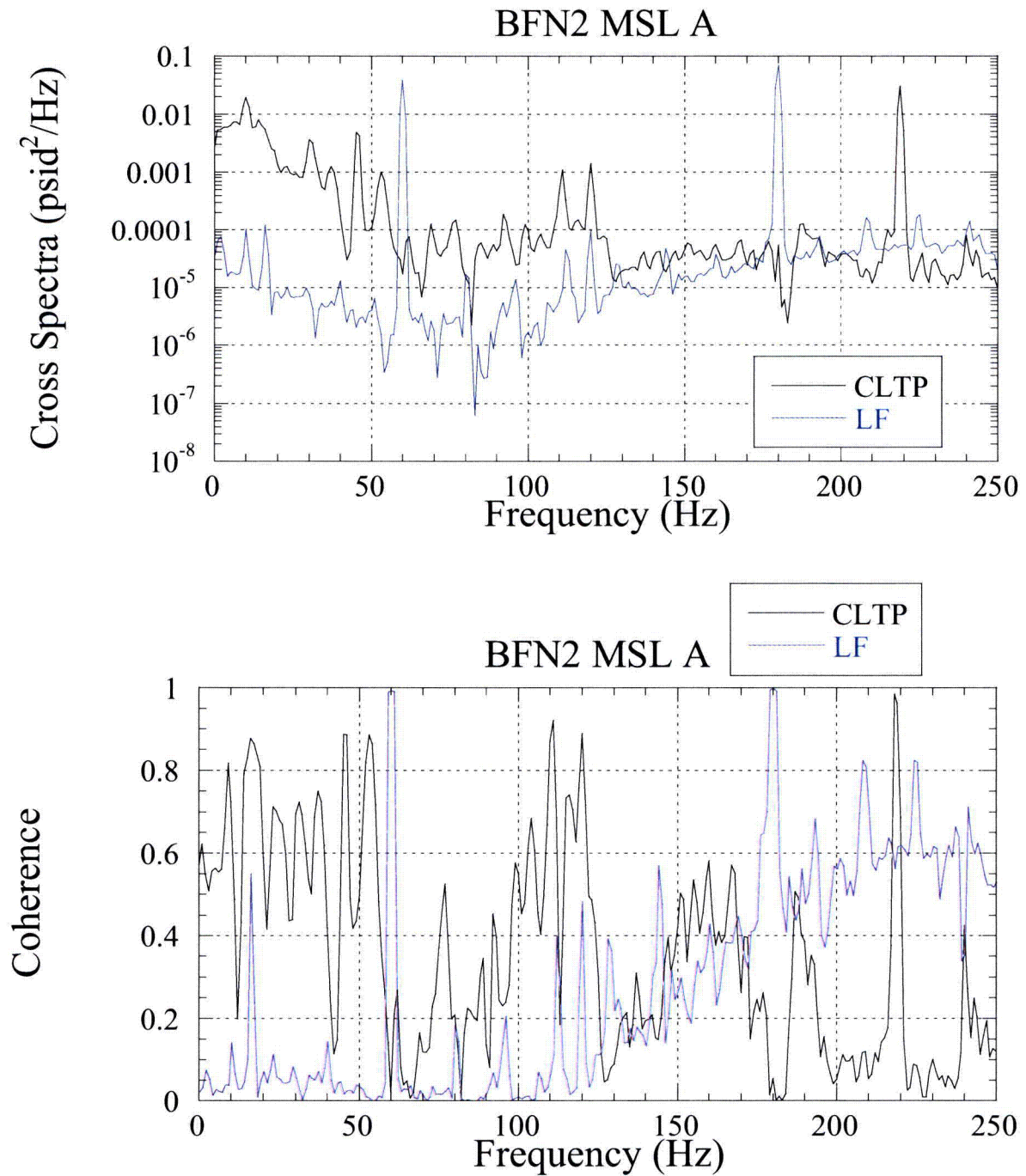


Figure EMC.B.164-2.10a: Cross spectra (top) and coherence (bottom) of EIC removed data for BFN2 main steam line A, for CLTP conditions (black) and LF conditions (blue).

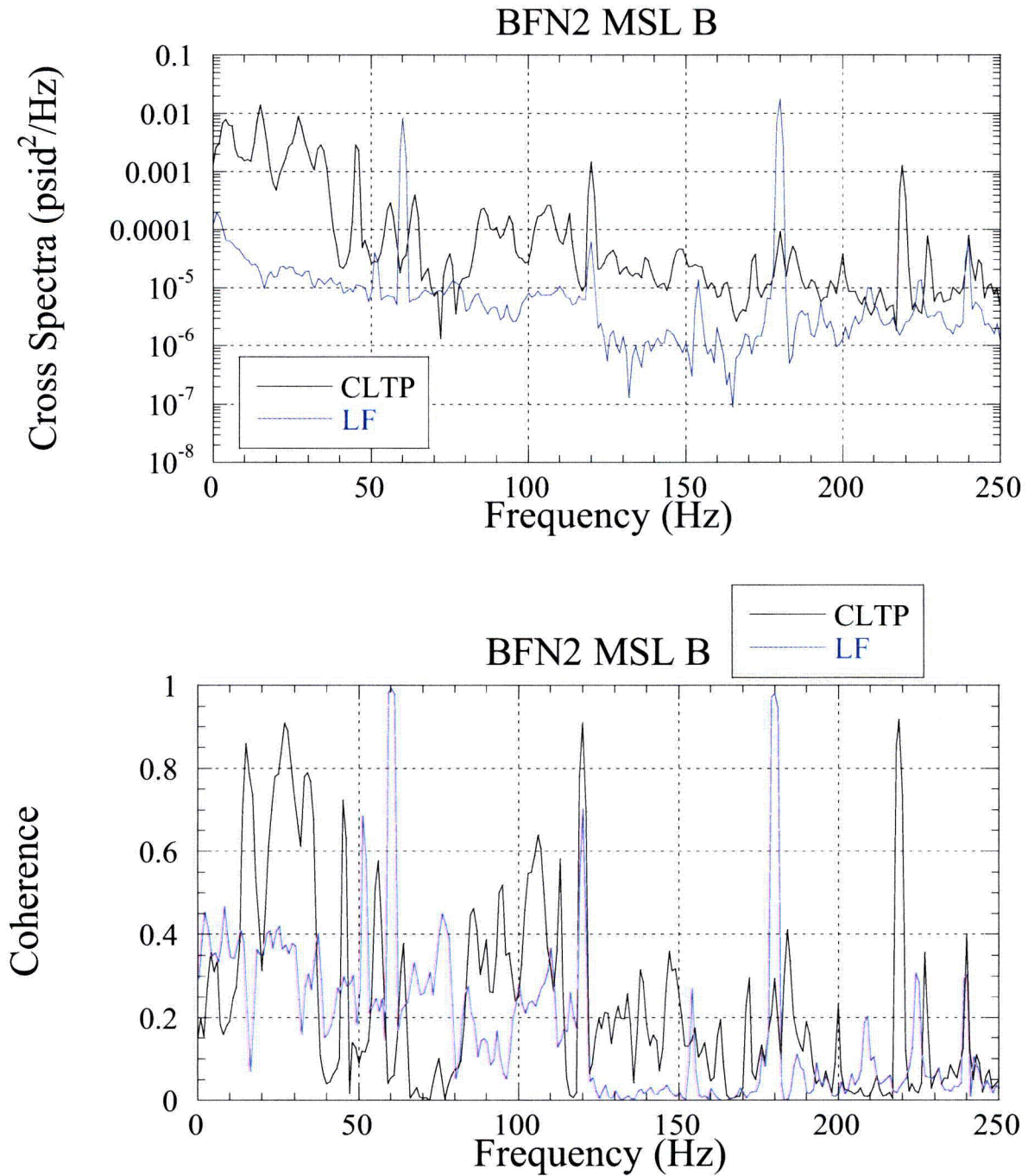


Figure EMC.B.164-2.10b: Cross spectra (top) and coherence (bottom) of EIC removed data for BFN2 main steam line B, for CLTP conditions (black) and LF conditions (blue).

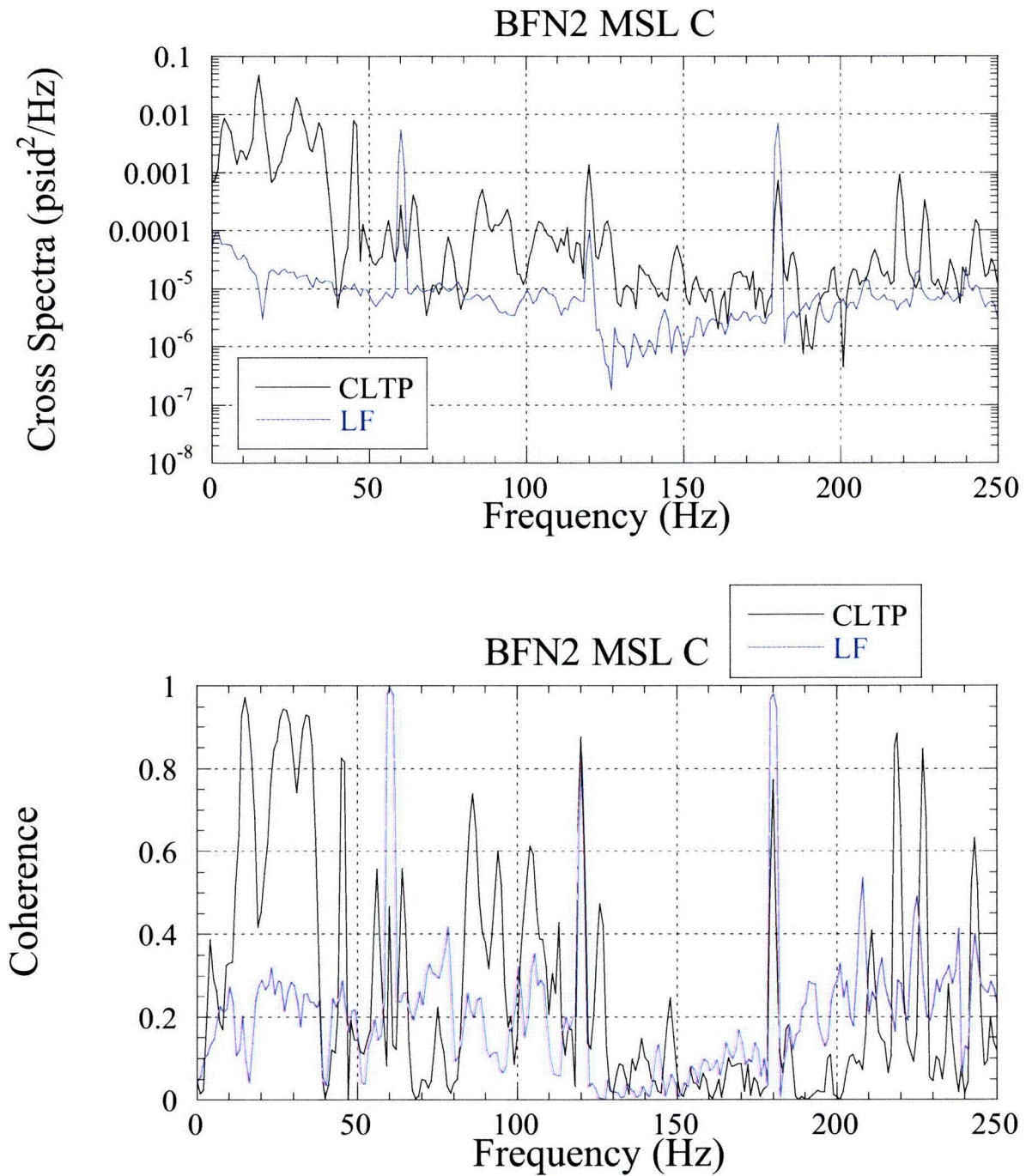


Figure EMC.B.164-2.10c: Cross spectra (top) and coherence (bottom) of EIC removed data for BFN2 main steam line C, for CLTP conditions (black) and LF conditions (blue).

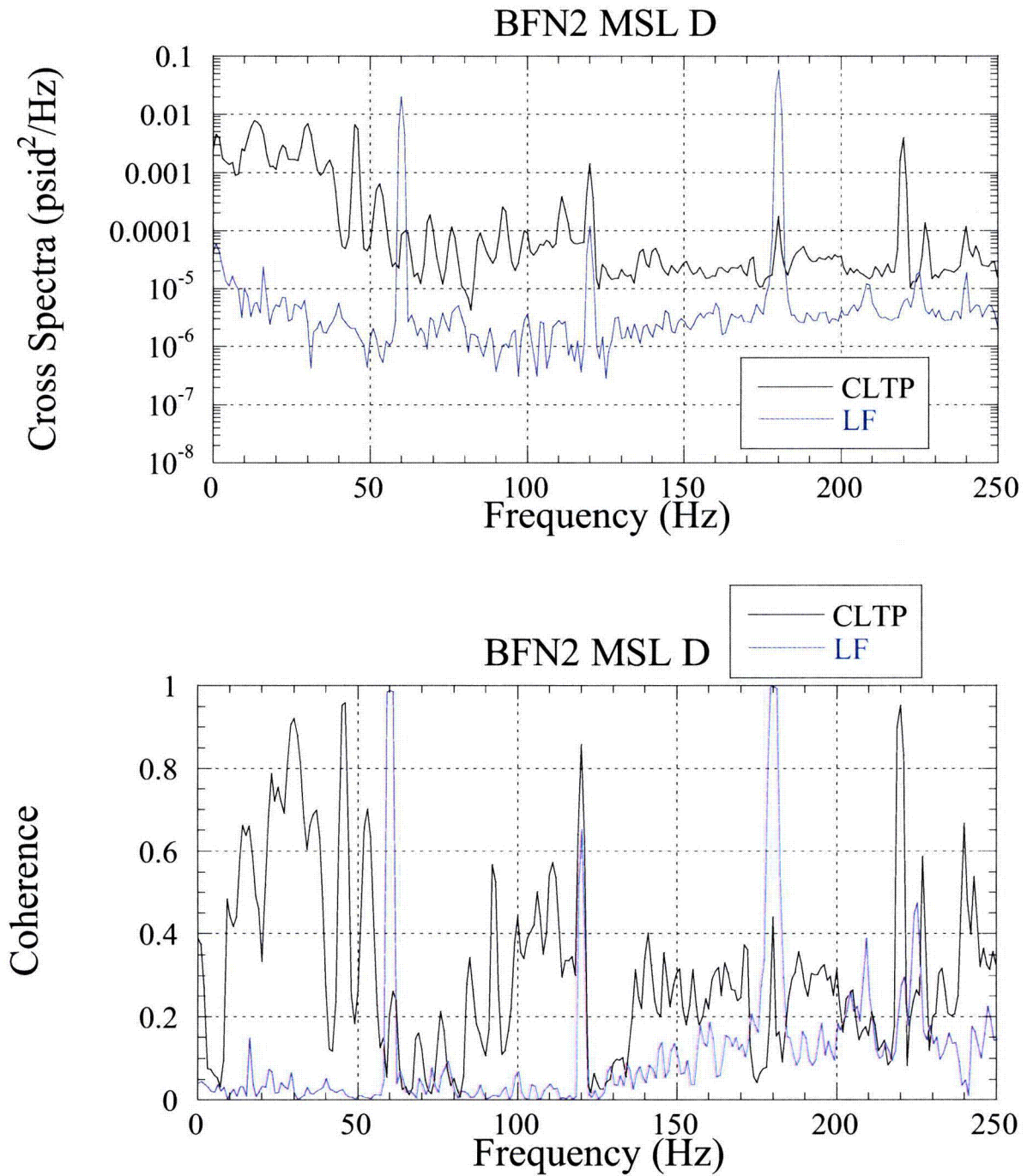


Figure EMC.B.164-2.10d: Cross spectra (top) and coherence (bottom) of EIC removed data for BFN2 main steam line D, for CLTP conditions (black) and LF conditions (blue).

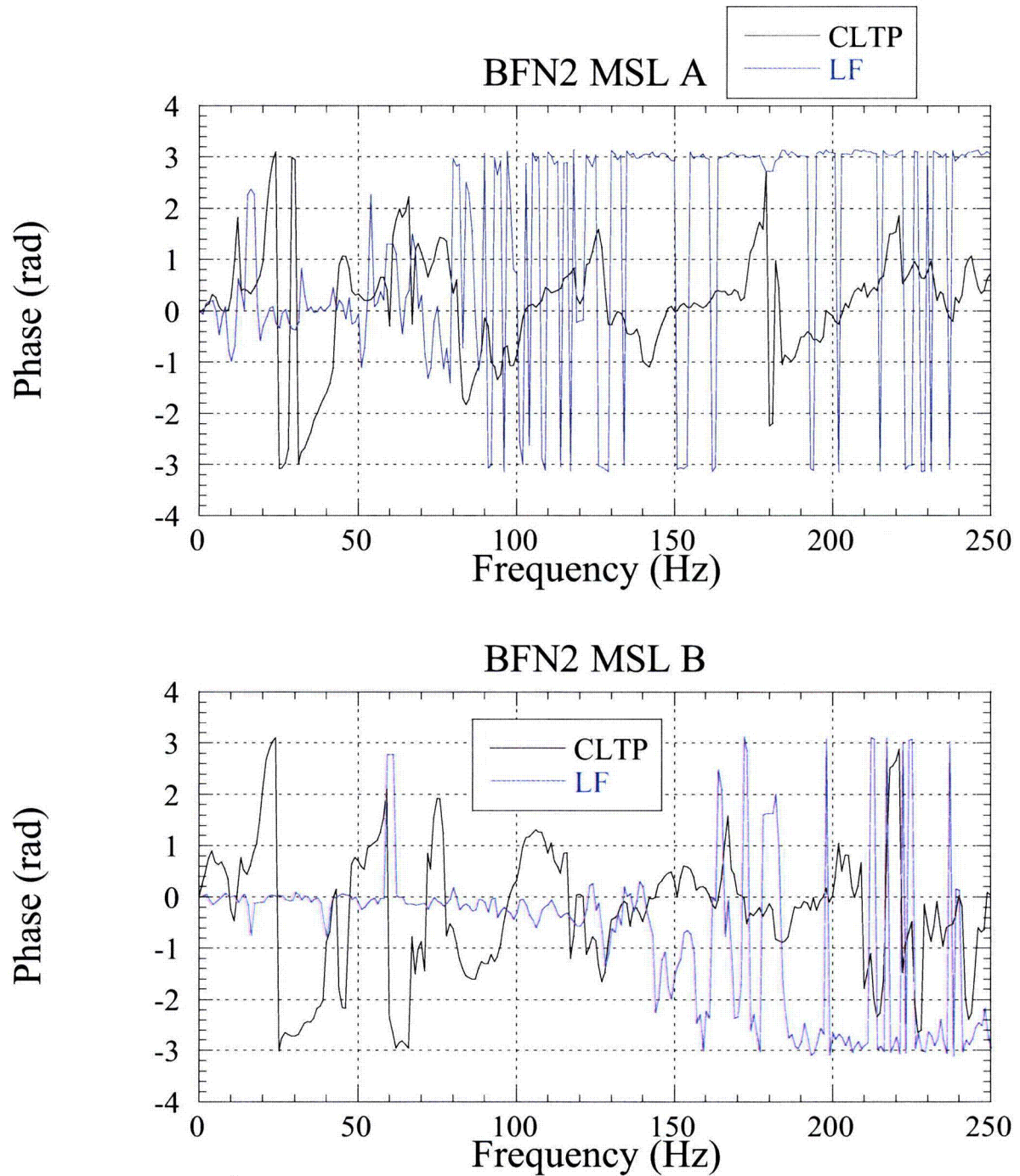


Figure EMCB.164-2.11a: Phase of EIC removed data for BFN2 main steam line A (top) and B (bottom), for CLTP conditions (black) and LF conditions (blue).

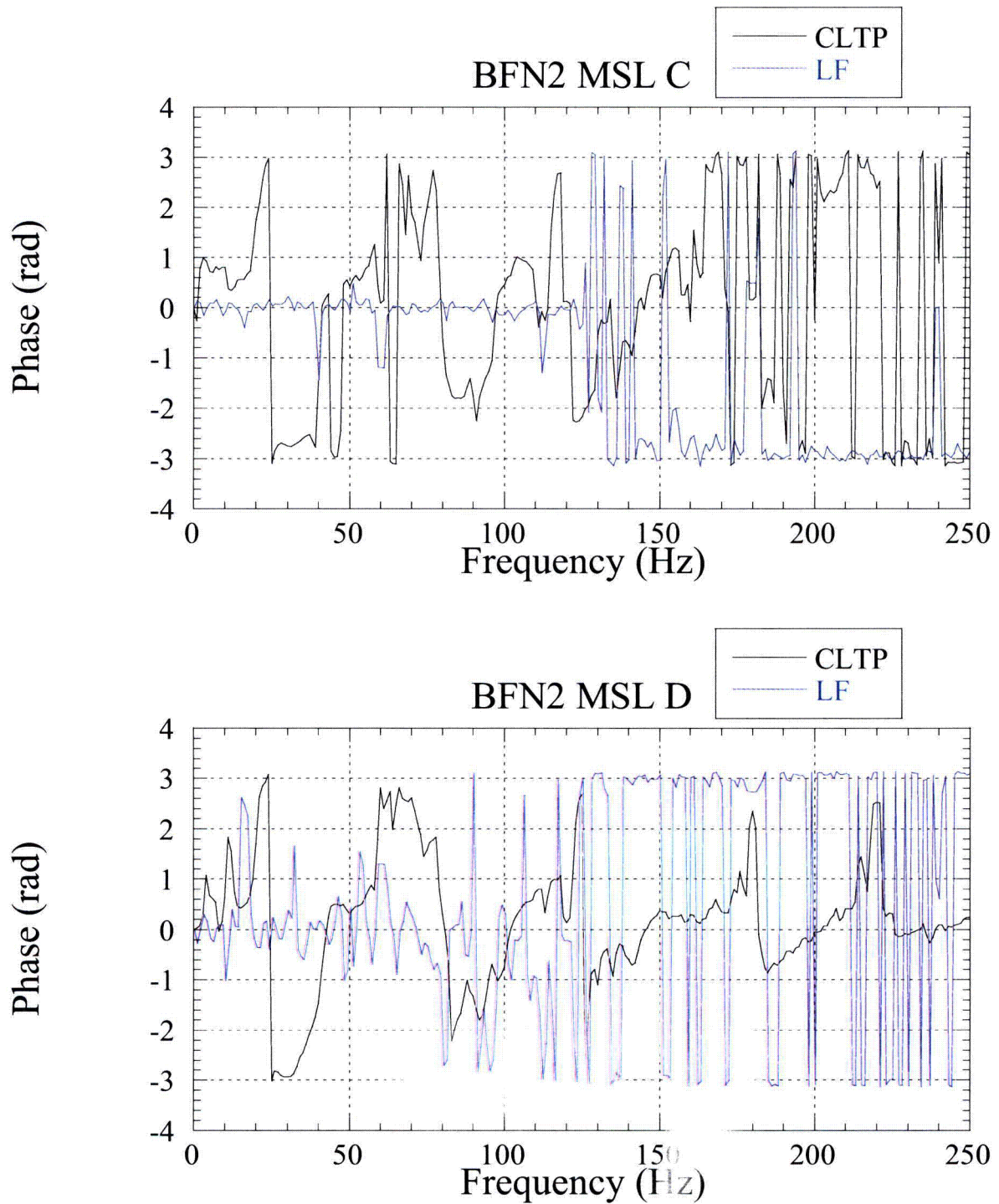


Figure EMCB.164-2.11b: Phase of EIC removed data for BFN2 main steam line C (top) and D (bottom), for CLTP conditions (black) and LF conditions (blue).

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

After Step 2: apply notch filters

Figure EMCB.164-	Contents
2.13a	PSD of main steam line A upper and lower for CLTP and LF
2.13b	PSD of main steam line B upper and lower for CLTP and LF
2.13c	PSD of main steam line C upper and lower for CLTP and LF
2.13d	PSD of main steam line D upper and lower for CLTP and LF
2.14a	Cross spectra and coherence of main steam line A for CLTP and LF
2.14b	Cross spectra and coherence of main steam line B for CLTP and LF
2.14c	Cross spectra and coherence of main steam line C for CLTP and LF
2.14d	Cross spectra and coherence of main steam line D for CLTP and LF
2.15a	Phase of main steam lines A and B for CLTP and LF
2.15b	Phase of main steam lines C and D for CLTP and LF
[[]]
[[]]
[[]]
[[]]

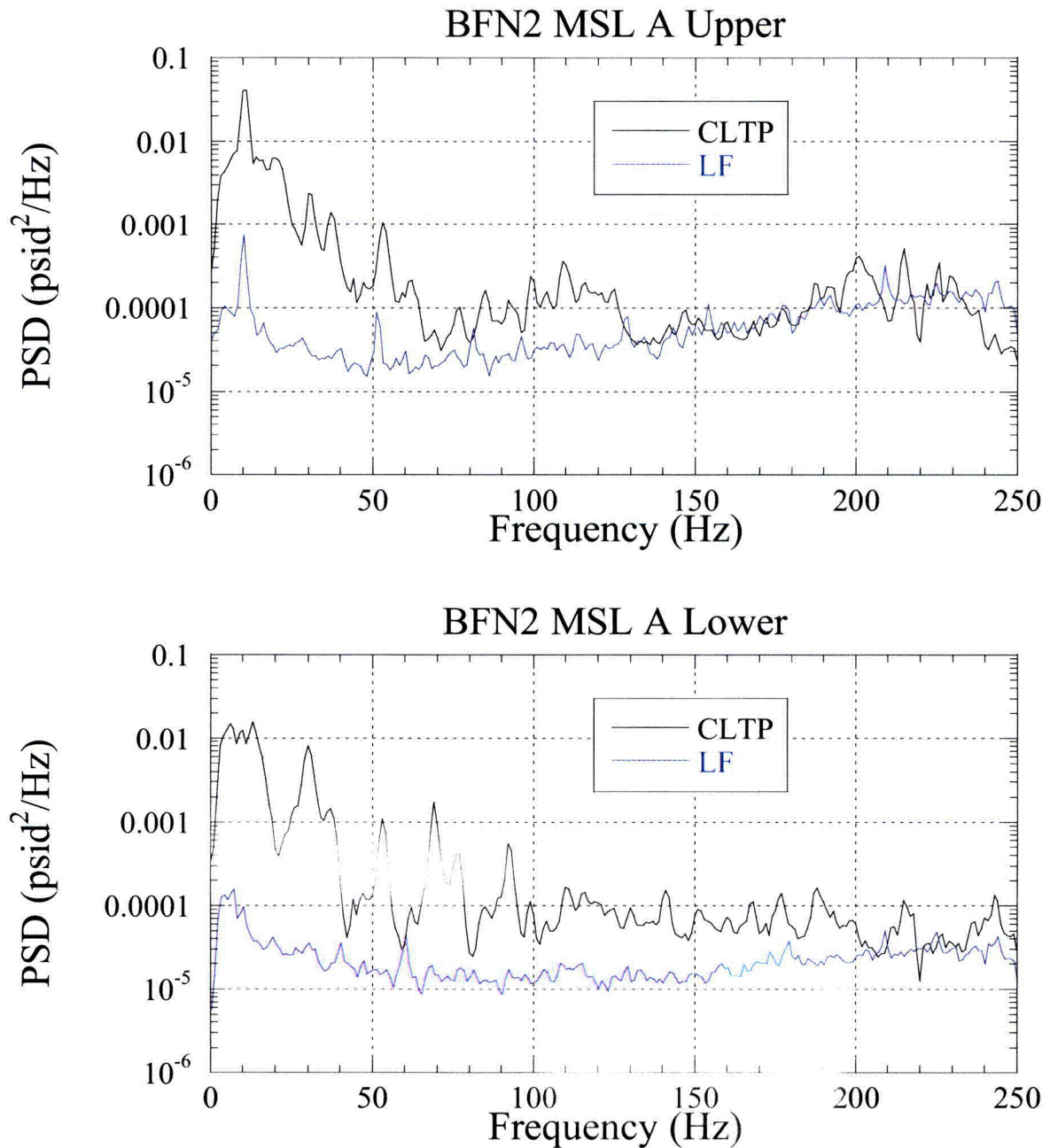


Figure EMC.B.164-2.13a: Autospectra of notch filtered data for BFN2 steam line A: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and LF conditions (blue).

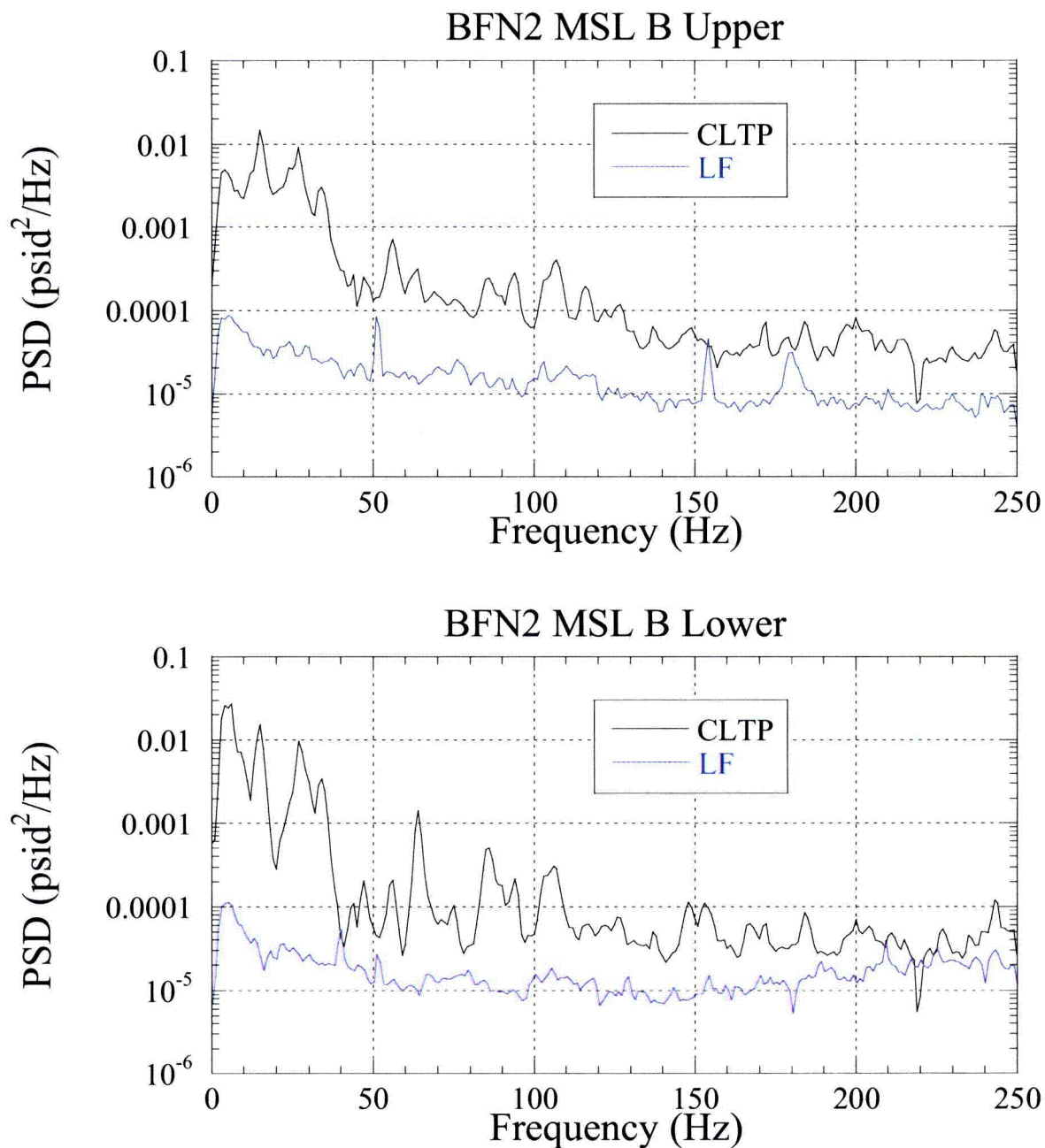


Figure EMC.B.164-2.13b: Autospectra of notch filtered data for BFN2 main steam line B: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and LF conditions (blue).

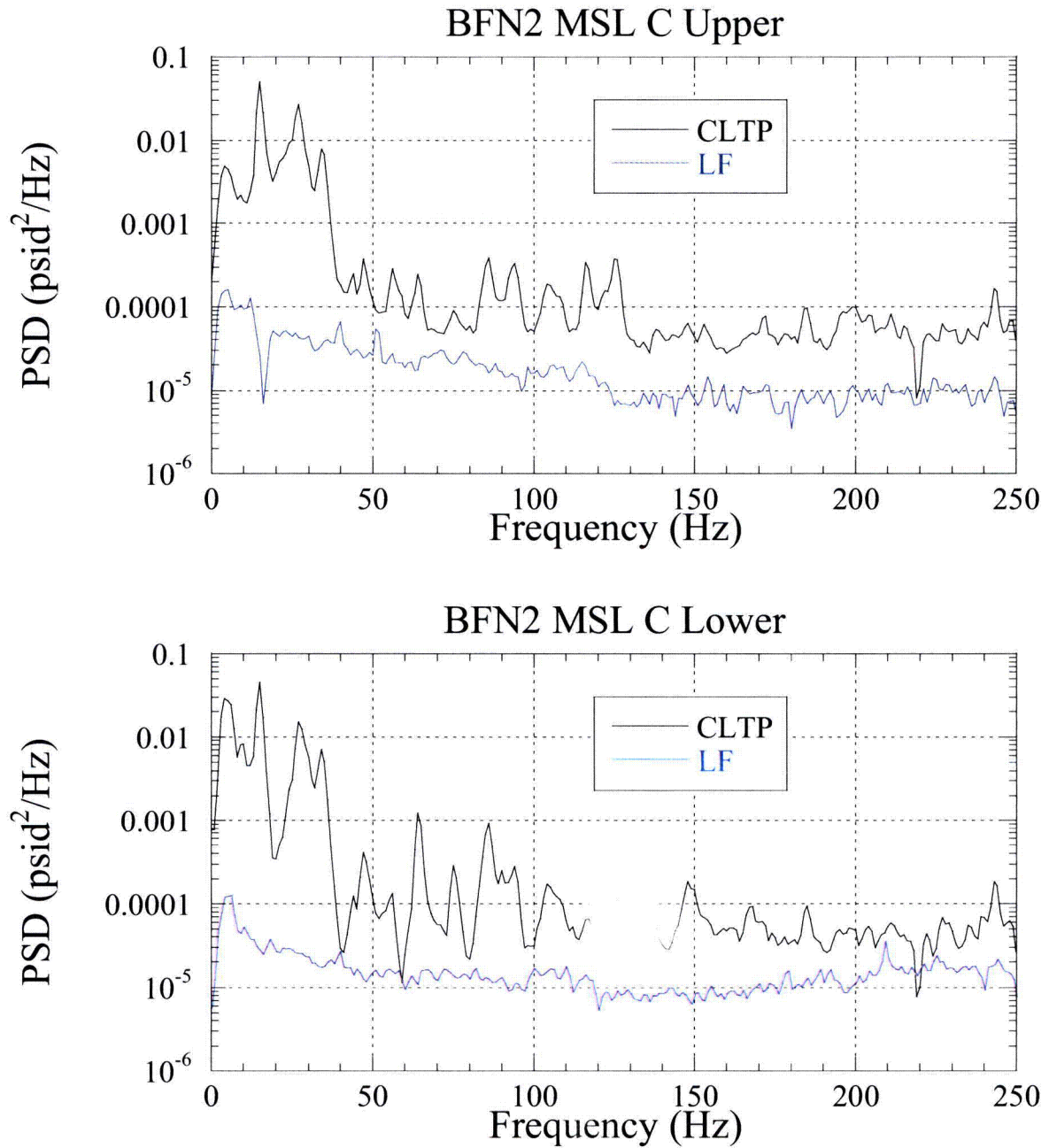


Figure EMCB.164-2.13c: Autospectra of notch filtered data for BFN2 main steam line C: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and LF conditions (blue).

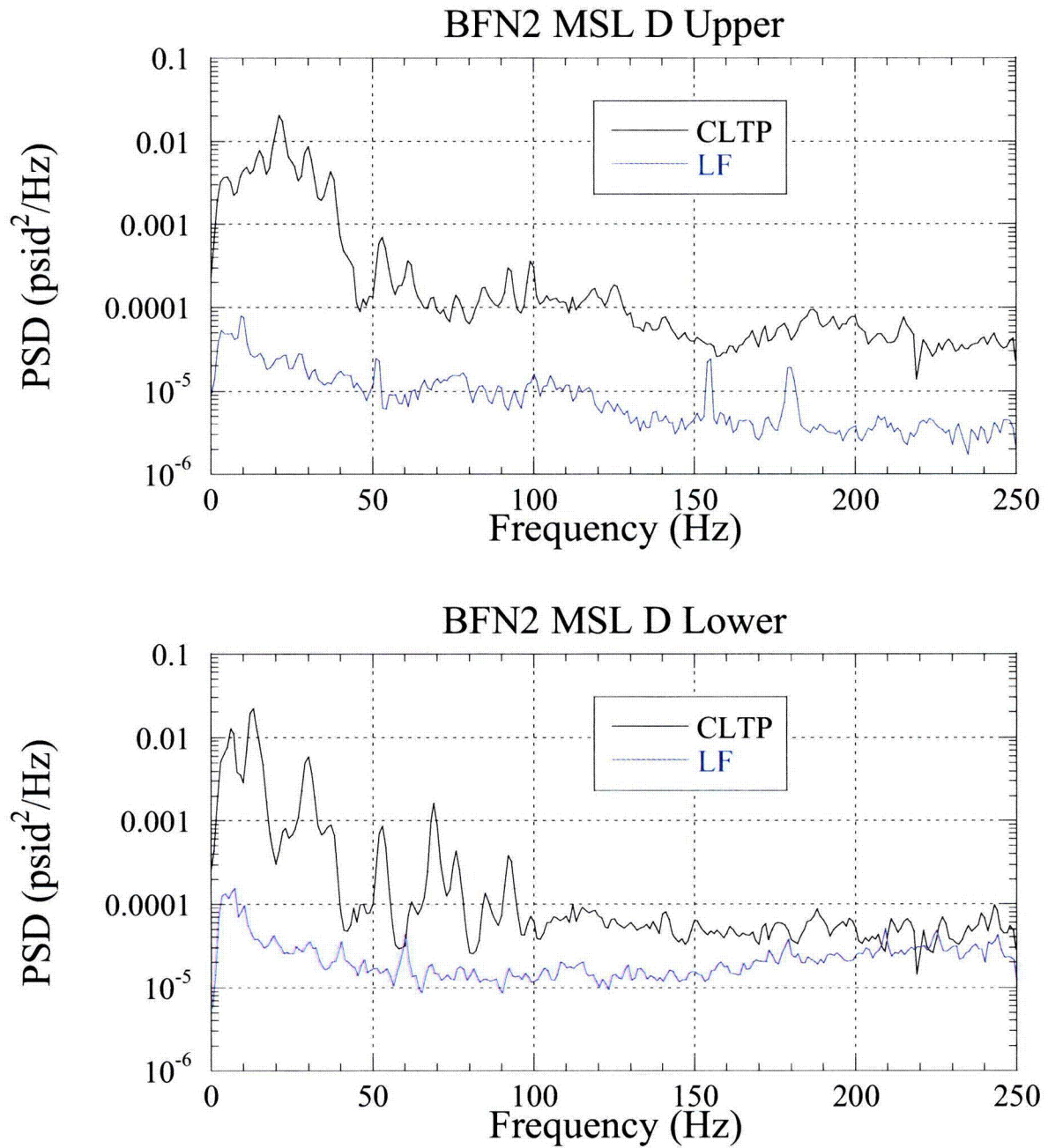


Figure EMC.B.164-2.13d: Autospectra of notch filtered data for BFN2 main steam line D: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and LF conditions (blue).

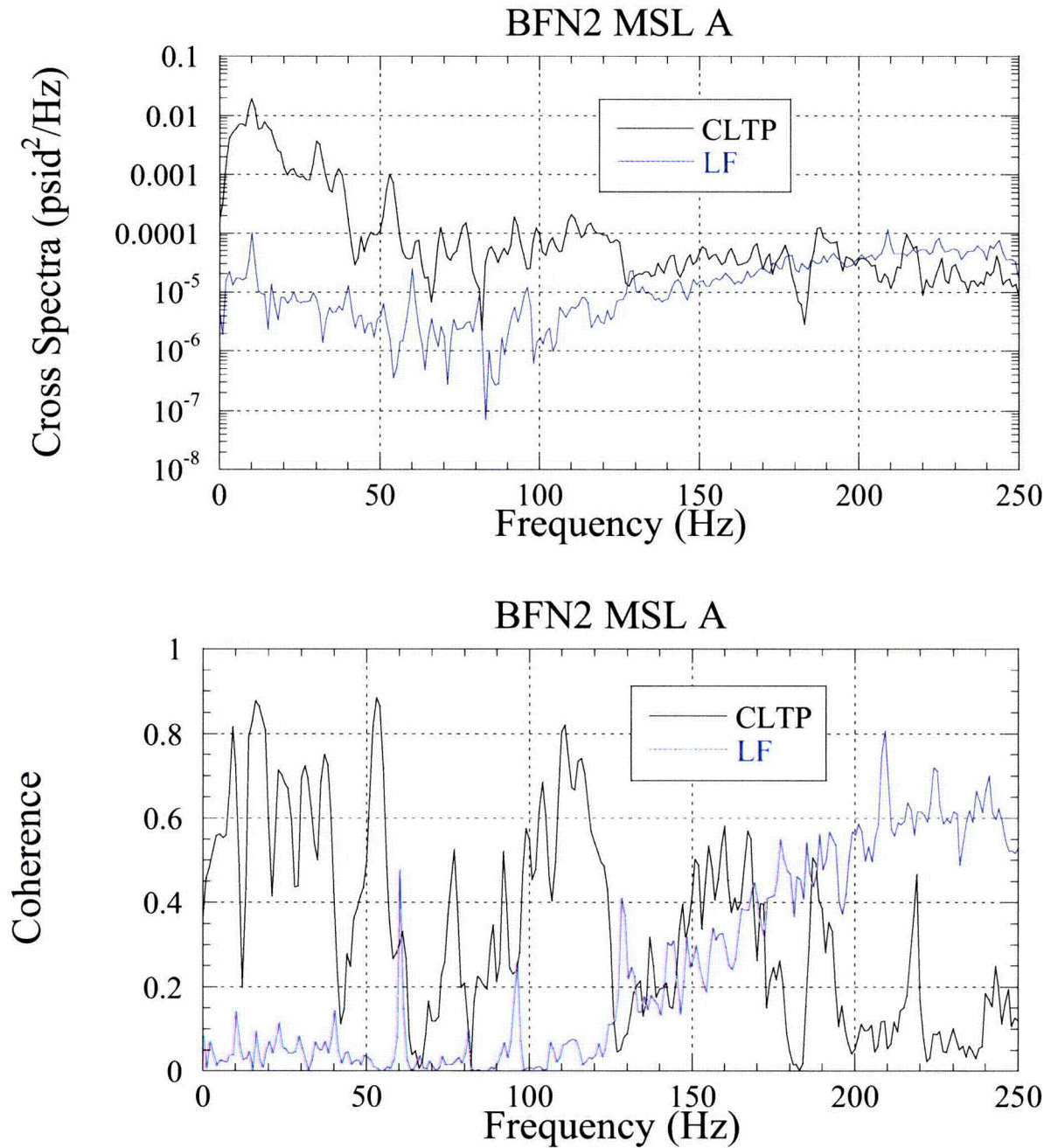


Figure EMC.B.164-2.14a: Cross spectra (top) and coherence (bottom) of notch filtered data for BFN2 main steam line A, for CLTP conditions (black) and LF conditions (blue).

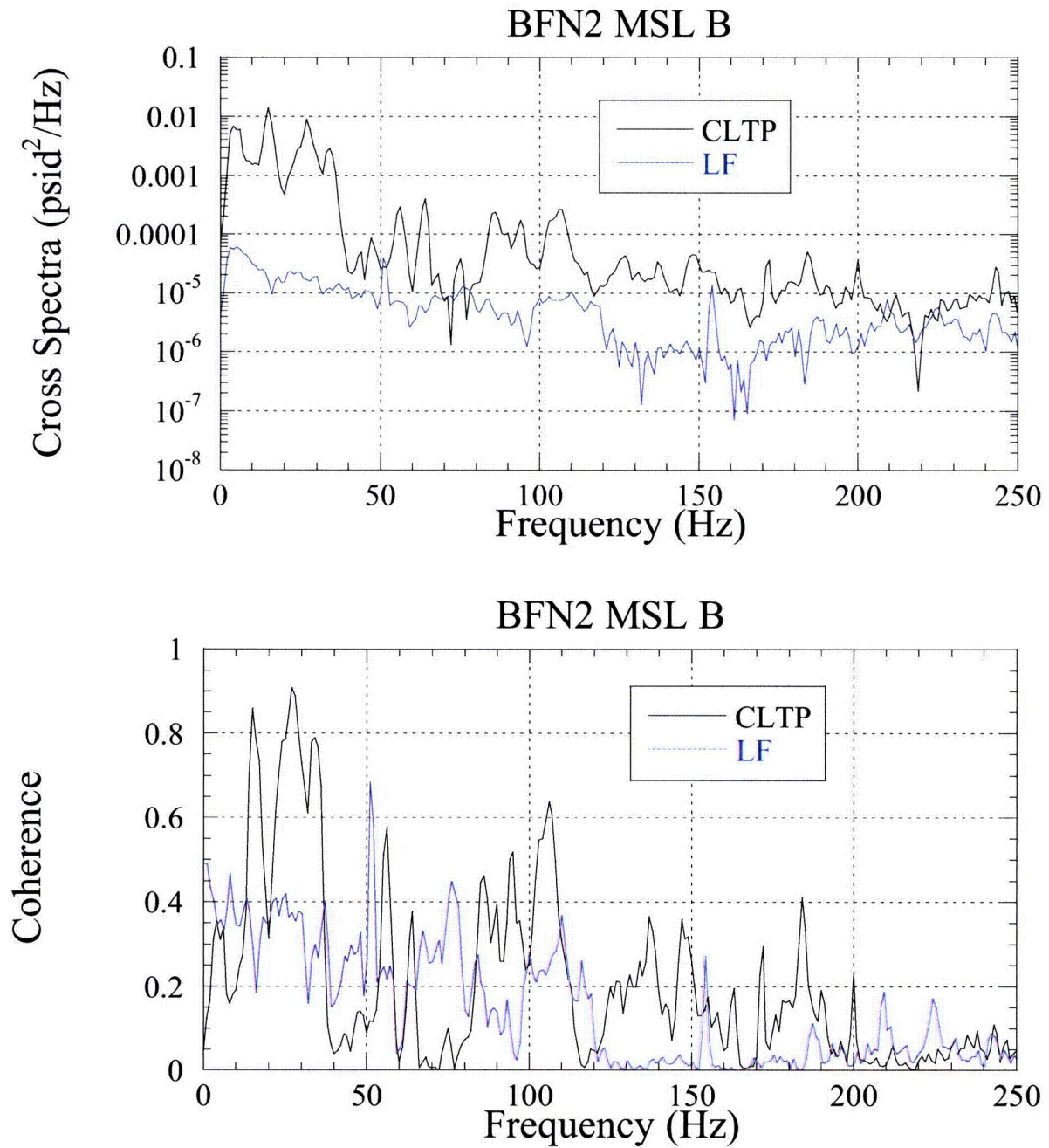


Figure EMCB.164-2.14b: Cross spectra (top) and coherence (bottom) of notch filtered data for BFN2 main steam line B, for CLTP conditions (black) and LF conditions (blue).

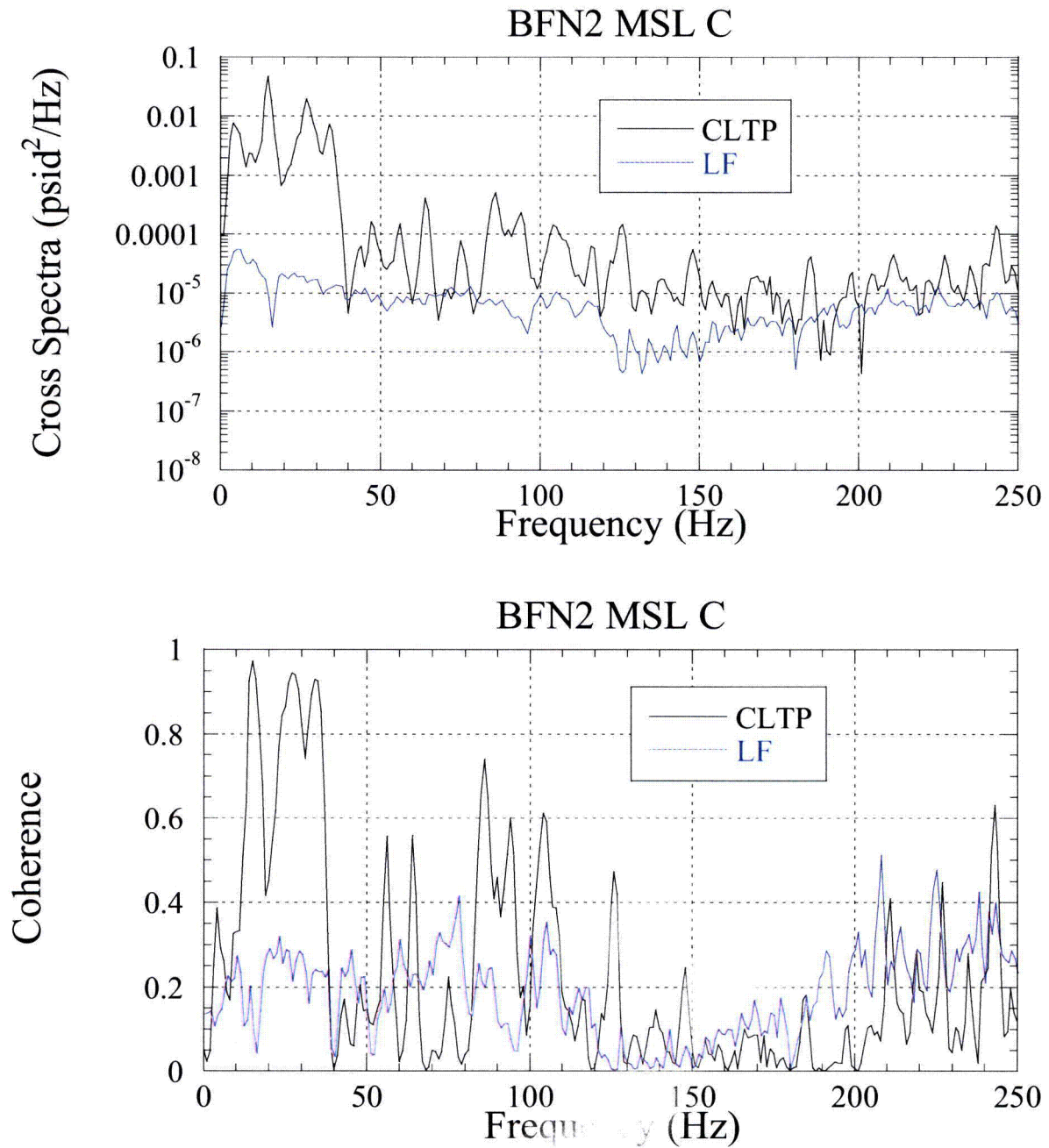


Figure EMC.B.164-2.14c: Cross spectra (top) and coherence (bottom) of notch filtered data for BFN2 main steam line C, for CLTP conditions (black) and LF conditions (blue).

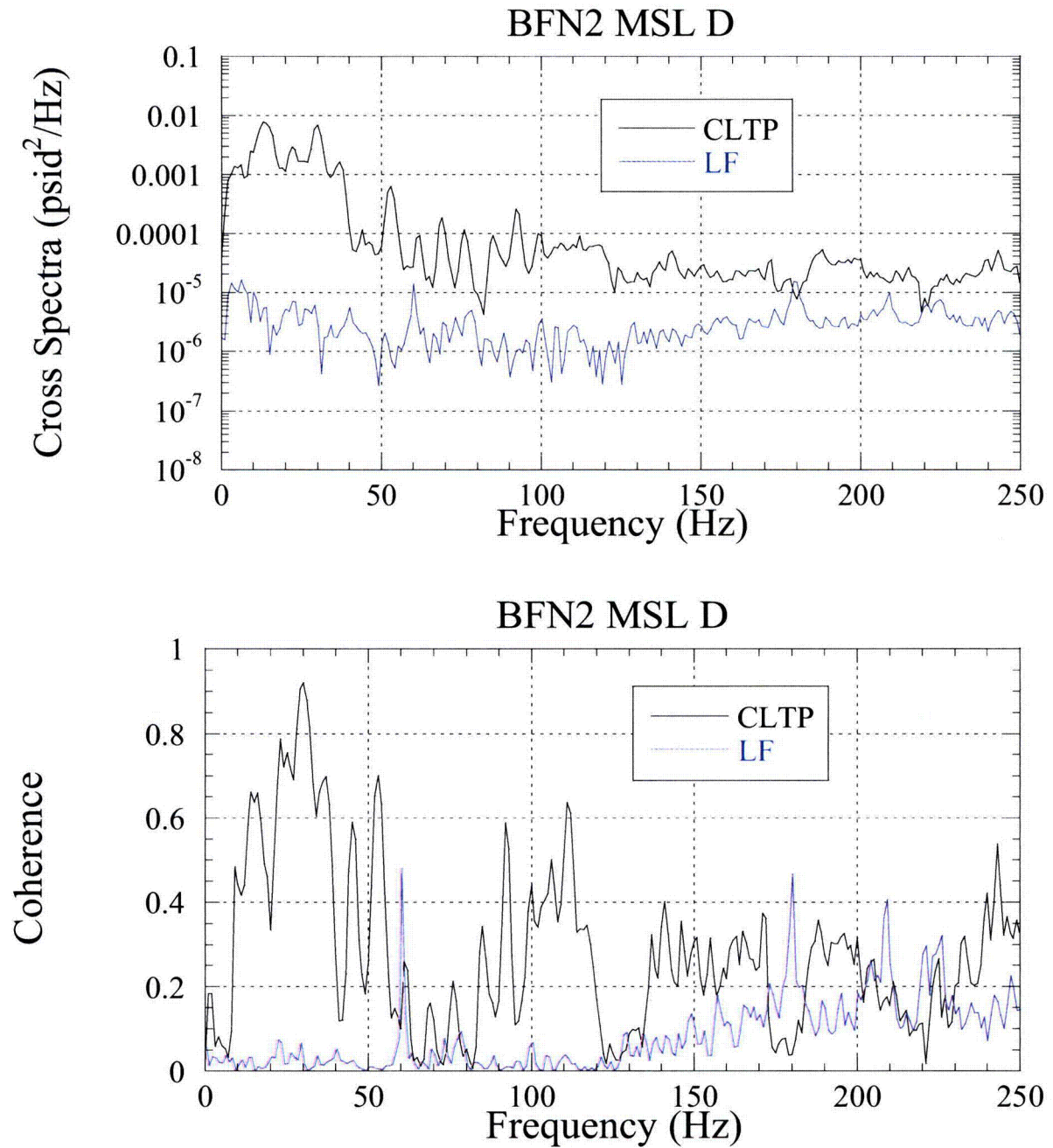


Figure EMC.B.164-2.14d: Cross spectra (top) and coherence (bottom) of notch filtered data for BFN2 main steam line D, for CLTP conditions (black) and LF conditions (blue).

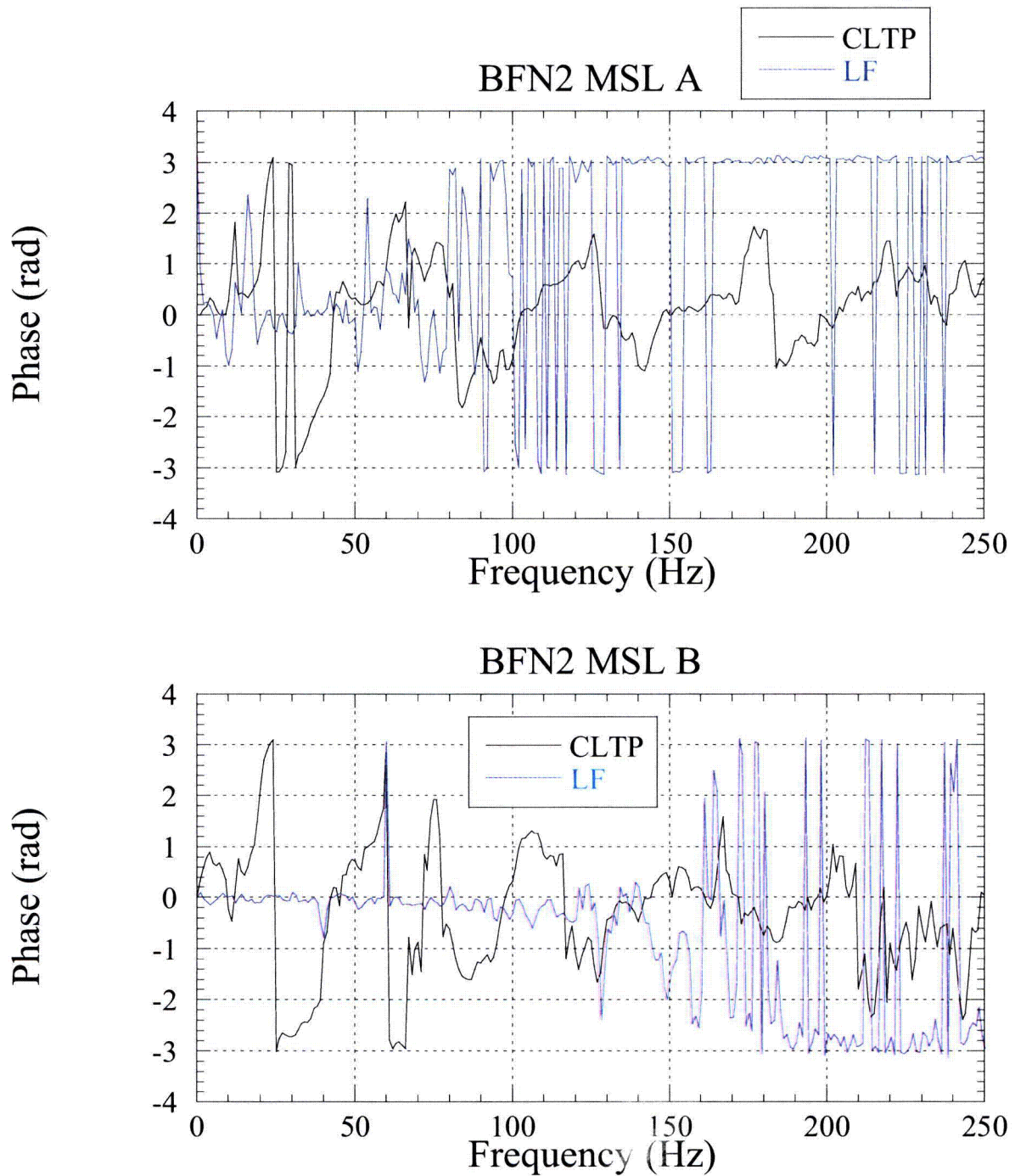


Figure EMCB.164-2.15a: Phase of notch filtered data for BFN2 main steam line A (top) and B (bottom), for CLTP conditions (black) and LF conditions (blue).

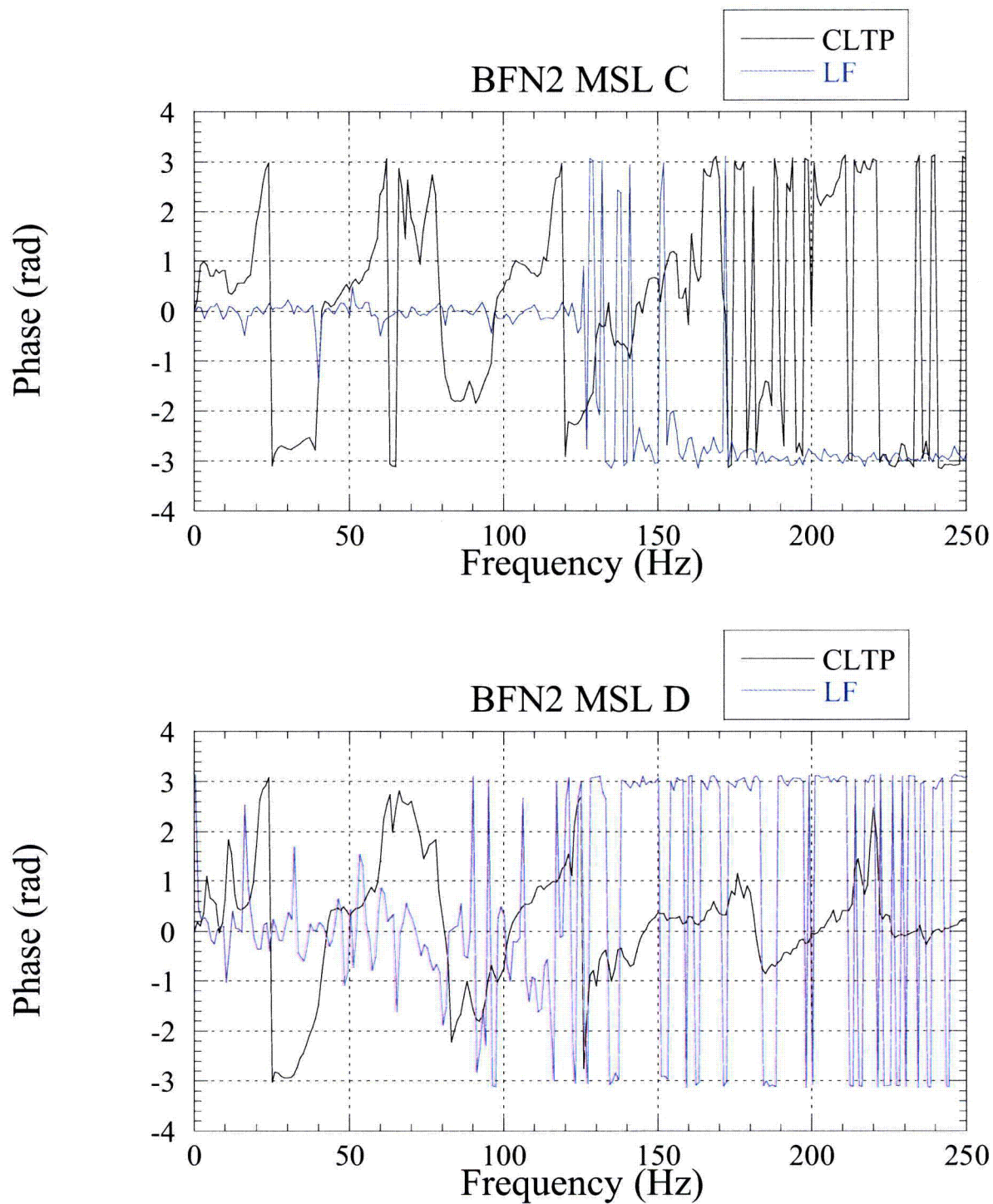


Figure EMCB.164-2.15b: Phase of notch filtered data for BFN2 main steam line C (top) and D (bottom), for CLTP conditions (black) and LF conditions (blue).

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

After Step 4: apply coherence and mean filter

Figure EMCB.164-	Contents
2.17a	PSD of main steam line A upper and lower for CLTP and LF
2.17b	PSD of main steam line B upper and lower for CLTP and LF
2.17c	PSD of main steam line C upper and lower for CLTP and LF
2.17d	PSD of main steam line D upper and lower for CLTP and LF
2.18a	Cross spectra and coherence of main steam line A for CLTP and LF
2.18b	Cross spectra and coherence of main steam line B for CLTP and LF
2.18c	Cross spectra and coherence of main steam line C for CLTP and LF
2.18d	Cross spectra and coherence of main steam line D for CLTP and LF
2.19a	Phase of main steam lines A and B for CLTP and LF
2.19b	Phase of main steam lines C and D for CLTP and LF
[[]]
[[]]
[[]]
[[]]

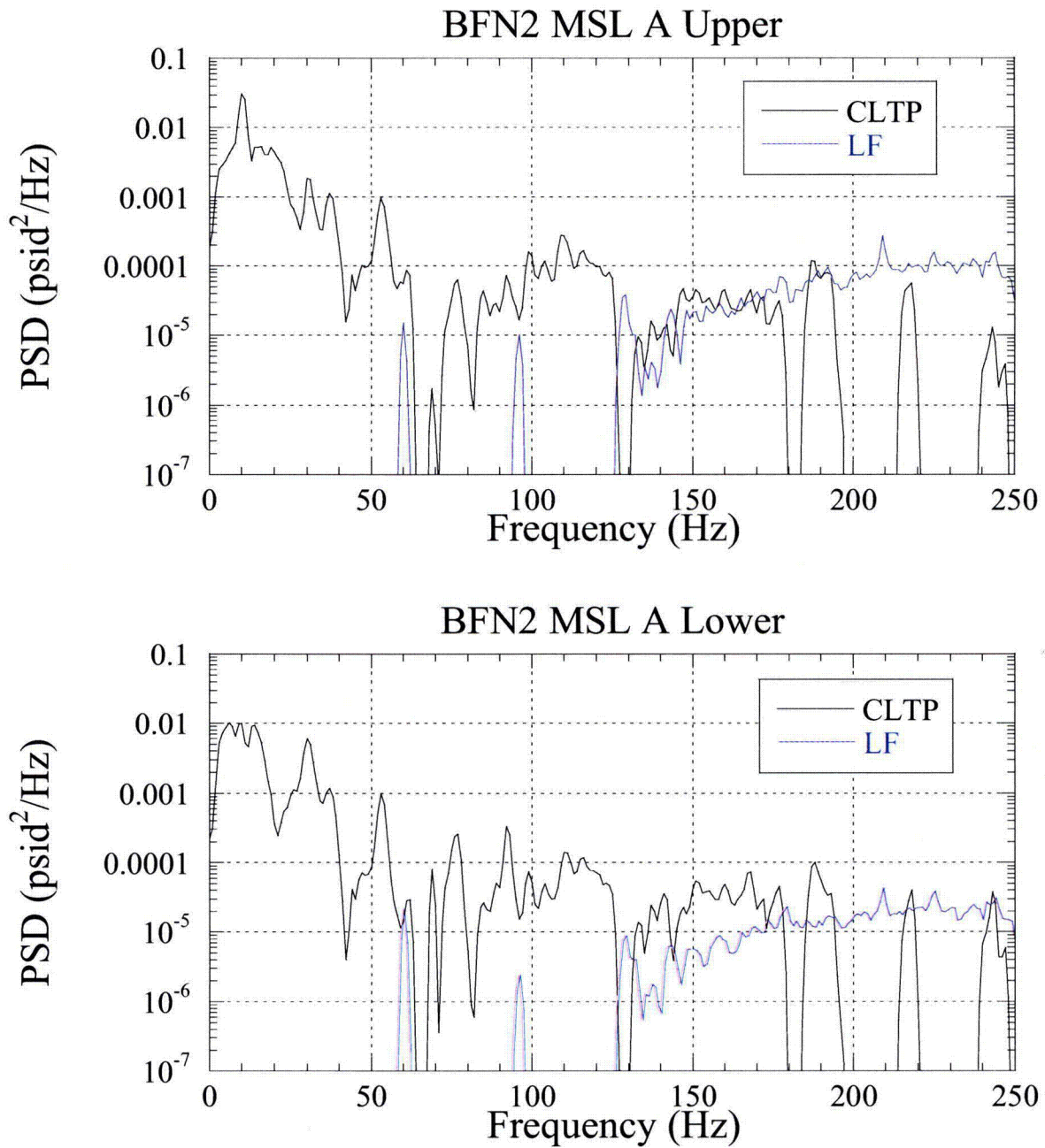


Figure EMCB.164-2.17a: Autospectra of coherence filtered data for BFN2 main steam line A: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and LF conditions (blue).

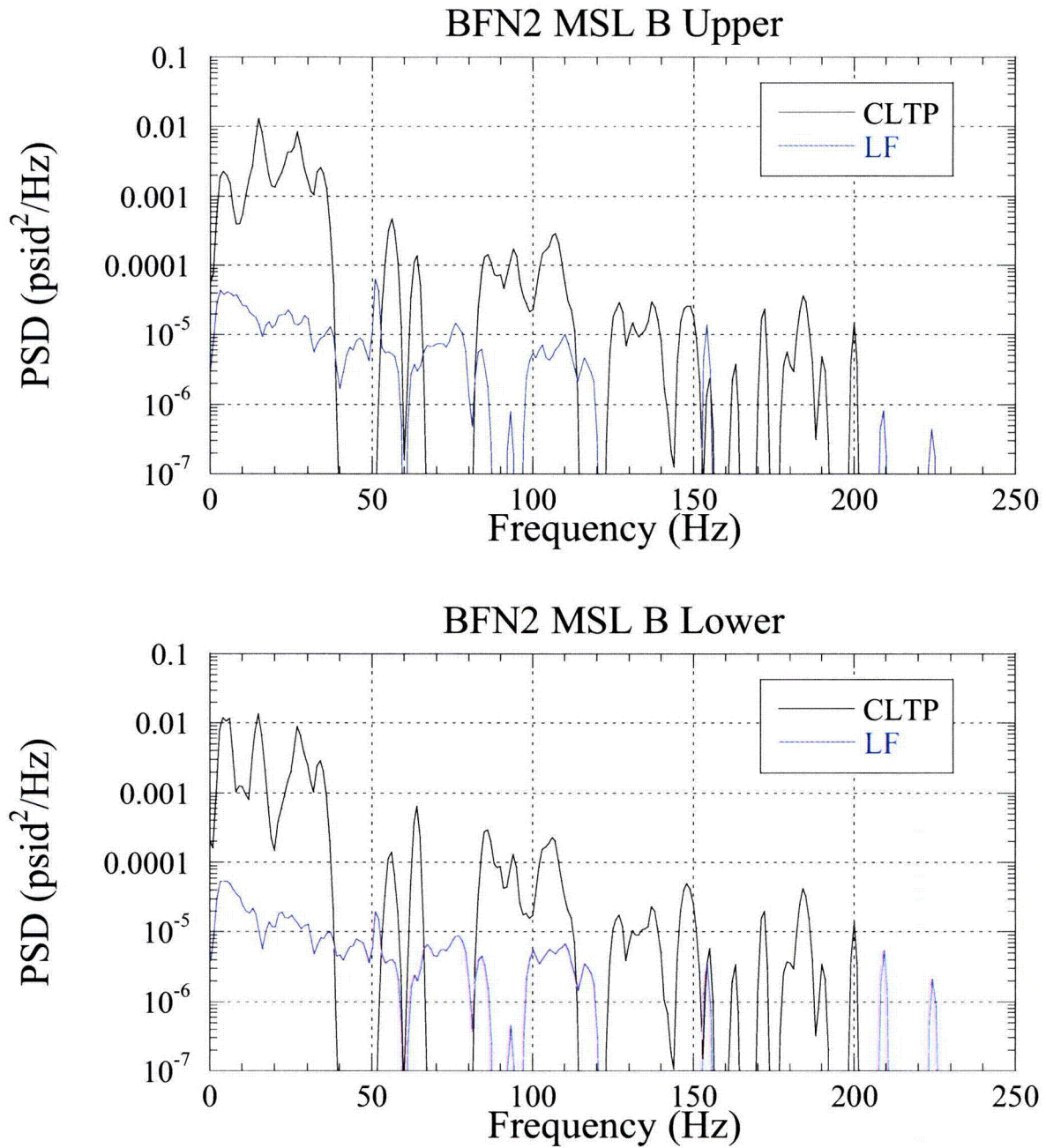


Figure EMCB.164-2.17b: Autospectra of coherence filtered data for BFN2 main steam line B: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and LF conditions (blue).

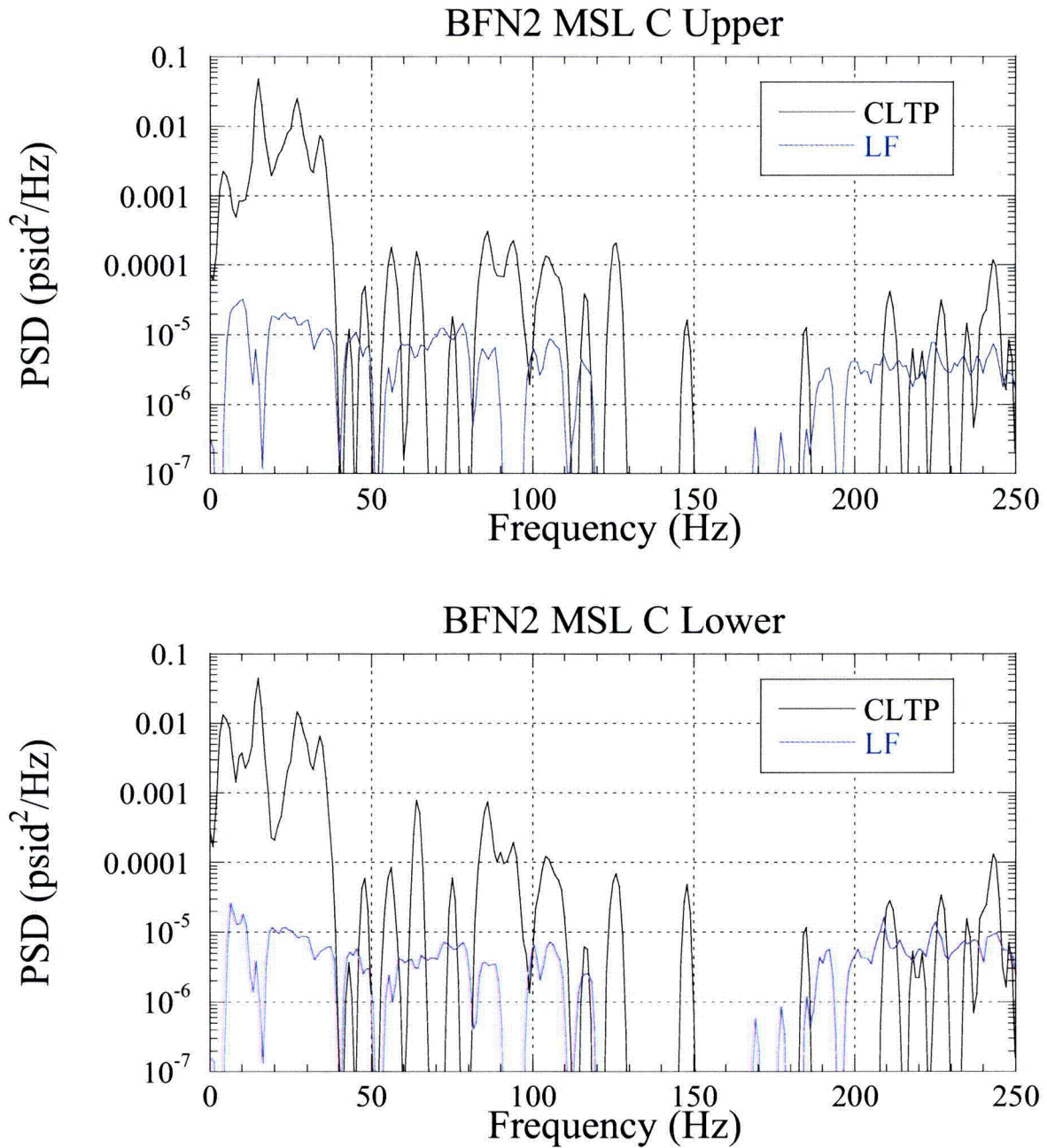


Figure EMC.B.164-2.17c: Autospectra of coherence filtered data for BFN2 main steam line C: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and LF conditions (blue).

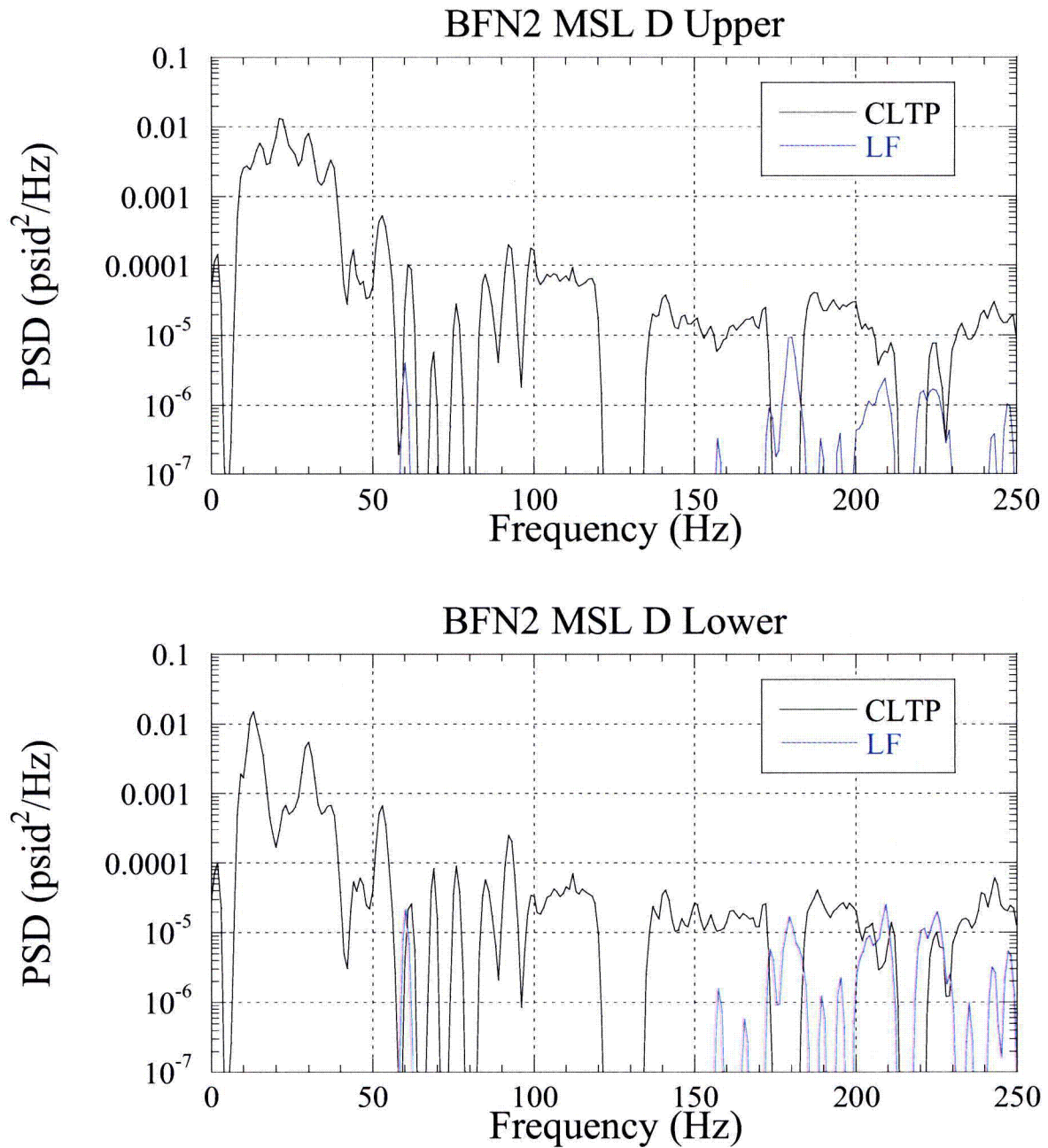


Figure EMCB.164-2.17d: Autospectra of coherence filtered data for BFN2 main steam line D: upper strain gage location (top), lower strain gage location (bottom), for CLTP conditions (black) and LF conditions (blue).

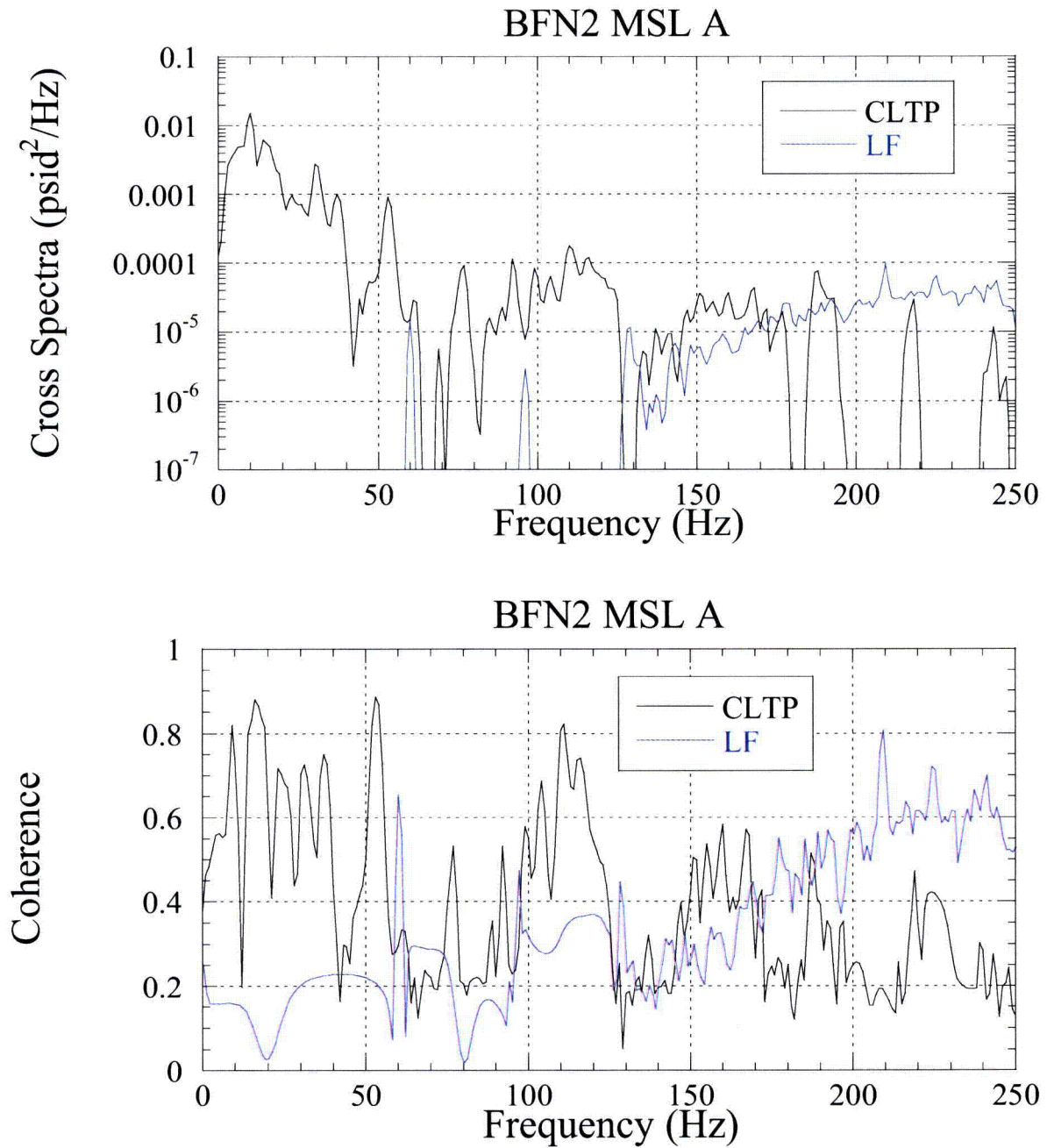


Figure EMCB.164-2.18a: Cross spectra (top) and coherence (bottom) of coherence filtered data for BFN2 main steam line A, for CLTP conditions (black) and LF conditions (blue).

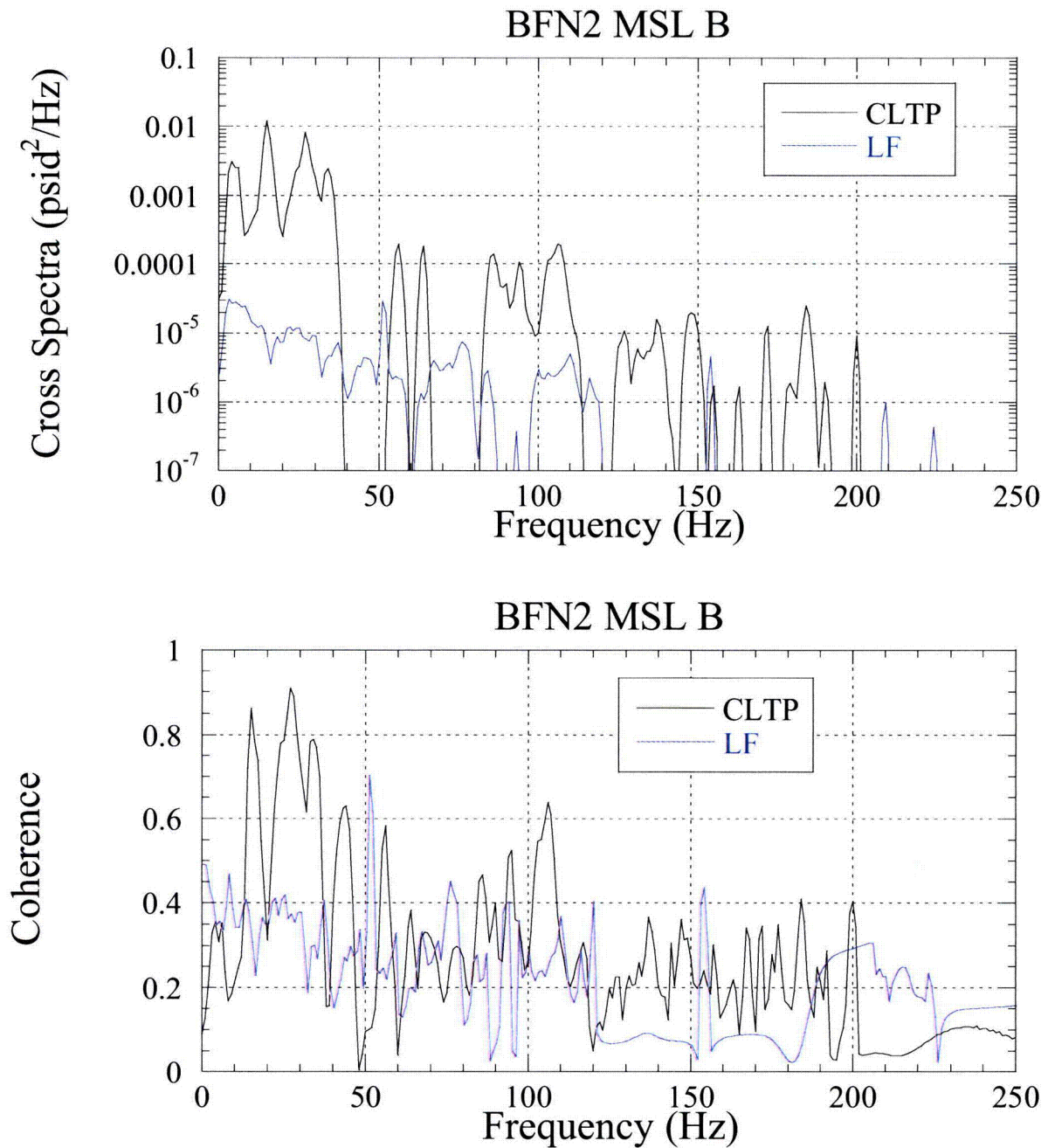


Figure EMC.B.164-2.18b: Cross spectra (top) and coherence (bottom) of coherence filtered data for BFN2 main steam line B, for CLTP conditions (black) and LF conditions (blue).

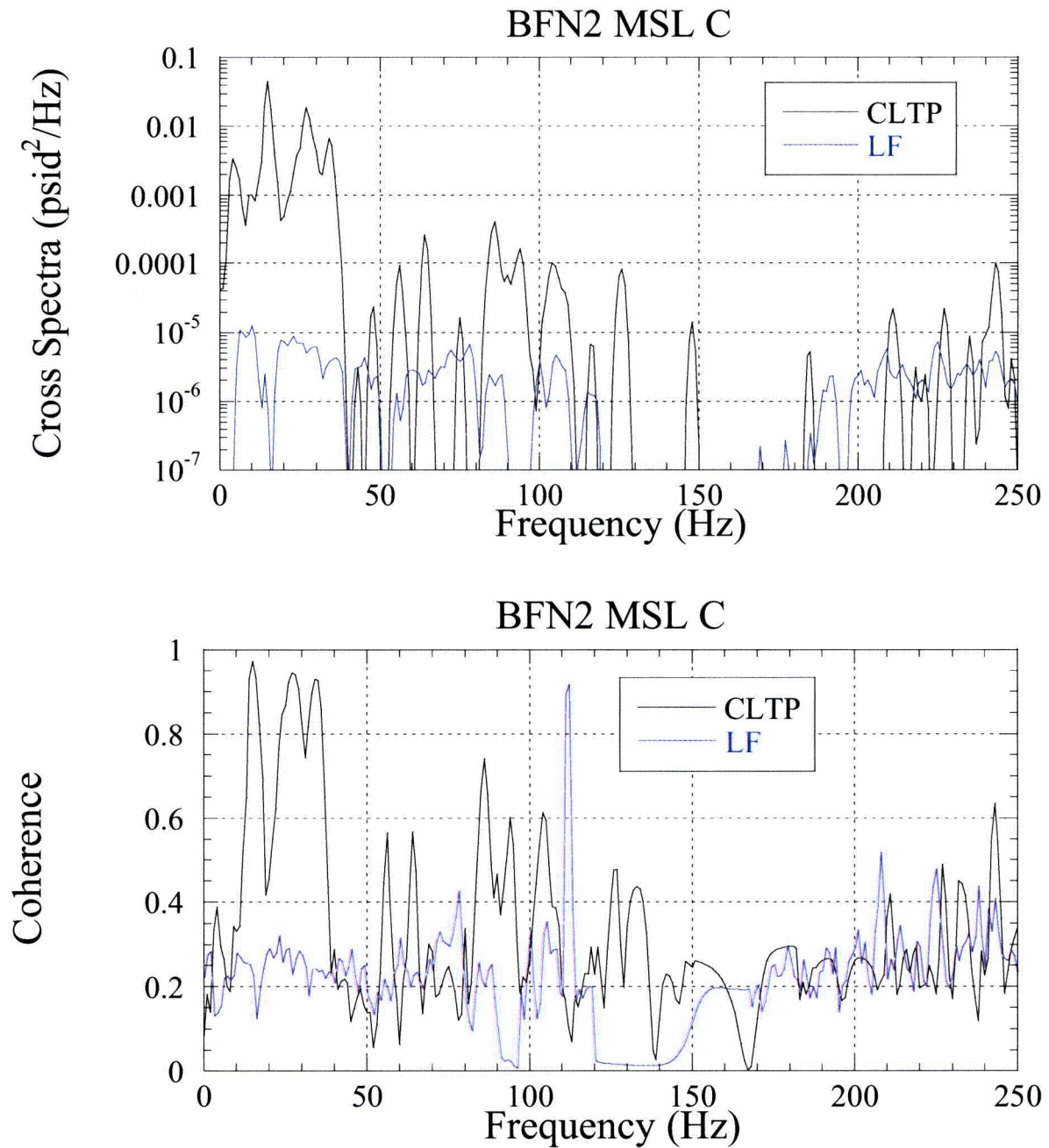


Figure EMC.B.164-2.18c: Cross spectra (top) and coherence (bottom) of coherence filtered data for BFN2 main steam line C, for CLTP conditions (black) and LF conditions (blue).

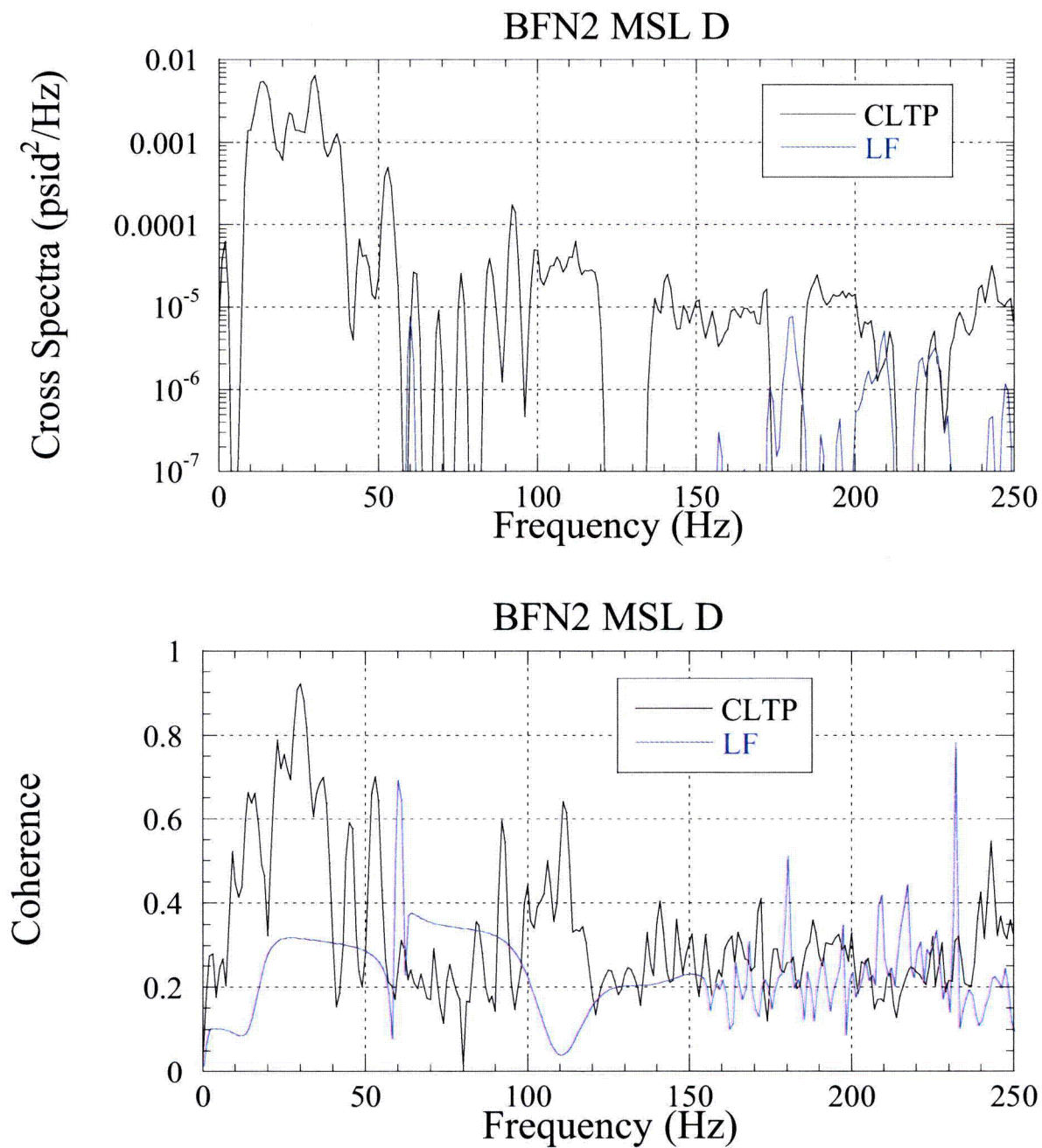


Figure EMC.B.164-2.18d: Cross spectra (top) and coherence (bottom) of coherence filtered data for BFN2 main steam line D, for CLTP conditions (black) and LF conditions (blue).

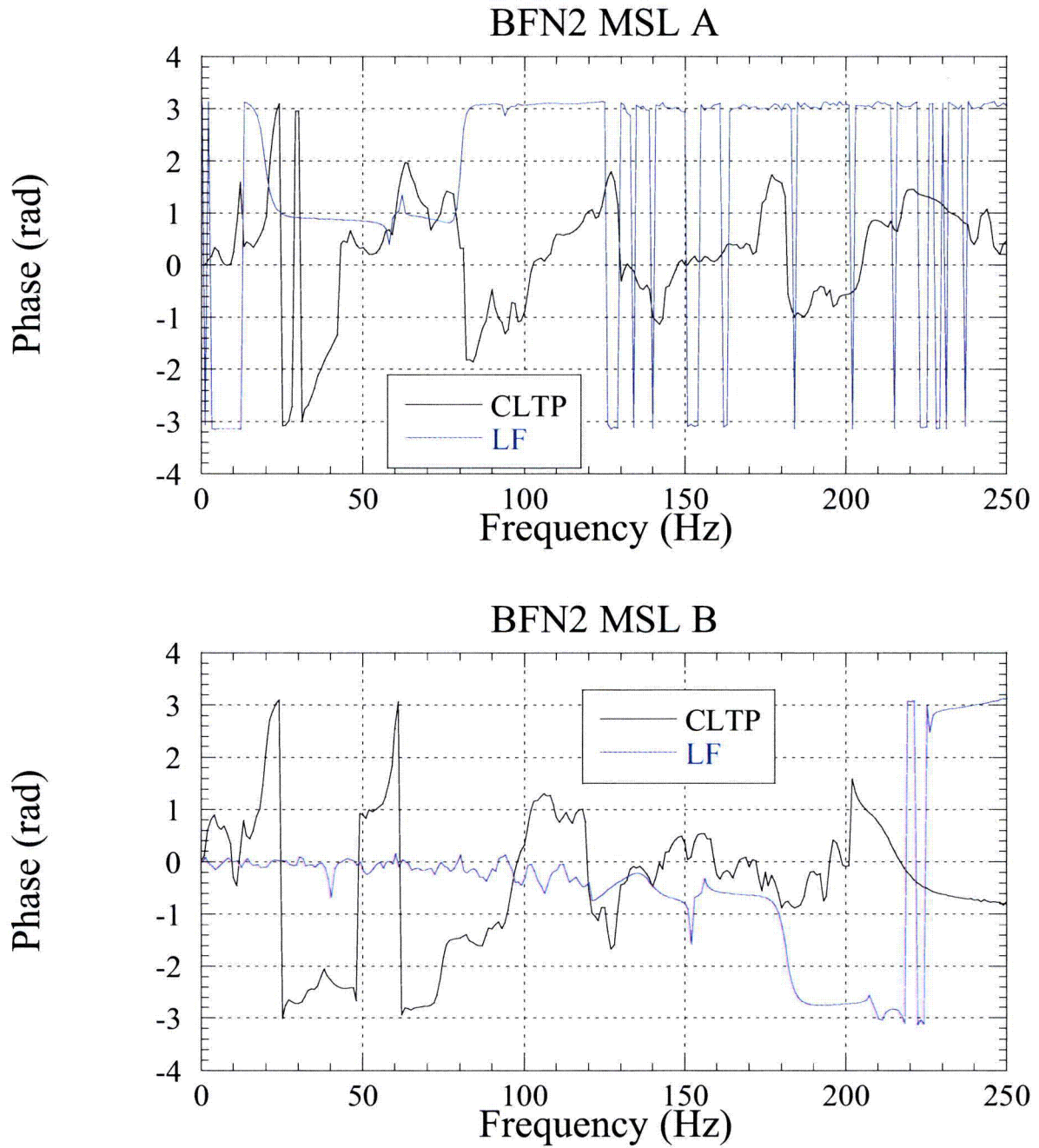


Figure EMCB.164-2.19a: Phase of coherence filtered data for BFN2 main steam line A (top) and B (bottom), for CLTP conditions (black) and LF conditions (blue).

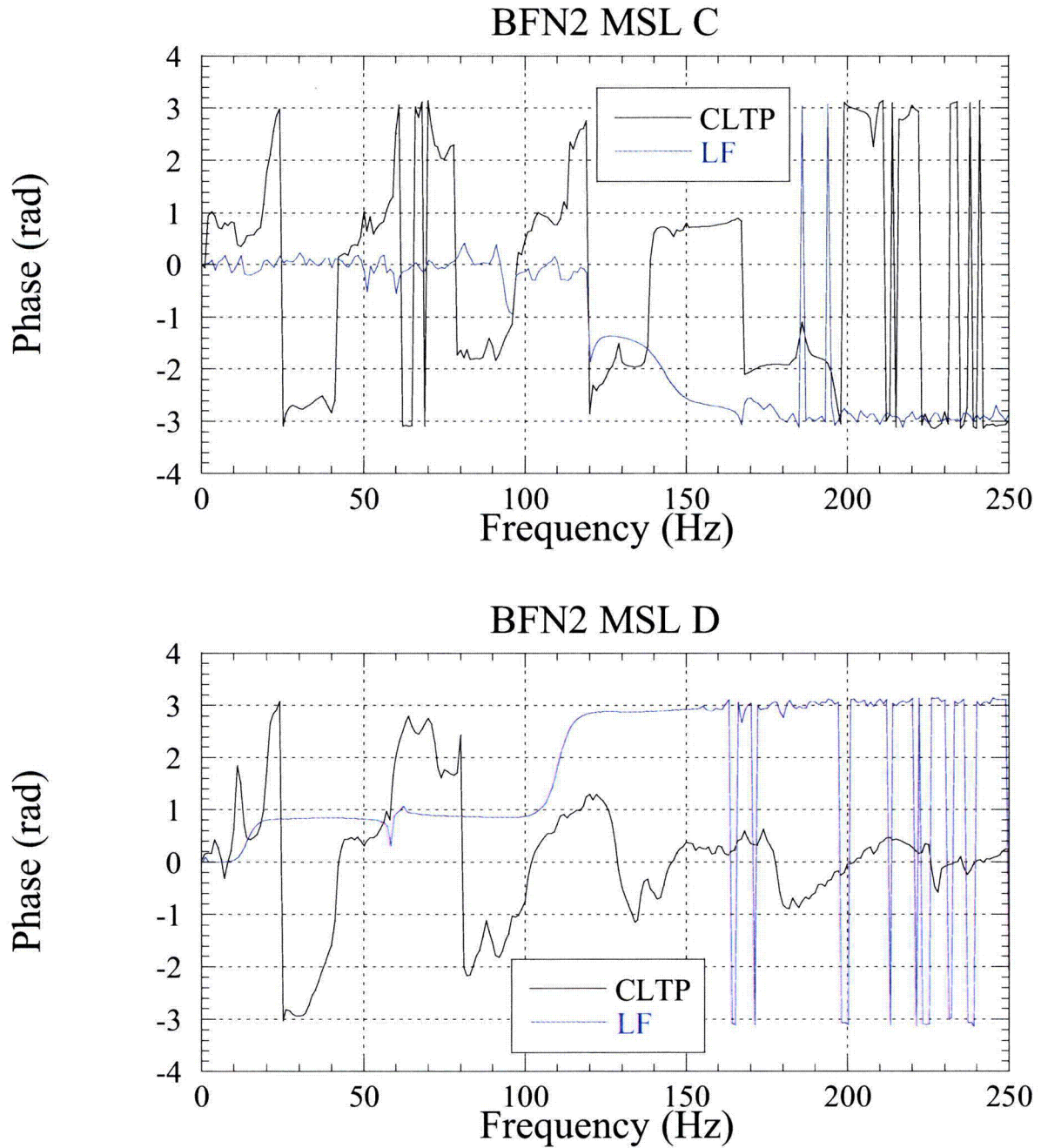


Figure EMCB.164-2.19b: Phase of coherence filtered data for BFN2 main steam line C (top) and D (bottom), for CLTP conditions (black) and LF conditions (blue).

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

After Step 6: subtract low flow and apply bias and uncertainty

Figure EMCB.164-	Contents
2.21a	PSD of main steam line A upper and lower for CLTP
2.21b	PSD of main steam line B upper and lower for CLTP
2.21c	PSD of main steam line C upper and lower for CLTP
2.21d	PSD of main steam line D upper and lower for CLTP
2.22a	Cross spectra and coherence of main steam line A for CLTP
2.22b	Cross spectra and coherence of main steam line B for CLTP
2.22c	Cross spectra and coherence of main steam line C for CLTP
2.22d	Cross spectra and coherence of main steam line D for CLTP
2.23a	Phase of main steam lines A and B for CLTP
2.23b	Phase of main steam lines C and D for CLTP
[[]]
[[]]
[[]]
[[]]

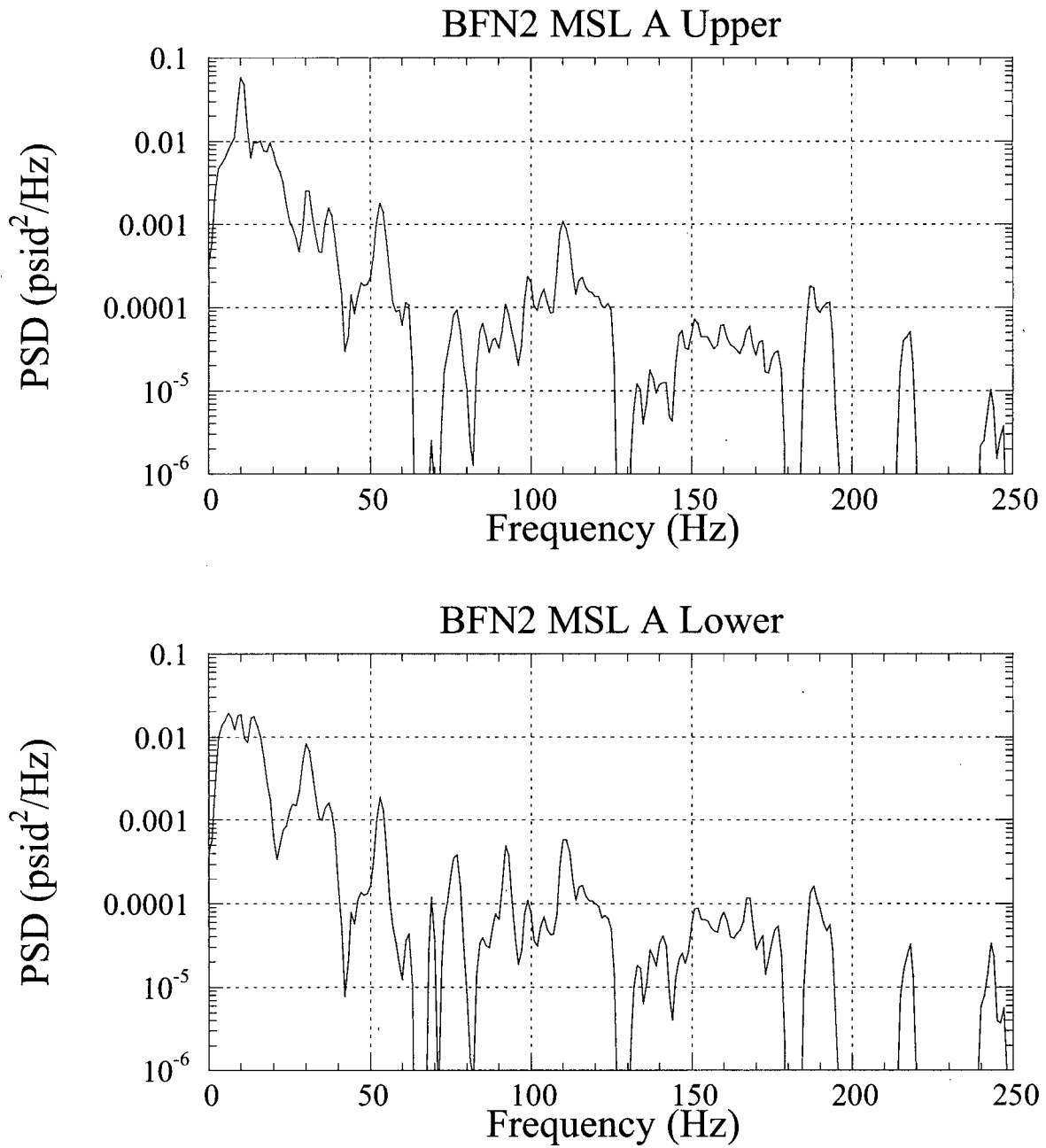


Figure EMCB.164-2.21a: Autospectra of CLTP data with LF subtracted and bias and uncertainty applied, for BFN2 main steam line A: upper strain gage location (top), lower strain gage location (bottom).

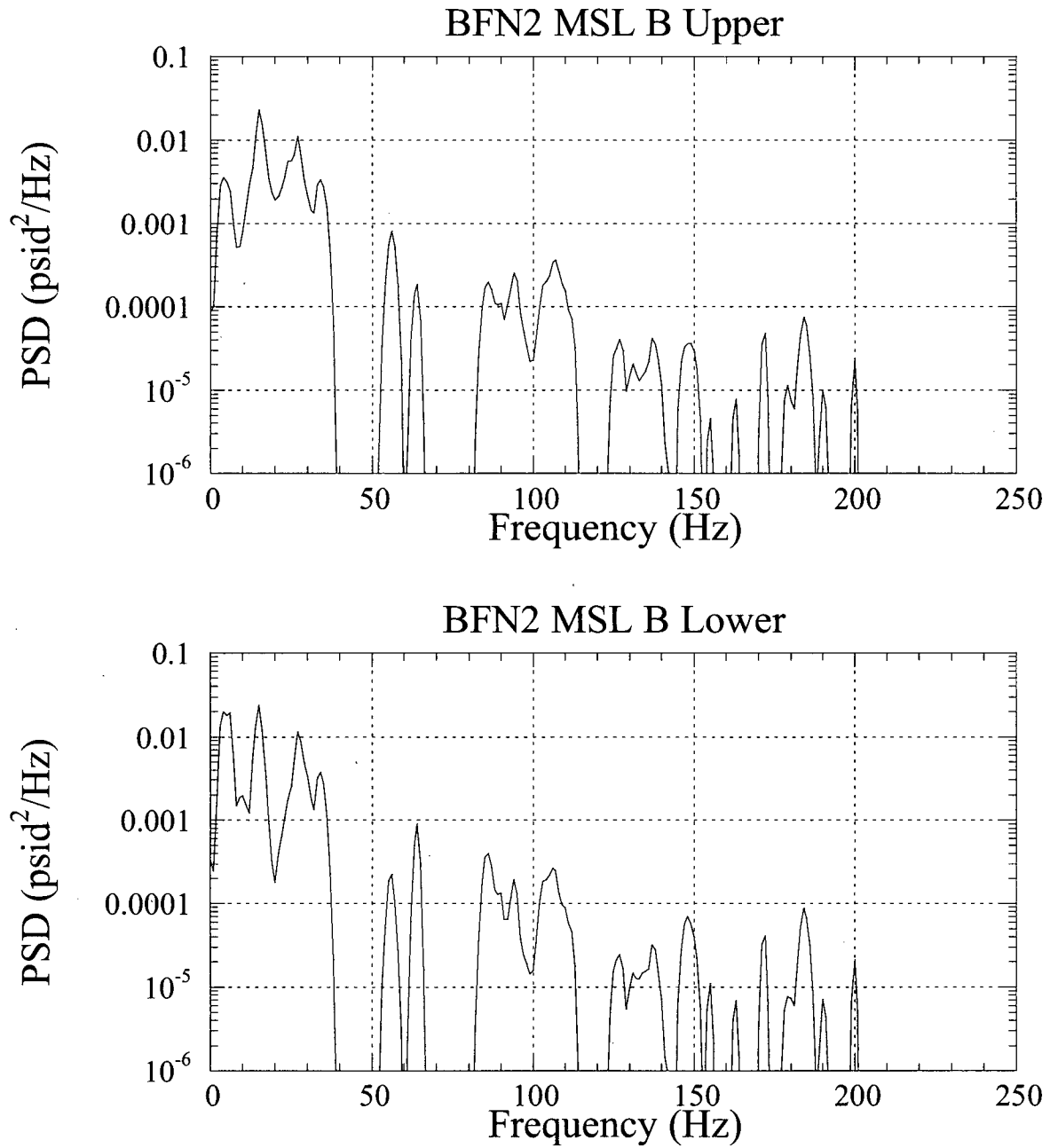


Figure EMCB.164-2.21b: Autospectra of CLTP data with LF subtracted and bias and uncertainty applied, for BFN2 main steam line B: upper strain gage location (top), lower strain gage location (bottom).

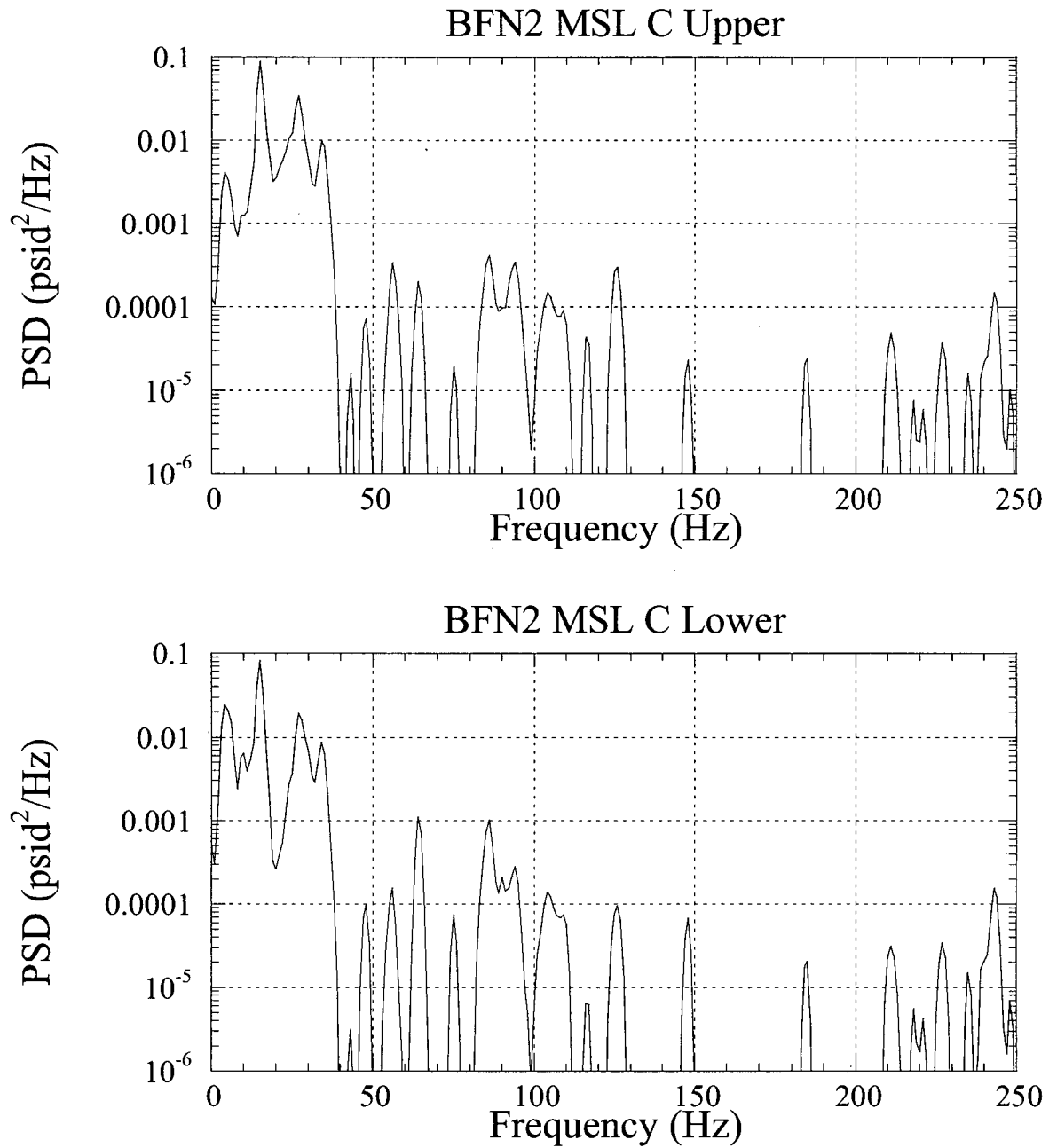


Figure EMC.B.164-2.21c: Autospectra of CLTP data with LF subtracted and bias and uncertainty applied, for BFN2 main steam line C: upper strain gage location (top), lower strain gage location (bottom).

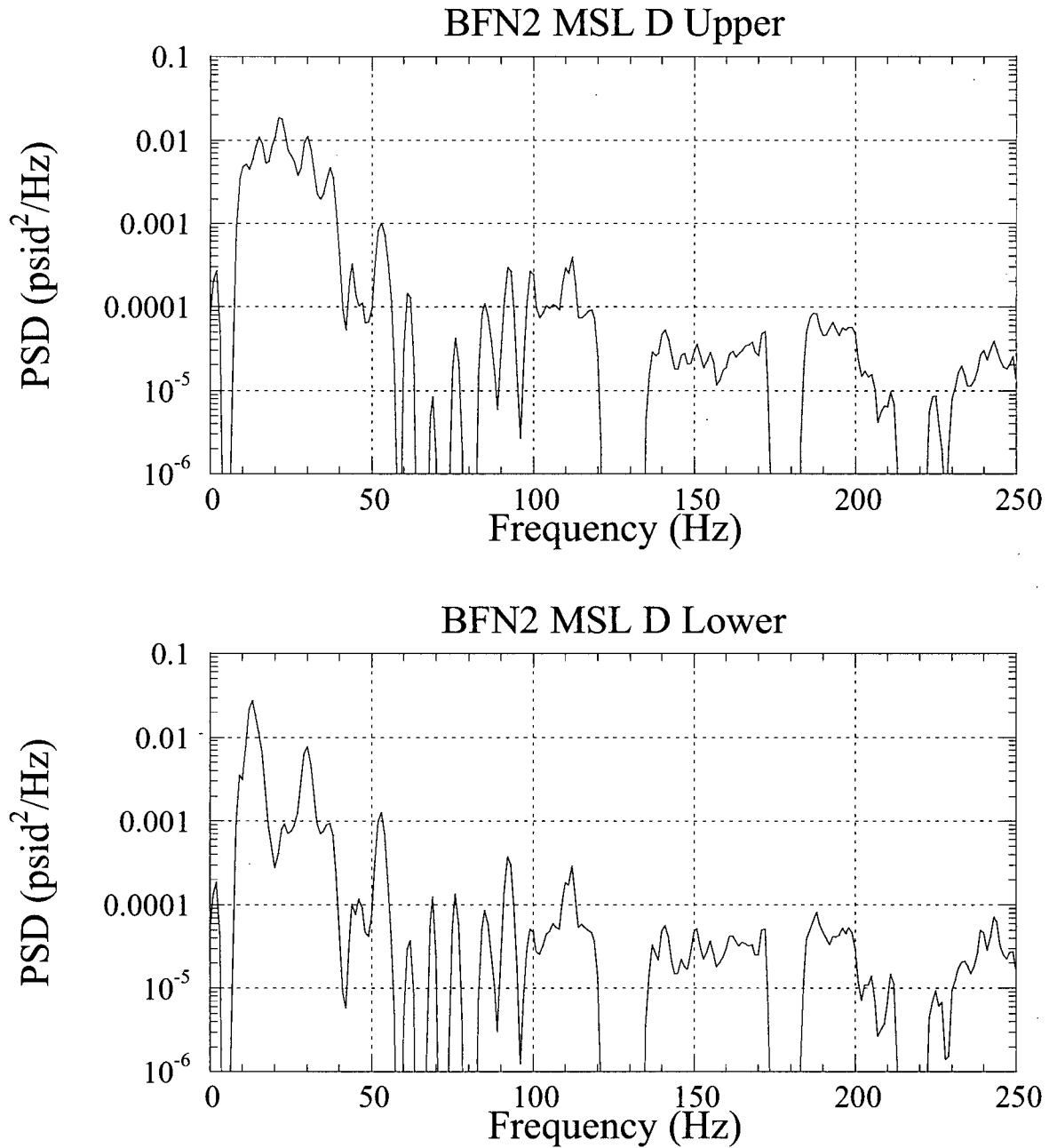


Figure EMC.B.164-2.21d: Autospectra of CLTP data with LF subtracted and bias and uncertainty applied, for BFN2 main steam line D: upper strain gage location (top), lower strain gage location (bottom).

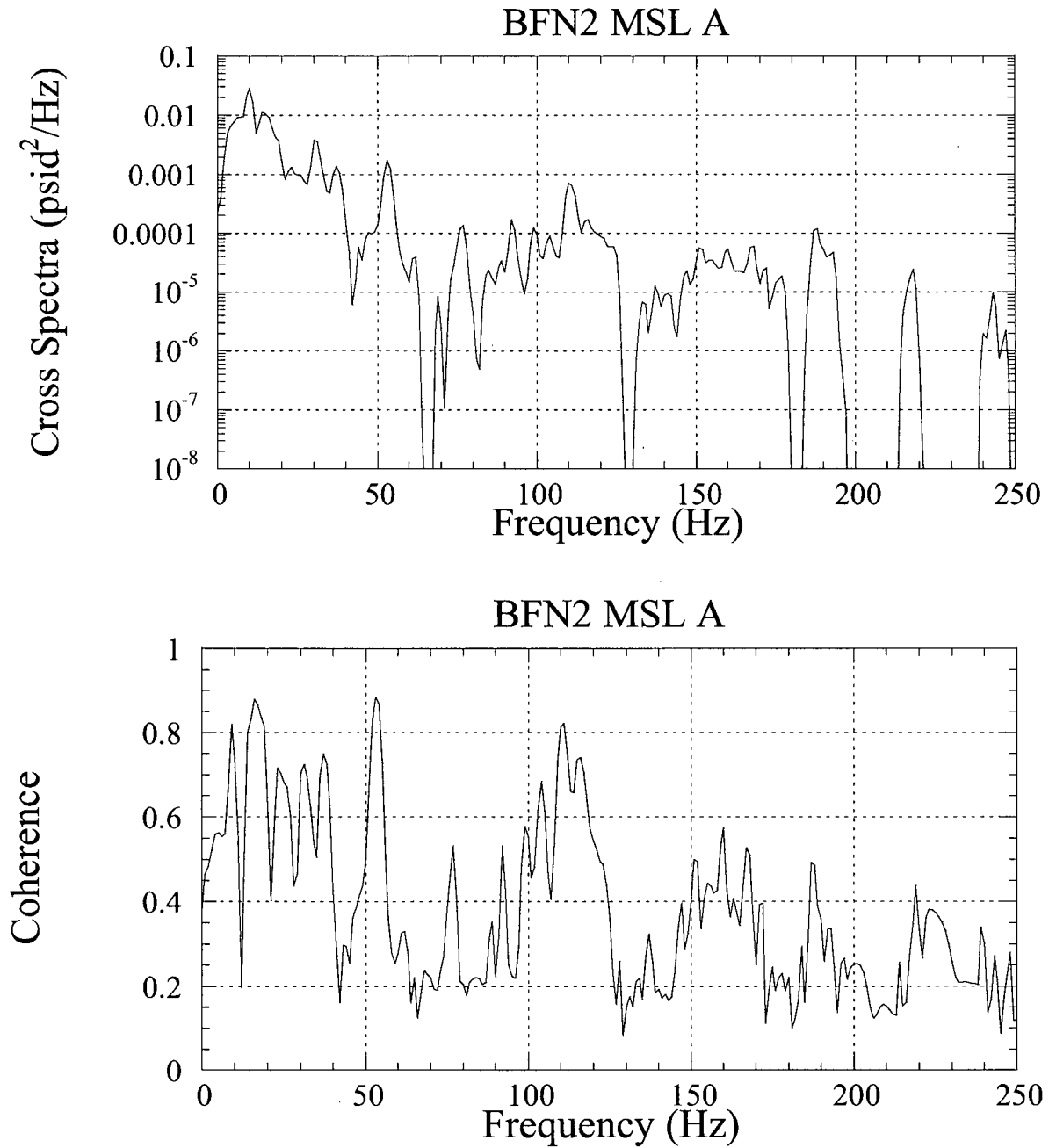


Figure EMC.B.164-2.22a: Cross spectra (top) and coherence (bottom) of CLTP data with LF subtracted and bias and uncertainty applied, for BFN2 main steam line A.

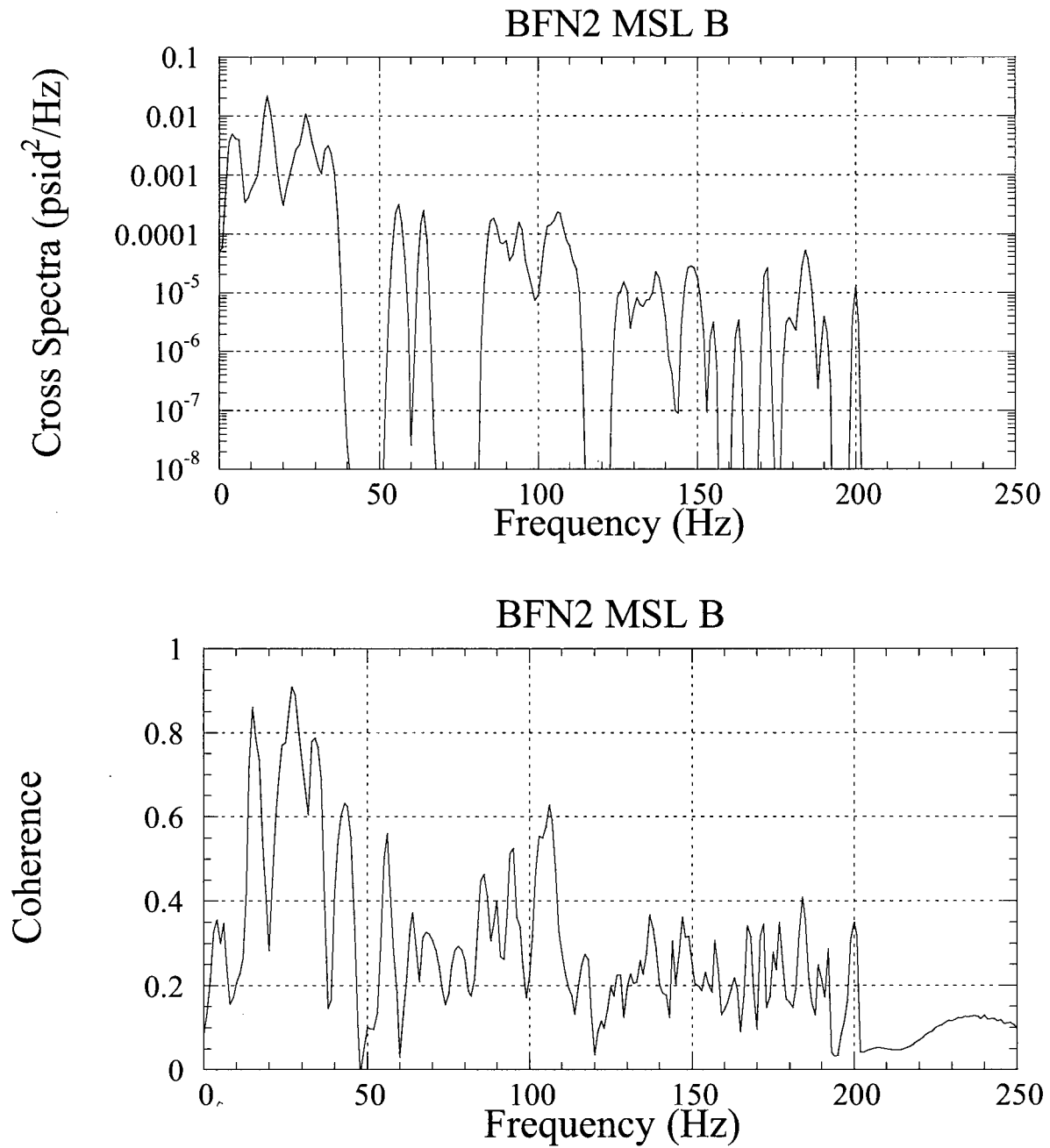


Figure EMC.B.164-2.22b: Cross spectra (top) and coherence (bottom) of CLTP data with LF subtracted and bias and uncertainty applied, for BFN2 main steam line B.

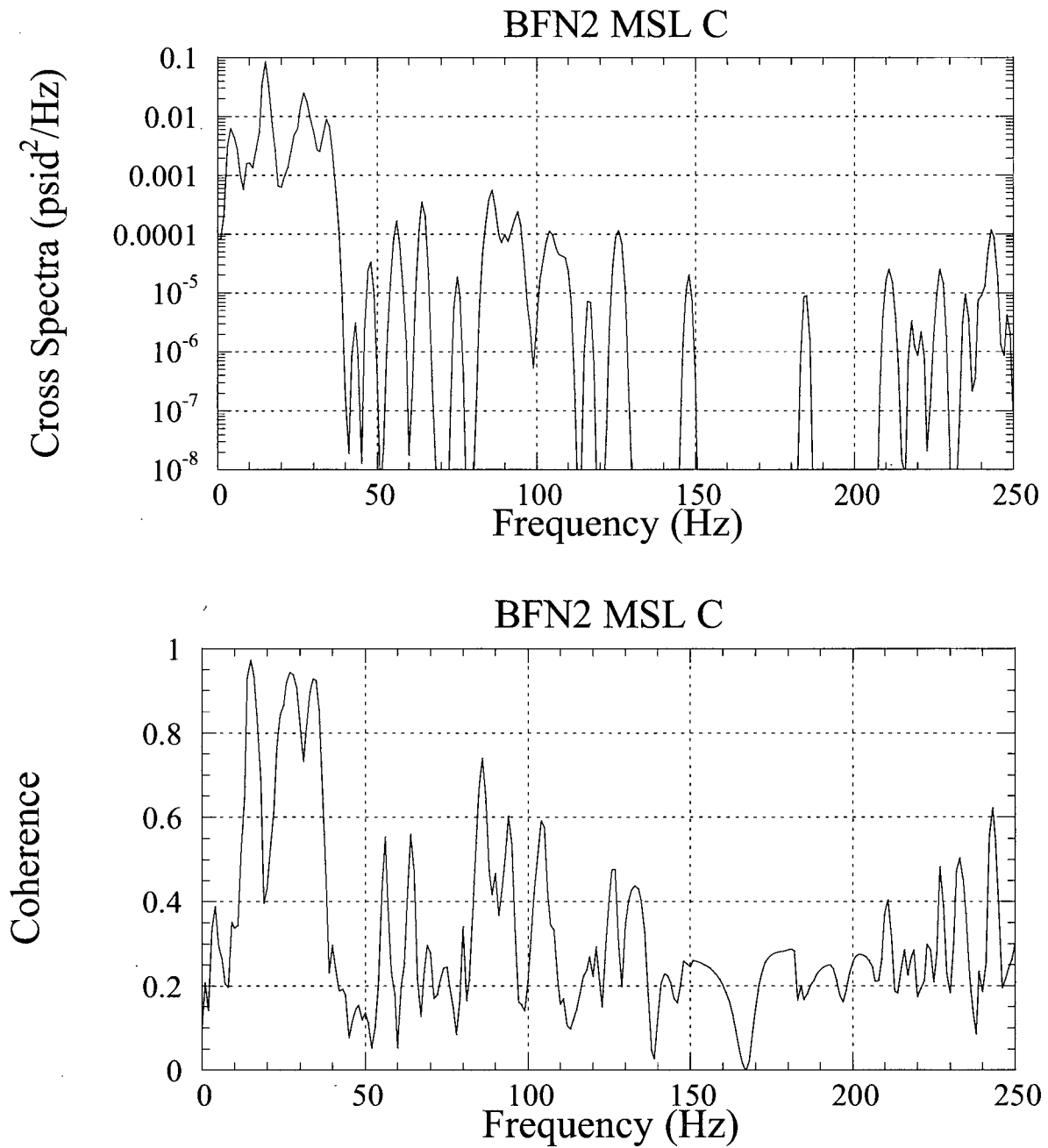


Figure EMC.B.164-2.22c: Cross spectra (top) and coherence (bottom) of CLTP data with LF subtracted and bias and uncertainty applied, for BFN2 main steam line C.

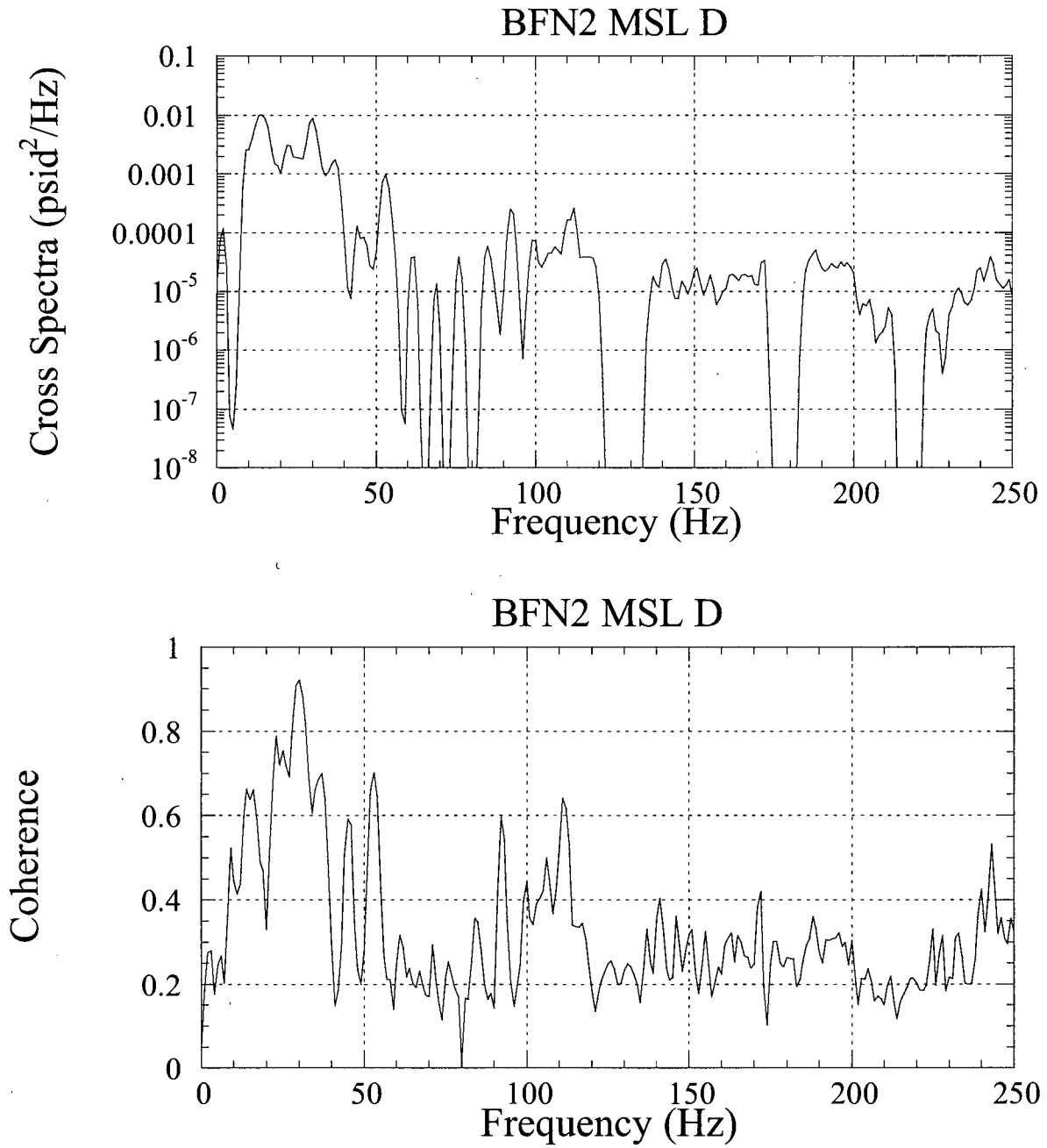


Figure EMC.B.164-2.22d: Cross spectra (top) and coherence (bottom) of CLTP data with LF subtracted and bias and uncertainty applied, for BFN2 main steam line D.

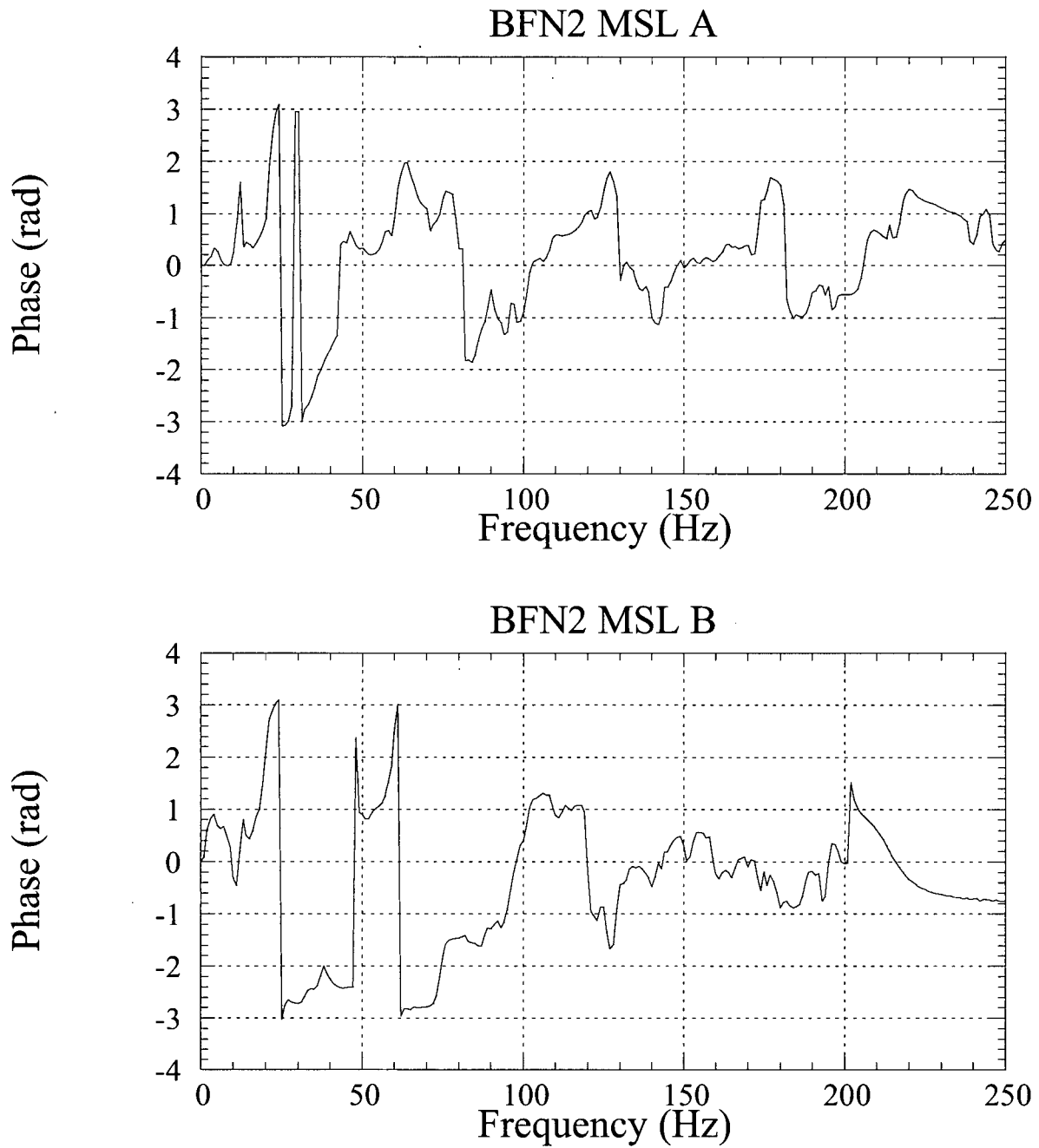


Figure EMCB.164-2.23a: Phase of CLTP data with LF subtracted and bias and uncertainty applied, for BFN2 main steam line A (top) and B (bottom).

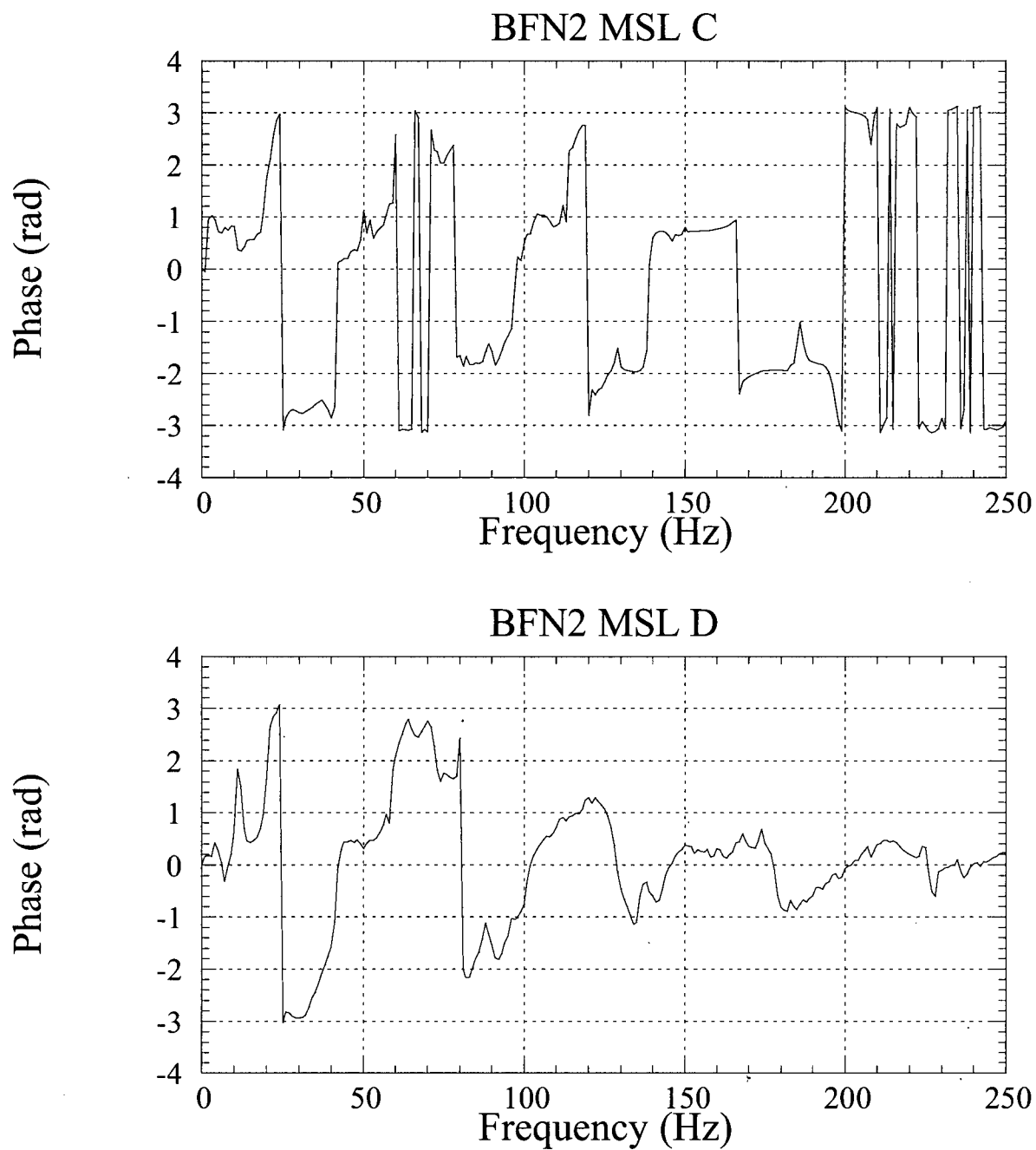


Figure EMC.B.164-2.23b: Phase of CLTP data with LF subtracted and bias and uncertainty applied, for BFN2 main steam line C (top) and D (bottom).

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

NON-PROPRIETARY INFORMATION

[[

]]

ENCLOSURE 3

**TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNITS 1, 2, AND 3**

**TECHNICAL SPECIFICATIONS (TS) CHANGES TS-431 AND TS-418
EXTENDED POWER UPRATE (EPU)**

CDI AFFIDAVIT

Attached is the CDI affidavit for the proprietary information contained in Enclosure 1.

AFFIDAVIT

Re: BROWNS FERRY NUCLEAR PLANT (BFN) – UNITS 1, 2, AND 3 – TECHNICAL SPECIFICATIONS (TS) CHANGES TS-418 AND TS-431 – EXTENDED POWER UPRATE (EPU) – RESPONSE TO ROUND 23 REQUEST FOR ADDITIONAL INFORMATION (RAI) EMCB.203/164 REGARDING STEAM DRYER SIGNAL PROCESSING (TAC NOS. MD5262, MD5263, AND MD5264)

I, Barbara A. Agans, being duly sworn, depose and state as follows:

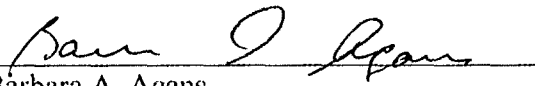
1. I hold the position of Director, Business Administration of Continuum Dynamics, Inc. (hereinafter referred to as C.D.I.), and I am authorized to make the request for withholding from Public Record the Information contained in the documents described in Paragraph 2. This Affidavit is submitted to the Nuclear Regulatory Commission (NRC) pursuant to 10 CFR 2.390(a)(4) based on the fact that the attached information consists of trade secret(s) of C.D.I. and that the NRC will receive the information from C.D.I. under privilege and in confidence.
2. The Information sought to be withheld, as transmitted to TVA Browns Ferry as attachment to C.D.I. Letter No. 09008 dated 22 January 2009, BROWNS FERRY NUCLEAR PLANT (BFN) - UNITS 1, 2, AND 3 – TECHNICAL SPECIFICATIONS (TS) CHANGES TS-418 AND TS-431 – EXTENDED POWER UPRATE (EPU) – RESPONSE TO ROUND 23 REQUEST FOR ADDITIONAL INFORMATION (RAI) EMCB.203/164 REGARDING STEAM DRYER SIGNAL PROCESSING (TAC NOS. MD5262, MD5263, AND MD5264).
3. The Information summarizes:
 - (a) a process or method, including supporting data and analysis, where prevention of its use by C.D.I.'s competitors without license from C.D.I. constitutes a competitive advantage over other companies;
 - (b) Information which, if used by a competitor, would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing of a similar product;
 - (c) Information which discloses patentable subject matter for which it may be desirable to obtain patent protection.

The information sought to be withheld is considered to be proprietary for the reasons set forth in paragraphs 3(a), 3(b) and 3(c) above.

4. The Information has been held in confidence by C.D.I., its owner. The Information has consistently been held in confidence by C.D.I. and no public disclosure has been made and it is not available to the public. All disclosures to third parties, which have been limited, have been made pursuant to the terms and conditions contained in C.D.I.'s Nondisclosure Secrecy Agreement which must be fully executed prior to disclosure.
5. The Information is a type customarily held in confidence by C.D.I. and there is a rational basis therefore. The Information is a type, which C.D.I. considers trade secret and is held in confidence by C.D.I. because it constitutes a source of competitive advantage in the competition and performance of such work in the industry. Public disclosure of the Information is likely to cause substantial harm to C.D.I.'s competitive position and foreclose or reduce the availability of profit-making opportunities.

I declare under penalty of perjury that the foregoing affidavit and the matters stated therein are true and correct to be the best of my knowledge, information and belief.

Executed on this 22 day of JANUARY 2009.


Barbara A. Agans
Continuum Dynamics, Inc.

Subscribed and sworn before me this day: January 22, 2009


Eileen P. Burmeister, Notary Public

EILEEN P. BURMEISTER
NOTARY PUBLIC OF NEW JERSEY
MY COMM. EXPIRES MAY 6, 2012