



Environmental Management Consolidated Business Center Ash Fall Project

Computer Specifications

Procedure: AFP-CS-01
Revision 0, 05/02/16

Computer Specifications

Revision: 0

Effective Date is 3 days after the date of approval

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1.0 PURPOSE

This procedure establishes the responsibilities and process for identifying the computer specifications for the Ash Fall Project.

2.0 SCOPE

The scope of this procedure includes identifying the computer specifications for the organizations/staff in support of the Department of Energy Environmental Management Consolidated Business Center (EMCBC) Ash Fall Project supporting the Office of River Protection (ORP) Program.

3.0 APPLICABILITY

This procedure applies to EMCBC Ash Fall Project personnel who use computers during work activities.

4.0 REQUIREMENTS and REFERENCES

4.1 Requirements

4.1.1 EM-QA-001, *EM Quality Assurance Program (QAP)*

4.1.2 ASME NQA-1-2008/2009a, *Quality Assurance Requirements for Nuclear Facility Applications*

4.2 References

4.2.1 AFP-QAPP-01, *Quality Assurance Project Plan (QAPP)*

4.2.2 AFP-AP-14, *Document Control*

4.2.3 AFP-AP-16, *Receipt Inspection*

4.2.4 AFP-AP-20, *Quality Assurance Records*

5.0 DEFINITIONS and ACRONYMS

None.

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6.0 RESPONSIBILITIES

6.1 ORP Engineering Lead

6.1.1 Identifies computer needs for the organizations/staff providing support to the Ash Fall Project.

6.1.2 Develops, revises and maintains the computer specifications.

6.2 EMCBC Software Custodian

6.2.1 Oversees the procurement of the computers utilizing the computer specifications.

7.0 GENERAL INFORMATION

None.

8.0 PROCEDURE

8.1 Computer Specifications

8.1.1 Upon identification of the computer needs of the project, a computer specification list is developed by the ORP Engineering Lead.

8.1.2 Once the computer specification list is developed, the list is provided to the participants for input. If any changes are needed the list is updated and provided to the EMCBC Software Custodian for further processing and procurement.

8.1.3 The Ash Fall Project staff shall use Attachment A, Computer Specifications for the receipt of the computer equipment in accordance with AFP-AP-16, *Receipt Inspection*.

8.1.4 Any changes to the Attachment A, Computer Specifications will be controlled in accordance with AFP-AP-14, *Document Control*.

9.0 RECORDS

9.1 The approved document in its entirety shall be submitted by the EMCBC Coordinator to records in accordance with AFP-AP-20, *Quality Assurance Records*.

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9.2 The following are considered Lifetime QA Records:

- Computer Specifications

10.0 FORMS USED

None.

11.0 ATTACHMENTS

Attachment A – Computer Specifications

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Attachment A Computer Specifications

April 29, 2016

Organization	No. Needed	Hardware	Software
NOAA System3	1	<p>Workstation</p> <ul style="list-style-type: none"> • OS: RHEL WS v7.0 w/3 YR RHN subscription • Memory: 128 GB (8x 16GB) • Hard Drive: 4x 1.2 TB SAS 10K RPM w/RAID-5 (4x 1.2TB hard drives) • Processor: Dual Intel Xeon E5-2695 v3 (14C, 2.3GHz, 35M) • 3 YR Warranty Services <p>External Network Attached Storage, e.g. Seagate NAS Pro 6-Bay 30 TB Network Attached Storage Drive</p> <p>External USB Drive (backup) e.g. 4 TB USB Hard Drive</p> <p>Intel Fortran and C Compilers</p>	<p>Intel compiler HYSPLIT & related Python Latex Gimp Various libraries (netcdf etc.)</p> <p>- Fortran (ifort) and C (icc) - Perl - MPICH compiled with ifort and icc - /usr/local/mpich - netCDF/usr/local/netCDF4 - NCL - IDL - ImageMagick</p>
EMCBC System4	1	<p>Tower</p> <ul style="list-style-type: none"> • Memory: 32GB (4x8GB) 2133MHz DDR4 RDIMM ECC • Hard Drive: 2TB 3.5” Serial-ATA (7,200 RPM) Hard Drive • 2nd Hard Drive: 2TB 3.5” Serial-ATA (7,200 RPM) Hard Drive 	<p>MS Office Professional (Excel, Word, PowerPoint, and Access) Adobe</p>

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		<ul style="list-style-type: none"> Processor: Intel Xeon Processor E5-2623 v3 (10C, 3.0GHz, Turbo, HT, 10M, 105W) <p>External Network Attached Storage, e.g. Seagate NAS Pro 6-Bay 30 TB Network Attached Storage Drive</p> <p>Second External Network Attached Storage, e.g. Seagate NAS Pro 6-Bay 30 TB Network Attached Storage Drive</p> <p>Intel Fortran and C Compilers</p>	
USGS System2	1	<p>Tower</p> <ul style="list-style-type: none"> Memory: 32GB (4x8GB) 2133MHz DDR4 RDIMM ECC Hard Drive: 1 Tb 2.5” Serial-ATA Solid State Drive Processor: Intel Xeon Processor E5-2650 v3 (10C, 2.3GHz, Turbo, HT, 25M, 105W) 	<p>Matlab (http://www.mathworks.com/) Used to process the output from Ash3d runs, derive statistics, generate plots used in reports with mapping toolbox.</p> <p>GMT (Generic Mapping Tools: http://gmt.soest.hawaii.edu/) Used to make maps of model output</p> <p>Microsoft Excel (or the Linux equivalent, the Libre Office Spreadsheet Program) Used for calculations of some of the results.</p>
DRI System1	2	<p>Tower</p> <ul style="list-style-type: none"> Memory: 32GB (4x8GB) 2133MHz DDR4 RDIMM ECC Hard Drive: 2TB 3.5” Serial-ATA (7,200 RPM) Hard Drive 2nd Hard Drive: 2TB 3.5” Serial-ATA (7,200 RPM) Hard Drive 	<p>MS Office Professional (Excel, Word, PowerPoint, and Access) Adobe or Cutepdf</p>

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		<ul style="list-style-type: none">• Processor: Intel Xeon Processor E5-2623 v3 (10C, 3.0GHz, Turbo, HT, 10M, 105W)	
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Form 12-1 – Record of Revision

DOCUMENT: AFP-CS-01, *Computer Specifications*

Revision Number	Description of Changes	Revision on Pages	Effective Date
0	Initial Issue	All	05/02/2016