



## Environmental Management Consolidated Business Center Ash Fall Project

Computer Specifications

Procedure: AFP-CS-01  
Revision 1, 06/25/16

### Computer Specifications

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**Revision: 1**

**Effective Date is 3 days after the date of approval**

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**Prepared By:** Signature on File 06/21/16  
**Robert Hasson** **Date**  
**Ash Fall Project QA Lead**

**Approved By:** Signature on File 06/21/16  
**Kelly Ebert** **Date**  
**ORP Ash Fall Project Engineer**

**Concurrence:** Signature on File 06/22/16  
**Ken Armstrong** **Date**  
**EMCBC Assistant Director,**  
**Office of Technical Support and Asset Management**

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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

6.6.1 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**

**June 21, 2016**

<b>System 1</b>	<b>Organization: DRI</b>	<b>Quantity: 2</b>
<p><b><u>Deliver to:</u></b></p> <p>There are 2 delivery addresses, each unit will go to one.</p> <p>Vic Etyemezian DRI 755 E. flamingo Rd Las Vegas, Nevada 89119 702 862 5400</p> <p>Jack Gillies DRI 2215 Raggio Parkway Reno, Nevada 89512 775-674-7035</p>	<p><b><u>Hardware To Supply</u></b></p> <p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Memory: 32GB (4x8GB) 2133MHz DDR4 RDIMM ECC</li> <li>• Internal Storage: 2x HDDs -- 3.5" Serial-ATA (7,200 RPM) 2TB each</li> <li>• Processor: Intel Xeon Processor E5-2623 v3 (10C, 3.0GHz, Turbo, HT, 10M, 105W)</li> <li>• Power supply: sufficient to power current system, extra wattage and redundancy not needed</li> <li>• Disc drive: None</li> </ul> <p><b>Peripherals</b></p> <ul style="list-style-type: none"> <li>• Keyboard and mouse NOT required</li> </ul>	<p><b><u>Software to Supply</u></b></p> <p>OS: Prefer Windows 2010 or 2007. Windows 2008 is not desirable, but acceptable.</p> <p>-MS Office Professional 2016 (Excel, Word, PowerPoint, and Access)</p> <p>-Adobe Acrobat 10.0+ or CutePDF Pro 3.73+</p> <p><b><u>System must be able to run:</u></b></p> <p>-MS Office Professional 2016 (Excel, Word, PowerPoint, and Access)</p> <p>-Adobe Acrobat 10.0+ or CutePDF Pro 3.73+</p>

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<b>System 2</b>	<b>Organization: USGS</b>	<b>Quantity: 1</b>
<p><b><u>Deliver to:</u></b></p> <p><b>1300 SE Cardinal Court Bldg. 10, Suite 100 Vancouver, WA 98683</b></p>	<p><b><u>Hardware To Supply</u></b></p> <p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Memory: 32GB (4x8GB) 2133MHz DDR4 RDIMM ECC</li> <li>• Internal Storage: 2.5” Serial-ATA Solid State Drive 1TB</li> <li>• Processor: Intel Xeon Processor E5-2650 v3 (10C, 2.3GHz, Turbo, HT, 25M, 105W)</li> <li>• Power supply: sufficient to power current system, extra wattage and redundancy not needed</li> <li>• Disc drive: None</li> </ul> <p><b>Peripherals</b></p> <ul style="list-style-type: none"> <li>• Standard keyboard &amp; mouse</li> <li>• Smartcard reader NOT required</li> </ul>	<p><b><u>Software to Supply</u></b></p> <p>-Ubuntu Desktop 16.04 LTS -LibreOffice</p> <p><b><u>System must be able to run:</u></b></p> <p>-Ubuntu Desktop 16.04 LTS -LibreOffice -Matlab R2016a (<a href="http://www.mathworks.com/">http://www.mathworks.com/</a>) - GMT (Generic Mapping Tools: <a href="http://gmt.soest.hawaii.edu/">http://gmt.soest.hawaii.edu/</a>)</p>

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<b>System 3</b>	<b>Organization: NOAA</b>	<b>Quantity: 1</b>
<p><b><u>Deliver to:</u></b></p> <p><b>National Oceanic and Atmospheric Administration Attn: Ogie Olanday Air Resources Laboratory NCWCP, R/ARL, Room 4204 5830 University Research Court College Park, MD 20740-3818 Tel: 301-683-1371</b></p>	<p><b><u>Hardware To Supply</u></b></p> <p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Memory: 128 GB (8x 16GB)</li> <li>• Internal Storage: 4x HDDs -- SAS 10K RPM w/RAID-5 1.2TB each (4x 1.2TB hard drives)</li> <li>• Processor: Dual Intel Xeon E5-2695 v3 (14C, 2.3GHz, 35M)</li> <li>• 3-year Warranty Services</li> <li>• Power supply: 1100-Watt redundant power supply</li> <li>• Disc drive: DVD+/-RW internal drive</li> </ul> <p><b>Peripherals</b></p> <ul style="list-style-type: none"> <li>• External Network Attached Storage at least 30TB (e.g. Seagate NAS Pro 6-Bay 30 TB)</li> <li>• External USB Drive (backup) at least 4TB (e.g. 4 TB USB Hard Drive)</li> <li>• Keyboard and mouse NOT required</li> </ul>	<p><b><u>Software to Supply</u></b></p> <p>-OS: Red Hat Enterprise Linux Workstation v7.0 with 3-year Standard RHN subscription</p> <p>-Intel Fortran Compiler</p> <p>-Intel C Compiler</p> <p><b><u>System must be able to run:</u></b></p> <p>-RHEL WS v7.0</p> <p>-Intel compiler:   HYSPLIT &amp; related   Python   Latex   Gimp   Various libraries (netcdf etc.)</p> <p>-Fortran (ifort) and C (icc)</p> <p>-Perl</p> <p>-MPICH compiled with ifort and icc - /usr/local/mpich</p> <p>-netCDF/usr/local/netCDF4</p> <p>-NCL</p> <p>-IDL</p> <p>-ImageMagick</p>

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<b>System 4</b>	<b>Organization: EMCBC</b>	<b>Quantity: 1</b>	
<p><b><u>Deliver to:</u></b></p> <p>TBD</p>	<p><b><u>Hardware To Supply</u></b></p> <p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Memory: 32GB (4x8GB) 2133MHz DDR4 RDIMM ECC</li> <li>• Hard Drive: 2TB 3.5” Serial-ATA (7,200 RPM) Hard Drive</li> <li>• 2<sup>nd</sup> Hard Drive: 2TB 3.5” Serial-ATA (7,200 RPM) Hard Drive</li> <li>• Processor: Intel Xeon Processor E5-2623 v3 (10C, 3.0GHz, Turbo, HT, 10M, 105W)</li> <li>• Power supply: sufficient to power current system, extra wattage and redundancy not needed</li> <li>• Disc drive: None</li> </ul> <p><b>Peripherals</b></p> <ul style="list-style-type: none"> <li>• 2x External Network Attached Storage at least 30TB each (e.g. Seagate NAS Pro 6-Bay 30 TB)</li> <li>• Keyboard and mouse NOT required</li> </ul>		<p><b><u>Software to Supply</u></b></p> <p>OS: TBD</p> <ul style="list-style-type: none"> <li>-MS Office Professional 2016 (Excel, Word, PowerPoint, and Access)</li> <li>-Adobe Acrobat 10.0+</li> <li>-Intel Fortran Compiler</li> <li>-Intel C Compiler</li> </ul> <p><b><u>System must be able to run:</u></b></p> <ul style="list-style-type: none"> <li>-MS Office Professional 2016 (Excel, Word, PowerPoint, and Access)</li> <li>-Adobe Acrobat 10.0+</li> <li>-Intel Fortran Compiler</li> <li>-Intel C Compiler</li> </ul>

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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
1	Revised Attachment A - Computer Specifications	5,6,7,8	06/25/2016