

Summary
Environmental Work in accordance with the
Louisville District Military Design Guide

May 12, 2020 revised

- I. Purpose: the purpose of this document is to summarize the environmental requirements for the Louisville District's military construction projects (using Full Plans and Specs RFPs) in order to assist the AE in assembling a more complete package.
- A. Edited versions of the following specifications are required on every Design Bid Build project unless an exception is noted. It should be noted that specifications change often. The most current versions should be obtained from the following web site:
<https://lrl.usace.afpims.mil/Missions/Engineering/Specs.aspx>
- Note: Reserves and Ft. Campbell and Wright Patterson Air Force Base have separate specification packages.
- 01 57 19 00 06 Temporary Environmental Controls and Permits
 - 01 74 19 Construction Demolition Waste Management
 - 01 35 26 Government Safety Requirements
- B. If renovation or demolition of structures is to be performed edited versions of the following may also be required.
- 02 82 16.00 20 Engineering Control of Asbestos Containing Materials
 - 02 83 13 00 06 Lead in Construction
 - 01 74 19 Construction Demolition Waste Management
 - 02 41 00 Demolition
 - 02 84 16 Handling of Lighting Ballasts and Lamps Containing PCBs
 - 02 84 33 Removal and Disposal of Polychlorinated Biphenyls (PCBs)
 - 31 21 13 Radon Mitigation
- C. Section 0800 Special Provisions has some requirements that we think are important enough to point out in this guidance document. The following items must appear in section 0800:
1. NO ASBESTOS - CONTAINING MATERIAL (ACM) CERTIFICATION

2. Before final payment to the contractor, the contractor's project engineer/manager will sign and submit to the government, on the contracting firm's letterhead, a dated copy of the following statement:

I hereby certify that to the best of my knowledge no asbestos-containing material (ACM) was used as a building material during this project.

I understand that the building owner presumes that all materials marked 'May contain mineral fibers' are asbestos unless I either

- Have on file and have submitted to the Government the manufacturer's certification that the material does not contain asbestos, or
- Have supplied to the Government documentation to show that the material has been microscopically examined by an AIHA- or NVLAP-certified laboratory and the lab has determine that it that it does not contain asbestos."

- D. It is important that Section 01 57 19 00 06 Temporary Environmental Controls and Permits appropriately address borrow material and excess soil. Therefore the following must be edited appropriately and included. If the language options below do not appear in the specification being used, it is not the correct specification.

MANAGEMENT OF BORROW MATERIAL AND EXCESS SOIL

Depending on the specifics of the project, the specification preparer shall choose one of the following or all four options:

1. [Under this contract, the intent is that all excavated soils are to be reused on-site to the greatest extent practicable and economically justified and the use of borrow from off-site sources shall be avoided to the greatest extent practicable and economically justified. (If available, the Government will identify on the contract drawings disposal areas and/or borrow areas outside the construction work limits on the Government installation where excess soils may be taken. Any compaction or grading requirements will be noted on the drawings or in the specifications.)]
2. [If reuse of all excavated soils is not practical or economical and disposal on the Government installation is not available, then all soil removed from the project site will be disposed of at a State permitted RCRA Subtitle D disposal facility in accordance with all applicable federal, state and local laws and regulations.]

3. [If reuse of all excavated soils is not practical or economical and disposal on the Government installation is not available, the Contractor shall place excess excavated soil material on a receiving property that has been approved by the Government. The action of placing excess soil on the receiving property shall have had the appropriate level of National Environmental Policy Act (NEPA) compliance activity performed and deemed acceptable. If the NEPA assessment has not evaluated placement of spoils off-site, then compliance with NEPA will need to be demonstrated through the preparation of a [Record of Environmental Consideration (REC) or a Supplemental Environmental Assessment (EA)]. NEPA documents shall be prepared using an inter-disciplinary approach which will ensure the integrated use of the natural and social sciences and the environmental design arts (section 102(2)(A) of the Act). The disciplines of the preparers shall be appropriate to the scope and issues identified in the scoping process. A written certification signed by the contractor shall be furnished to the Government indicating the soil was placed on the approved receiving site prior to payment for this effort. The certification shall identify dates and quantities of soils placed.]
4. [If borrow material is required and borrow is not available from the project site or the Government installation, the Contractor shall obtain borrow material from an off-site borrow source that has been approved by the Government. The action of acquiring borrow and transporting that material to the project shall have had the appropriate level of National Environmental Policy Act (NEPA) compliance activity performed and deemed acceptable. If the NEPA assessment has not evaluated the acquisition of borrow, then compliance with NEPA will need to be demonstrated through the preparation of a [Record of Environmental Consideration (REC) or a Supplemental Environmental Assessment (EA)].
5. NEPA documents shall be prepared using an inter-disciplinary approach which will ensure the integrated use of the natural and social sciences and the environmental design arts (section 102(2)(A) of the Act). The disciplines of the preparers shall be appropriate to the scope and issues identified in the scoping process.]

Note to Specification Preparer: Ensure the NEPA documentation addresses placement of spoils off-site and/or the acquisition of borrow from off-site if part of the design/project. If spoils removal or borrow acquisition is not part of the project, then this Specification can be adjusted accordingly or deleted. The US Army Corps of Engineers' Environmental Team member of the PDT will evaluate previously completed NEPA documentation and will help determine what level of NEPA assessment is required, if any.

If deemed necessary by the US Army Corps of Engineers Environmental Team member, an environmental site assessment (ESA) shall be performed on the receiving property and/or the borrow area by the Contractor. If an ESA is deemed necessary, the following shall be placed in the Specifications:

[The ESA shall meet the requirements of ASTM E1527-05 and was performed no earlier than two months prior to award of the contract and by a qualified environmental professional as defined by X2.1 of ASTM E1527-05. The findings of the ESA shall state that no indications of contamination were found on or adjacent to the property and that no additional investigation is warranted. A copy of the ESA report shall be furnished by the Contractor to the Government.]

- E. Design Analysis – the DA will need to provide a discussion on the former use of the property and the use of adjacent properties. There should also be a discussion on required National Environmental Policy Act (NEPA) documentation such as the Record of Environmental Consideration (REC), Categorical Exclusion (CATX) or Environmental Assessment (EA) or any environmental baseline document that will provide an indication of the former use of the property. Look for an Environmental Condition of Property (ECP) or ECP Checklist. The ECP is required by the Department of Army to document the environmental condition of the property in an ECP report.
- F. There should also be a discussion on the Environmental Assessment (EA) or Record of Environmental Consideration (REC). Findings of these studies such as any wetlands, threatened and endangered (T&E) species or State Historic Preservation Office (SHPO) sites should be highlighted in the DA. Actions required to mitigate or protect such items are to be included in the submittal plans and specifications.

- G. Radon – for new construction (regardless of the projected radon level) passive radon mitigation systems shall be incorporated into the original building design. The design shall include provisions to permit installation of exhaust fans, if necessary, after testing the building under occupied conditions. Criteria for radon mitigation in new construction is specified in EPA 625-R-96-016, (1994, Third Printing with Addenda) "Radon Prevention in Design and Construction of Schools and Other Large Buildings. This should be specified in 01 57 19 00 06 Temporary Environmental Controls and Permits.
- H. For facilities undergoing renovation, please ensure the specification 31 21 13 Radon Mitigation is included in the submittal.
- I. This guide specification covers the requirements for diagnostic testing for radon and designing and constructing radon mitigation systems in existing buildings and facilities, including constructing radon mitigation systems enclosures, when required.
- J. UXO/MEC - If the project is taking place on an existing military installation, the AE will ensure that there has been a "Munitions and Explosives of Concern (MEC) Probability Assessment" survey performed on the site in accordance with EM 385-1-97, III.B.01. The AE will request this document within 15 working days from their notice to proceed. If the AE does not receive a MEC Probability Assessment within 15 working days of their request, the Corps of Engineer's COR will be notified immediately. The MEC probability assessment is critical to perform the design. The installation is responsible for performing the MEC Probability Assessment. The assessment is used to determine the probability of encountering MEC and therefore, the level of MEC support the project requires. The Level of MEC support will be designated in the Design Analysis and all applicable plans and specifications (eg. No support, standby or on call support, or a MEC removal action within the foot print).
- K. The following language has been included in the Louisville District Temporary Environmental Controls and Permits specification 01 57 19 06 and must remain for all projects.
- Recognize. Recognize the hazard and do not touch, disturb, or move the item as it could detonate with movement or ground vibrations.
 - Retreat. Stop work, mark the general location, and have everyone retreat from the area.

- Report. Report the situation immediately to the appropriate local emergency response authority (i.e., call 911 or the equivalent on DoD installations), providing as much information as possible about the items encountered. USACE personnel should also notify their project chain of command, District Safety Office, and installation staff as appropriate.
- L. Hazardous Materials Survey– the contractor will perform a survey to satisfy the National Emissions Standard Hazardous Air Pollutants (NESHAPs) requirements to inspect buildings being renovated or demolished for Asbestos Containing Materials (ACMs) in accordance with 40 CFR 61. The survey shall meet the requirements specified in E2356 – 14 Standard Practice for Comprehensive Building Asbestos Surveys for Pre-Construction Surveys.

The survey will be performed by State accredited inspectors and will be a demolition style survey. The contractor will make every attempt possible to identify and quantify all asbestos located in the facility. The survey will be performed as per Asbestos Hazard Emergency Response Act (AHERA) requirements with regards to quantities of samples per homogeneous areas to be collected. All asbestos bulk samples will be sent to a National Voluntary Laboratory Asbestos Program (NVLAP) accredited laboratory for analysis using Polarized Light Microscopy (PLM) coupled with dispersion staining as outlined in Appendix A, Subpart F of EPA 40 CFR 763 to determine the type and percentage of asbestos present. All bulk samples shall be analyzed utilizing EPA Method 600/R-93/116 using Polarized Light Microscopy (PLM). All drywall and components making up the wall system will be sampled, analyzed and reported as a composite value. Any friable bulk sample analysis results with an asbestos content of greater than trace but less than 10% shall be reanalyzed utilizing EPA method 600/R-93/116 at 400 points. Non-friable Organically Bound materials (NOBs) shall be analyzed by Transmission Electron Microscopy (TEM).

The Asbestos survey report shall contain the following:

- A list of all suspect ACMs identified in the building
- Quantities and conditions of identified ACMs.
- Photographs and diagrams indicating the locations of identified ACMs.

- A copy of the laboratory analysis for each bulk sample collected. Include the date of each sample analysis and appropriate chain-of-custody sheets.
- Specific recommendations in accordance with Federal, State and local regulations.
- Copies of state licensing for each accredited inspector utilized along with expiration dates of their training accreditation and licensing

Additionally, the contractor will perform a walkthrough survey and provide an inventory of additional hazardous materials/universal waste encountered in the survey. The survey will not include an assessment or testing for lead in paint.

- M. Hazardous Material Reporting - designs for renovations/demolitions which require handling/disposal of hazardous materials prior to construction activities shall include the following items. Specifications shall include locations and quantities of Asbestos Containing Materials (ACMs) and construction plans shall provide the locations of identified ACMs on a separate Hazardous Material plan or on the Demolition plan.
- N. Installation Specific Requirements – several installations within the LRL boundaries have their own design guides and specifications.
1. Wright Patterson Air Force Base has its own set of specifications that are required to be utilized. These are obtained from the PE/A who receives them from Installation personnel. A Louisville District Temporary Environmental Controls and Permits specification is required to be used along with the Wright Patterson specifications.
 2. Fort Campbell utilizes UFGS guide specs that are edited to contain Fort Campbell specific requirements. The Fort Campbell specific items are contained in the Fort Campbell Technical Design Guide which is located <http://www.campbell.army.mil/Installation/Pages/Directorates.aspx>
 3. A Louisville District Temporary Environmental Controls and Permits specification is required to be used along with the Fort Campbell specifications.
- O. Common problems – the following are issues that often occur on renovation projects.
1. The AE will obtain an asbestos survey from the installation and include as part of the design submittal. The surveys performed for the installation are not adequate for renovation/demolition and do not satisfy the National Emissions Standard Hazardous Air Pollutants (NESHAPs) requirements for a thorough inspection.

Installation inspections are typically Operations and Maintenance (O&M) surveys that only assess building materials visible to the normal building inhabitants. The NESHAPS survey assesses both visible and hidden building materials. Efforts will include lifting ceiling tiles, accessing pipe chases and ceiling plenums, viewing inside cabinets, lifting carpets and rubberized floors, and checking beneath raised floor systems to access and sample suspect ACMs. Damage to friable suspect ACMs caused by sampling will require repair. The use of O&M surveys increases the likelihood of modifications.

2. Contractors often assume because an asbestos inspection is required upfront by regulation that a lead based paint survey is required as well. There is never a need for a lead survey prior to demolition or renovation unless the renovation is being performed in Target Housing or a Child Occupied Facility. Both of these scenarios involve children under the age of 6 and not typical LRL construction. Work in these facilities is governed by the EPA's Housing and Urban Development (HUD) guidelines. All work on LRL construction sites is governed by the OSHA Lead in Construction Standard 29 CFR 1926.62. LRL sites meeting the definition Target Housing or Child Occupied Facilities are governed by both regulations. Each LRL project which involves the disturbances of painted surfaces requires the use of 02 83 13 00 06 Lead in Construction.
- P. Hazardous Material Survey Validation – if a facility is inhabited or occupied during the initial survey the contractor will return to the facility to complete the initial survey upon departure of the tenants. The subsequent visit is to validate previous findings and to perform destructive testing that was not possible when the facility was inhabited. The contractor will provide the COR at least 2 weeks notification of the initial visit and the validation visit. No hazardous material surveys will be performed without government notification. The Final Hazardous Materials survey is required to be included no later than the 65% design submittal. In the event the construction contractor identifies additional hazardous materials not identified in the survey the contractor will notify the COR. The government will provide an accredited inspector to accompany the contractor's inspector during all sampling events.

Q. Independent Technical Review – all submittals should include a signed ITR certification for each discipline including environmental.

II. Purpose: the following is to summarize the environmental requirements for the Louisville District's military construction projects (using Design Build RFPs) in order to assist the AE in assembling a more complete package.

A. Edited versions of the following specifications are required on every Design Build project unless an exception is noted. The design is only required to contain edited 0100 specifications. The 0100 specifications must present information on environmental issues at the site such as the need for any hazardous material surveys or any special site hazards known at the time of the RFP development. The section 2 and beyond specification will be edited by the construction contractor or his subcontractor after award of the RFP. Once the contract is awarded, the construction contractor (DB contractor?) will edit the specifications and submit to USACE in the form of a compliance review (QA review) to ensure the contractor is following the process. It should be noted that specifications change often. The most current versions should be obtained from the following web site: <https://lrl.usace.afpims.mil/Missions/Engineering/Specs.aspx>

- 01 57 19 00 06 Temporary Environmental Controls and Permits
- 01 74 19 Construction Demolition Waste Management
- 01 05 26 Government Safety Requirements

B. If renovation or demolition of structures is to be performed versions of the following may also be required. These specifications will be edited by the construction contractor or his subcontractor after award of the RFP. The edited specifications will not be seen until the contractor submits his Quality Assurance (QA) package. The submittal is sometimes referred to as a Compliance Review.

- 02 82 16.00 20 Engineering Control of Asbestos Containing Materials
- 02 83 13 00 06 Lead in Construction
- 01 74 19 Construction Demolition Waste management
- 02 41 00 Demolition
- 02 84 16 Handling of Lighting Ballasts and Lamps Containing PCBs
- 02 4 33 Removal and Disposal of Polychlorinated Biphenyls (PCBs)
- 32 21 13 Radon Mitigation

C. Section 0800 Special Provisions has some requirements that are important enough to point out in this guidance document. The following items must appear in section 0800:

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Before final payment to the contractor, the contractor's project engineer/manager will sign and submit to the government, on the contracting firm's letterhead, a dated copy of the following statement:

I hereby certify that to the best of my knowledge no asbestos-containing material (ACM) was used as a building material during this project. I understand that the building owner presumes that all materials marked 'May contain mineral fibers' are asbestos unless I either:

- Have on file and have submitted to the Government the manufacturer's certification that the material does not contain asbestos, or
- Have supplied to the Government documentation to show that the material has been microscopically examined by an AIHA- or NVLAP-certified laboratory and the lab has determine that it that it does not contain asbestos."

D. It is important that Section 01 57 19 00 06 Temporary Environmental Controls and Permits appropriately address borrow material and excess soil. Therefore the following must be edited appropriately and included. If the language options below do not appear in the specification being used, it is not the correct specification.

MANAGEMENT OF BORROW MATERIAL AND EXCESS SOIL

Depending on the specifics of the project, the specification preparer shall choose one of the following or all four options:

1. [Under this contract, the intent is that all excavated soils are to be reused on-site to the greatest extent practicable and economically justified and the use of borrow from off-site sources shall be avoided to the greatest extent practicable and economically justified. (If available, the Government will identify on the contract drawings disposal areas and/or borrow areas outside the construction work limits

on the Government installation where excess soils may be taken. Any compaction or grading requirements will be noted on the drawings or in the specifications.)]

2. [If reuse of all excavated soils is not practical or economical and disposal on the Government installation is not available, then all soil removed from the project site will be disposed of at a State permitted RCRA Subtitle D disposal facility in accordance with all applicable federal, state and local laws and regulations.]
3. [If reuse of all excavated soils is not practical or economical and disposal on the Government installation is not available, the Contractor shall place excess excavated soil material on a receiving property that has been approved by the Government. The action of placing excess soil on the receiving property shall have had the appropriate level of National Environmental Policy Act (NEPA) compliance activity performed and deemed acceptable. If the NEPA assessment has not evaluated placement of spoils off-site, then compliance with NEPA will need to be demonstrated through the preparation of a [Record of Environmental Consideration (REC) or a Supplemental Environmental Assessment (EA)]. NEPA documents shall be prepared using an inter-disciplinary approach which will ensure the integrated use of the natural and social sciences and the environmental design arts (section 102(2)(A) of the Act). The disciplines of the preparers shall be appropriate to the scope and issues identified in the scoping process.
A written certification signed by the contractor shall be furnished to the Government indicating the soil was placed on the approved receiving site prior to payment for this effort. The certification shall identify dates and quantities of soils placed.]
4. [If borrow material is required and borrow is not available from the project site or the Government installation, the Contractor shall obtain borrow material from an off-site borrow source that has been approved by the Government. The action of acquiring borrow and transporting that material to the project shall have had the appropriate level of National Environmental Policy Act (NEPA) compliance activity performed and deemed acceptable. If the NEPA assessment has not evaluated the acquisition of borrow, then compliance with NEPA will need to be demonstrated through the preparation of a [Record of Environmental

Consideration (REC) or a Supplemental Environmental Assessment (EA)]. NEPA documents shall be prepared using an inter-disciplinary approach which will ensure the integrated use of the natural and social sciences and the environmental design arts (section 102(2)(A) of the Act). The disciplines of the preparers shall be appropriate to the scope and issues identified in the scoping process.]

Note to Specification Preparer: Ensure the NEPA documentation addresses placement of spoils off-site and/or the acquisition of borrow from off-site if part of the design/project. If spoils removal or borrow acquisition is not part of the project, then this Specification can be adjusted accordingly or deleted. The US Army Corps of Engineers' Environmental Team member of the PDT will evaluate previously completed NEPA documentation and will help determine what level of NEPA assessment is required, if any.

If deemed necessary by the U.S. Army Corps of Engineers Environmental Team member, an environmental site assessment (ESA) shall be performed on the receiving property and/or the borrow area by the Contractor. If an ESA is deemed necessary, the following shall be placed in the Specifications: [The ESA shall meet the requirements of ASTM E1527-05 and was performed no earlier than two months prior to award of the contract and by a qualified environmental professional as defined by X2.1 of ASTM E1527-05. The findings of the ESA shall state that no indications of contamination were found on or adjacent to the property and that no additional investigation is warranted. A copy of the ESA report shall be furnished by the Contractor to the Government.]

- E. Design Analysis – the DA will need to provide a discussion on the former use of the property and the use of adjacent properties. There should also be a discussion on required National Environmental Policy Act (NEPA) documentation such as the Record of Environmental Consideration (REC), Categorical Exclusion (CATX) or Environmental Assessment (EA) or any environmental baseline document that will provide an indication of the former use of the property. Look for an Environmental Condition of Property (ECP). The ECP is required by the Department of Army to document the environmental condition of the property in an ECP report.

1. There should also be a discussion on the Environmental Assessment (EA) or Record of Environmental Consideration (REC). Findings of these studies such as any wetlands, threatened and endangered (T&E) species or State Historic Preservation Office (SHPO) sites should be highlighted in the DA. Actions required to mitigate or protect such items are to be included in the submittal plans and specifications.
2. Radon – for new construction (regardless of the projected radon level) passive radon mitigation systems shall be incorporated into the original building design. The design shall include provisions to permit installation of exhaust fans, if necessary, after testing the building under occupied conditions. Criteria for radon mitigation in new construction is specified in EPA 625-R-96-016, (1994, Third Printing with Addenda) "Radon Prevention in Design and Construction of Schools and Other Large Buildings. This should be specified in 01 57 19 00 06 Temporary Environmental Controls and Permits.

For facilities undergoing renovation, please ensure the specification 31 21 13 Radon Mitigation is included in the submittal. This guide specification covers the requirements for diagnostic testing for radon and designing and constructing radon mitigation systems in existing buildings and facilities, including constructing radon mitigation systems enclosures, when required.

3. UXO/MEC - If the project is taking place on an existing military installation, the AE will ensure that there has been a "Munitions and Explosives of Concern (MEC) Probability Assessment" survey performed on the site in accordance with EM 385-1-97, III.B.01. The AE will request this document within 15 working days from their notice to proceed. If the AE does not receive a MEC Probability Assessment within 15 working days of their request, the Corps of Engineer's COR will be notified immediately. The MEC probability assessment is critical to perform the design. The installation is responsible for performing the MEC Probability Assessment. The assessment is used to determine the probability of encountering MEC and therefore, the level of MEC support the project requires. The Level of MEC support will be designated in the Design Analysis and all applicable plans and specifications (eg. No support, standby or on call support, or

a MEC removal action within the foot print). The following language has been included in the Louisville District Temporary Environmental Controls and Permits specification 01 57 19 06 and must remain for all projects.

- Recognize. Recognize the hazard and do not touch, disturb, or move the item as it could detonate with movement or ground vibrations.
- Retreat. Stop work, mark the general location, and have everyone retreat from the area.
- Report. Report the situation immediately to the appropriate local emergency response authority (i.e., call 911 or the equivalent on DoD installations), providing as much information as possible about the items encountered. USACE personnel should also notify their project chain of command, District Safety Office, and installation staff as appropriate.

F. Hazardous Materials Survey– the contractor will perform a survey to satisfy the National Emissions Standard Hazardous Air Pollutants (NESHAPs) requirements to inspect buildings being renovated or demolished for Asbestos Containing Materials (ACMs) in accordance with 40 CFR 61. The survey shall meet the requirements specified in E2356 – 14 Standard Practice for Comprehensive Building Asbestos Surveys for Pre-Construction Surveys.

The survey will be performed by State accredited inspectors and will be a demolition style survey. The contractor will make every attempt possible to identify and quantify all asbestos located in the facility. The survey will be performed as per Asbestos Hazard Emergency Response Act (AHERA) requirements with regards to quantities of samples per homogeneous areas to be collected. All asbestos bulk samples will be sent to a National Voluntary Laboratory Asbestos Program (NVLAP) accredited laboratory for analysis using Polarized Light Microscopy (PLM) coupled with dispersion staining as outlined in Appendix A, Subpart F of EPA 40 CFR 763 to determine the type and percentage of asbestos present. All bulk samples shall be analyzed utilizing EPA Method 600/R-93/116 using Polarized Light Microscopy (PLM). All drywall and components making up the wall system will be sampled, analyzed and reported as a composite value. Any friable bulk sample analysis results with an asbestos content of greater than trace but less than 10% shall be reanalyzed utilizing EPA method 600/R-93/116 at 400 points.

Non-friable Organically Bound materials (NOBs) shall be analyzed by Transmission Electron Microscopy (TEM).

The Asbestos survey report shall contain the following:

- A list of all suspect ACMs identified in the building.
- Quantities and conditions of identified ACMs.
- Photographs and diagrams indicating the locations of identified ACMs.
- A copy of the laboratory analysis for each bulk sample collected. Include the date of each sample analysis and appropriate chain-of-custody sheets.
- Specific recommendations in accordance with Federal, State and local regulations.
- Copies of state licensing for each accredited inspector utilized along with expiration dates of their training accreditation and licensing.

Additionally, the contractor will perform a walkthrough survey and provide an inventory of additional hazardous materials/universal waste encountered in the survey. The survey will not include an assessment or testing for lead in paint.

G. Hazardous Material Reporting - designs for renovations/demolitions which require handling/disposal of hazardous materials prior to construction activities shall include the following items. Specifications shall include locations and quantities of Asbestos Containing Materials (ACMs) and construction plans shall provide the locations of identified ACMs on a separate Hazardous Material plan or on the Demolition plan.

H. Installation/Customer Specific Requirements – several installations within the LRL boundaries have their own design guides and specifications.

1. Wright Patterson Air Force Base has its own set of specifications that are required to be utilized. These are obtained from the PE/A who receives them from Installation personnel. A Louisville District Temporary Environmental Controls and Permits specification 01 57 19 00 06 is required to be used along with the Wright Patterson specifications.
2. Fort Campbell utilizes UFGS guide specs that are edited to contain Fort Campbell specific requirements. The Fort Campbell specific items are contained in the Fort Campbell Technical Design Guide which is located <http://www.campbell.army.mil/Installation/Pages/Directorates.aspx>. A Louisville

District Temporary Environmental Controls and Permits specification is required to be used along with the Fort Campbell specifications.

3. The U.S. Army Reserves has its own statement of work section 01 02 00.00 48 which appears in Volume 1A of their specifications. Section 1.7.3 Environmental Considerations and Mitigation Requirements within the Statement of Work provides a template of the Environmental issues associated with most Reserves sites and must be tailored to the site. Attachments to the statement of work contain the specifications applicable to the site. These attachments can be edited but do not have to be. Typical Environmental specifications appear as the following attachments:

- Attachment N- UFGS 02 84 16 – Handling of Lighting Ballasts and Lamps containing PCBs and Mercury
- Attachment V- UFGS Section 02 84 33 – Removal and Disposal of Polychlorinated Biphenyls.
- Attachment W- 02 83 13.00 20 06 Lead in Construction.
- Attachment X- - 02 82 16.00 20 Engineering Control of Asbestos Containing Materials

The other Environmental specifications appear in Volume 1C and are the following:

- 01 35 26.00 00 06 Government Safety Requirements
- 01 57 19. 00 06 Temporary Environmental Controls and Permits
- 01 62 35 Recycled / Recovered Materials
- 01 74 19 Construction and Demolition Waste Management

The U.S. Army Reserves statement of work can be found within the LRL specifications and U.S. Army Reserve specifications located within the following web site - <http://www.lrl.usace.army.mil/Missions/Engineering/Specs.aspx>

4. Common problems – the following are issues that often occur on renovation projects.
 - a) The AE will obtain an asbestos survey from the installation and include as part of the design submittal. The surveys performed for the installation are not adequate for renovation/demolition and do not satisfy the National

Emissions Standard Hazardous Air Pollutants (NESHAPs) requirements for a thorough inspection. Installation inspections are typically Operations and Maintenance (O&M) surveys that only assess building materials visible to the normal building inhabitants. The NESHAPS survey assesses both visible and hidden building materials. Efforts will include lifting ceiling tiles, accessing pipe chases and ceiling plenums, viewing inside cabinets, lifting carpets and rubberized floors, and checking beneath raised floor systems to access and sample suspect ACMs. Damage to friable suspect ACMs caused by sampling will require repair.

- b) Contractors often assume because an asbestos inspection is required upfront by regulation that a lead based paint survey is required as well. There is never a need for a lead survey prior to demolition or renovation unless the renovation is being performed in Target Housing or a Child Occupied Facility. Both of these scenarios involve children under the age of 6 and not typical LRL construction. Work in these facilities is governed by the EPA's Housing and Urban Development (HUD) guidelines. All work on LRL construction sites is governed by the OSHA Lead in Construction Standard 29 CFR 1926.62. LRL sites meeting the definition of Target Housing or Child Occupied Facilities are governed by both regulations. Each LRL project which involves the disturbances of painted surfaces requires the use of 02 83 13 00 06 Lead in Construction.

5. Hazardous Material Survey Validation – if a facility is inhabited or occupied during the initial survey the contractor will return to the facility to complete the initial survey upon departure of the tenants. The subsequent visit is to validate previous findings and to perform destructive testing that was not possible when the facility was inhabited. The contractor will provide the COR at least 2 weeks notification of the initial visit and the validation visit. No hazardous material surveys will be performed without government notification. The Final Hazardous Materials survey is required to be included no later than the 65% design submittal.

In the event the construction contractor identifies additional hazardous materials not identified in the survey the contractor will notify the COR. The government will

provide an accredited inspector to accompany the contractor's inspector during all sampling events.

- I. Independent Technical Review – all submittals should include a signed ITR certification for each discipline including environmental.
- J. MATOC contracts - the purpose of this document is to summarize the environmental requirements for the Louisville District's military construction projects utilizing MATOC RFPs. In order to assist the contractor in assembling a more complete package the following guidance is provided. Edited versions of some or all, depending upon the type of project, (new construction, renovation or demolition) of the following specifications are required on MATOC Task Orders. It should be noted that specifications change often. The most current versions should be obtained from the following web site:
<https://lrl.usace.afpims.mil/Missions/Engineering/Specs.aspx> Division 1 specifications on MATOC Task Orders are usually not included in MATOC awards. These specifications and the division 0 specifications are part of the base contact award and do not change. For changes that have occurred after the MATOC base was awarded 0850 Special Provisions for MATOCs is utilized. Specification 0850 would need to capture the need for any hazardous material surveys or special site hazards/conditions unique to the site. Note: Wright Patterson Air Force Base has its own separate set of specifications generated by WPAFB. The specification package should be obtained through the USACE PE/A.

Note: Fort Campbell utilizes the Fort Campbell Technical Design Guide and should be included as a reference on every Fort Campbell project. The guide is located at:

<http://www.campbell.army.mil/Installation/Pages/Directorates.aspx>