

Environmental Checklist Approval Form

EC Number: INL-10-020

Project Title: BEA Research and Development Activities for the Center for Advanced Energy Studies (Overarching)

Instructions for the individuals listed below: Review the environmental checklist, and then send a Lotus Note to Alan Croft verifying that you agree that the information in the above-referenced document is true, accurate, and complete to the best of your knowledge. In addition, the note verifies that you have reviewed the work activities, project-specific instructions, and any conditions for this project (see below and in Sections E and F of the environmental checklist. Environmental Support and Services will keep this form and all notes as part of the official record.

Conditions (see Section E):

Project personnel would complete and approve a project-specific EC and work with the PEL to verify that environmental aspects and work activities fit under this overarching EC and comply with the following conditions:

1. Review and Approval Process

Submit EC: Project personnel must complete (Sections A-E) of a second tier EC; submit the EC to the PEL for review and technical input on environmental aspects, work activities, and requirements; and work with the PEL to incorporate applicable comments. Project personnel must sign the EC and return a copy of the signed EC to the PEL. The PEL would provide a paper or signed electronic copy of the signed EC to the NE-ID NEPA Compliance Officer and the Environmental Compliance NEPA Task Lead. Project personnel should keep a signed copy of the EC in the project files.

Notify CAES Manager: Project/Program managers must notify the CAES Manager before project or laboratory activities occur.

2. Project personnel, assisted by CAES personnel must determine if project activities involve or generate air emissions and if those emissions fall within limits established by CAES.

3. Project personnel must verify, in the 2nd tier ECs that any wastewater discharges meet the acceptance criteria of the CAES.

4. Project personnel must work with CAES and Environmental Support and Services to verify that R&D work using PCBs in concentrations greater than or equal to 50 ppm receives approval from EPA.

5. Line management and project management must consult with CAES personnel to verify that required plans or permits are complete and approved, as appropriate, before beginning project activities.

Project-specific Instructions (see Section F):

Project personnel would prepare a project-specific EC when proposing new or modifying current analytical or R&D projects and identify applicable work activities through CAES.

Project-Specific Requirements:

1. Air Emissions:

Radionuclides: Project and CAES personnel must evaluate each project involving unsealed radionuclides on a case-by-case basis. Project personnel must coordinate with CAES personnel to determine the allowable inventory or potential to emit for each project.

Other Toxic or Hazardous Air Pollutants: Project may involve the discharge of hazardous air pollutants regulated by the State of Idaho or EPA. Project personnel must coordinate with CAES personnel to determine if hazardous air pollutants would be discharged and to verify compliance with limits established by CAES.

2. Waste:

General: Project personnel must coordinate with WGS and the R&D PEL to pre-plan waste management activities. Project personnel must allocate adequate resources to manage the waste generated during the project and to cleanup after the project. WGS and the R&D PEL will assist in the development of WDDFs for each waste stream. A responsible party such as the project manager, principal investigator or facility manager would sign as the generator on each WDDF and would ensure project personnel take and maintain the waste generator and SAA/TAA training. The project manager, principal investigator or facility manager would establish procedures as necessary with waste management instructions to manage waste properly and would characterize all solid waste created by project activities before project personnel dispose of the waste.

Hazardous and Mixed Waste: Project personnel shall minimize the use of chemicals, which would generate hazardous waste and will use non-hazardous alternatives when possible. In addition, project personnel would accumulate hazardous waste in accordance with CAES requirements.

3. Biosafety Level:

Project activities covered by this EC may only involve work at Biosafety Levels 1 and 2.

4. Wastewater:

Wastewater discharges must meet the facilities and/or City of Idaho Falls sewer system wastewater acceptance criteria. Project personnel will work with CAES personnel to evaluate and approve any new wastewater discharges.

5. Hazardous and Radioactive Material:

CAES personnel shall control the handling and shipping of hazardous and radioactive material. In addition, CAES personnel will identify safe work practices and additional storage requirements for radioactive materials and waste. Project personnel will manage and use radioactive material in accordance with the CAES requirements and supported by CAES personnel

Environmental Support and Services: Complete the table below and keep all notes in the official record file.

ENVIRONMENTAL SUPPORT AND SERVICES WILL COMPLETE THE TABLE

Program / Project Managers	Approval Note	Date
G. H. Cole	√	4/13/10
W. A. Christenson	√	4/21/10
M. D. Sandvig	√	4/05/10

Facility Manager	Approval Note	Date
O. V. Hester	√	4/15/10

NEPA Compliance Officers	Approval Note	Date
R. M. Kauffman, DOE-ID	√	5/18/10
B. M. Angle, Contractor	√	5/19/10

See Attached Environmental Checklist

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DIRECTIONS: Responsible Managers, Project Environmental Lead, and Environmental Support personnel complete this form by following the instructions found at the beginning of each section and submit to Environmental Support & Services (environmental.checklist@inl.gov).

Enter a Valid Charge Number: 530133703

SECTION A. Descriptive Information: Provide project title, performing organization, project number, submittal date, and contact information.

Project Title: BEA Research and Development Activities for the Center for Advanced Energy Studies (Overarching)

Performing Organizations: Energy & Environment Science and Technology, Nuclear Science and Technology, National and Homeland Security Science & Technology Project No.: N/A Date: 3/12/2010

<u>Contact</u>	<u>Name</u>	<u>Telephone No.</u>	<u>E-mail Address</u>
DOE Project Technical Managers:	See Below		
Facility Manager/Nuclear Facility Manager:	Oren Hester	6-1260	Oren.Hester@inl.gov
R&D Operations Managers:	See Below		
Project/Technical Contact:			
Alternative Project/Technical Contact:			
Environmental Field Support Contact:	Robert Montgomery	6-9339	Robert.Montgomery@inl.gov
Additional Contacts:			
NEPA Contact	Alan Croft	6-8119	Alan.Croft@inl.gov

DOE Project Technical Managers:

- B. J. Bowser, 526-1910, BOWSERBJ@ID.DOE.GOV
- D. W. Macdonald, 526-6520, MACDONDW@ID.DOE.GOV

R&D Operations Managers for R&D are:

- Energy & Environment Science and Technology - G. H. Cole, 526-9471, George.Cole@inl.gov
- Nuclear Science and Technology – W. A. Christenson, 526-9289, Wayne.Christenson@inl.gov
- National and Homeland Security Science and Technology – M. D. Sandvig, 526-6140, Michael.Sandvig@inl.gov

Section B. Project Description: Provide a brief but thorough description of the project or action, including the type of action (for example, new activity or facility, construction, process or facility modification, maintenance, research and development, work for others), description of activities, work phases, location of work activity (include a map or diagram, if appropriate), purpose and need (what is the activity and why is it being performed), projected start and end dates and the approximate project costs.

Enter Keywords: CAES

Enter Project Description:

This environmental checklist (EC) covers the operational aspects described in the Environmental Assessment for the Proposed Consolidation and Expansion of Idaho National Laboratory Research and Development at a Science and Technology Campus, DOE/EA-1555, March 2007 and serves as an 'overarching environmental checklist' for routine analytical and R&D activities performed by BEA personnel at the Center for Advanced Energy Studies (CAES). It is expected that this EC, and subsequent 2nd tier ECs, would address ongoing and future work related to nuclear energy and physics, basic and applied chemistry, biology, materials science, prototype development, and physical measurements including, but not limited to, radiological work. The work may also include National and Homeland Security program-sponsored research, development, and demonstration facilities.

The CAES is a non-DOE Facility operated by the Idaho University system. Work performed by BEA personnel is subject to BEA work control in accordance with the requirements of Form 420.15, *Non-DOE ISMS Infrastructure Worksheet*. The output of this process is to "ensure that the worker and INL management are confident that the safety program at CAES is comparable to INL standards." In addition, the Environmental Checklist process applies only to BEA personnel working under DOE or other government funding. Compliance with the spectrum of environmental requirements, such as solid waste, hazardous waste, air emissions, waste water, and radioactive material is the responsibility of CAES management

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and the University System. BEA research personnel are responsible to consult with and work with CAES personnel to ensure compliance with CAES environmental requirements.

This EC covers moving activities not now located at CAES as well as initiating new work, including non-structural modifications to laboratories. Non-structural modifications to CAES such as the installation of DOE-funded equipment is covered under this EC. Installation of equipment purchased through the University system is not covered by this EC.

The number of labs in use at CAES and the activities within the labs sponsored by BEA may change over time. BEA project personnel and the Program Environmental Lead (PEL) must evaluate each change against this EC. In addition, the PEL must evaluate each project approved under this EC before project personnel initiate work. Demonstration of that review shall be a separate "secondary" EC, reviewed by the PEL and signed by the researcher (See Section E, #1).

Biological Hazards: BEA project personnel must work with CAES personnel to evaluate work involving biological hazards and verify the work falls within the limits established by CAES. In addition, project activities covered under this EC may only involve work at Biosafety Levels 1 and 2. Work at Biosafety Levels 3 or 4 require a separate EC (See Section F, #3).

Chemical Use and Storage: BEA project personnel will purchase, store, and use chemicals through the CAES purchasing system. Chemicals purchased by BEA shall not be delivered or transferred to CAES, nor will chemicals purchased by CAES be transferred to BEA facilities.

Discharge to Wastewater Systems or Groundwater: Laboratory-related discharge of wastewater to any drain system must meet the waste acceptance criteria of the receiving unit. BEA project personnel must work with CAES personnel to verify that project discharges meet the waste acceptance criteria (See Section F, #4 and Section E, #3). This EC does not authorize direct discharge to groundwater, surface water, or the ground surface.

Hazardous/Radioactive Material or Waste Handling and Transportation: CAES shall control the handling and shipping of hazardous and radioactive material. In addition, BEA project personnel will work with CAES personnel to identify safe work practices and additional storage requirements for radioactive materials and waste (See Section F, #5).

PCB Contamination: Some laboratory activities may involve receipt, management and analysis of PCB in concentrations >50 ppm. Managing, decontaminating, and disposing of PCB material will be in accordance with CAES requirements. In addition, studies on alternative methods to analyze, detect, or destroy PCBs may be performed. BEA project personnel must work with CAES personnel to obtain approvals from EPA before working with PCB (See Section E, #4).

Radioactive Materials Use and Storage: BEA project personnel will manage and use radioactive material in accordance with the CAES requirements and supported by CAES personnel (See Section F, #5).

Ongoing and future work would result in emissions to the atmosphere of both chemicals and radionuclides, discharge to waste water systems, generation of hazardous, mixed, radioactive, and industrial wastes; analysis of samples with PCBs and/or R&D regarding PCB analysis or destruction technologies (see Section C for specific descriptions). Samples for analysis or R&D work may be received from outside the INL or originate within the INL. Laboratory activities may result in excess samples or sample residues that BEA project personnel must return to the generator or to CAES personnel to manage and dispose. BEA project activities may retain wastewater from laboratory operations for characterization and management or may be disposed to laboratory drain systems in accordance with the appropriate sewage disposal regulations.

Requirements associated with work activities found in LWP-8000 and in Section D of this EC are not applicable to work at CAES because BEA has neither control of, nor authority for environmental compliance issues. Examples of these work activities include waste characterization and management, chemical and/or radioactive air emissions, and discharges to the Idaho Falls sewer system. Additionally, BEA requirements on the management of lead, management of injection wells, and control of discharges to surface/storm water do not apply to activities at CAES. All such issues are under the direct control of the Idaho University System.

Second-tier ECs to be covered under this overarching EC shall not identify Work Activities as described in LWP-8000.



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SECTION C. Environmental Aspects / Potential Sources of Impact: Check the applicable box for the following environmental aspects by reviewing the applicability statements; provide a detailed explanation for any aspect checked 'Yes'. Ask yourself, "How can this activity affect the environment".

Environmental Aspects Table			
Environmental Aspect	Applicability Statement	Yes	No
Air Emissions	Air emissions applies to operations or activities that have the potential to generate air pollutants including but not limited to radionuclides, chemical and combustion emissions, fugitive dust, and ozone-depleting substances. Includes activities that may break up, dislodge, disturb or block access to regulated asbestos-containing material (RACM), handle asbestos-containing material, manage asbestos waste, or conduct demolition of load bearing structural members, (including trailers).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Discharging to Surface-, Storm-, or Ground Water	Surface water or storm water contamination applies to activities that have the potential to contaminate Waters of the U.S., wetlands, ground water, or storm water that could reach Waters of the U.S.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Disturbing Cultural / Biological Resources	Cultural resource disturbance applies to activities that have the potential to impact cultural resources, such as disturbing soils by grading, excavating, sampling, off-road vehicle use, or removing vegetation, as well as to personnel working in areas where cultural resources are located. It also applies to modification or demolition of historical buildings or structures, or activities that could result in loss or damage to these resources. Examples of cultural resources include buildings, structures or objects over 50 years old or those identified as historic due to special significance, archaeological resources, historic home sites, trails, and canals, and places or items of significance to Native Americans and/or others. In addition, activities that have potential to interact, disturb or affect wildlife or their habitat (e.g., soil disturbance) or activities involving revegetation or weed control.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Generating and Managing Waste	Regulated, hazardous or radioactive material and waste packaging and transportation applies to activities that generate, handle, store, transport, or treat hazardous, radioactive, mixed, industrial waste, or nanoparticle waste.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Releasing Contaminants	Releasing contaminants applies to activities that may release potentially hazardous contaminants into air, water, soil, or other non-contaminated or previously contaminated locations. These activities may include, but are not limited to, the use of industrial and laboratory chemicals; the use of radionuclides; hazardous, radioactive, and mixed waste treatment and decontamination operations; and contaminated soils disturbance. This aspect also applies to asbestos containing material (ACM) remediation; repair, replacement, and/or disposal of contaminated tanks and associated piping; and the handling and disposal of PCB-contaminated equipment and waste.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Using, Reusing, and Conserving Natural Resources	Use, reuse and recycling of resources applies to activities that use resources such as water, energy, fuels, and minerals, borrow material, wood or paper products, and other materials derived from natural resources.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

For each environmental aspect checked 'Yes', provide specific information such as types and amounts of chemicals, waste, effluent, or emissions; size of modification, soil disturbance; or type of tank, equipment, or process and pollution prevention measures for each item checked. Briefly discuss the potential environmental impacts that could occur from project activities.

Describe Environmental Aspects:

Although the INL will collaborate with the University system and CAES personnel, in activities conducted at the CAES, the CAES is owned and operated exclusively by the University. While the Environmental Aspects described below would occur as a result of INL activities, the University would have direct responsibility for meeting all Federal, state, and local environmental requirements. As stated previously, it is the responsibility of BEA Project Personnel to work with CAES personnel to verify compliance. In addition, to help verify compliance, several "Project Conditions" and "Project-specific Instructions" are included in this EC (see Sections E and F, below).

Air Emissions: Activities at CAES may result in chemical and/or radiological emissions from vents, stacks, and hoods. Each activity must meet state and Federal air emission regulations. BEA project personnel will work with CAES personnel to evaluate each new activity with the potential to emit air toxics, criteria pollutants, or radionuclides, before beginning work.

Generating and Managing Waste: Laboratory activities are expected to generate both hazardous and mixed waste. Laboratory activities will also generate industrial waste and low level radioactive waste. All waste will be managed by, and subject to the requirements of the CAES. Some laboratory activities may involve receipt, management, and analysis or PCBs in concentrations >= 50 ppm. Managing, decontamination, and disposal of PCB material will be in accordance with CAES requirements. In addition, studies on alternative methods to analyze, detect, or destroy PCBs may be performed.

Releasing Contaminants: It is expected that contaminants will be released to the atmosphere and wastewater streams. All releases will be subject to limits established by CAES as well as Federal, state and local regulatory agencies. This EC does not authorize direct discharge to ground water, surface water, or to the ground surface.

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BEA project personnel will work with CAES personnel to evaluate work involving biological hazards and verify that work falls within the limits established by CAES.

BEA project personnel will purchase, store, and use chemicals through the CAES purchasing system. Chemicals purchased by BEA shall not be delivered or transferred to CAES, nor will chemicals purchased by CAES be transferred to BEA facilities.

Using, Reusing, and Conserving Natural Resources: R&D activities will likely generate materials that can be recycled including, but not limited to, batteries, scrap metal, and chemicals. BEA project personnel will work with CAES personnel to recycle, reuse, and recover materials wherever possible.

SECTION D. Work Activities and Environmental Checklist Submittal Determination: Select all of the applicable work activities below. Section numbers refer to section in LWP-8000 Environmental Instructions for Facilities, Processes, Materials, and Equipment. The numbers (e.g., 4.35) refer to LWP-8000 Section numbers and when **highlighted** or **shaded** require submittal of the EC to Environmental Support and Services (ES&S) using the instructions in the direction at the beginning of this form.

Required to submit the EC to Environmental Compliance (INL) (submit to environmental.checklist@inl.gov)

Not required to submit EC (see instructions).

Note: Requirements associated with work activities found in LWP-8000 and in Section D of this EC are not applicable to work at CAES because BEA has neither control of, nor authority for environmental compliance issues (with the exception as described below). Examples of these LWP-8000 work activities include waste characterization and management, chemical and/or radioactive air emissions, and discharges to the Idaho Falls sewer system. Additionally, BEA requirements on the management of lead, management of injection wells, and control of discharges to surface/storm water do not apply to activities at the CAES. All such issues are under the direct control of the Idaho University System. Second-tier EC's to be covered under this overarching EC shall not identify Work Activities as described in LWP-8000.

Exception: The work activity (4.50) titled: "Conducting new or modifying research and development (R&D) activities, including indoor bench-scale & small-scale R&D activities, & small-scale pilot projects or routine administrative activities or work for other activities" applies to cover the operational responsibility for the work BEA project personnel perform at CAES.

Work Activity Table		
Will the work activity involve (check all appropriate boxes):		LWP-8000 Section #
Boilers, diesel generators, painting booths, vehicle fleet, gasoline pumps, non road power take offs, laboratory hoods, containments, glove boxes, treatment of spent nuclear fuel (SNF), nuclear reactor, fuel fabrication, open burning, generate fugitive dust, and other activities that could emit air pollutants?		
<input type="checkbox"/>	Causing, or having the potential to cause, process/equipment to approach or exceed permitted or regulatory limits for air emissions	4.33
<input type="checkbox"/>	Conducting open burning	4.35
<input type="checkbox"/>	Constructing, reconstructing, or modifying stationary air emission sources, including internal combustion engines	4.29
<input type="checkbox"/>	Distributing, excessing or disposing of appliances containing refrigerant	4.45
<input type="checkbox"/>	Maintaining, servicing, or repairing stationary HVAC equipment	4.43
<input type="checkbox"/>	Maintaining, testing or disposing of halon-containing equipment & halon	4.38
<input type="checkbox"/>	Constructing/Operating/repairing motor vehicle gasoline station pumps	4.37
<input type="checkbox"/>	Maintaining/Serviceing/ repairing motor vehicle air conditioners	4.44
<input type="checkbox"/>	Manufacturing wood furniture and wood furniture components	4.21
<input type="checkbox"/>	Operating and maintaining stationary air emission sources, including internal combustion engines	4.31
<input type="checkbox"/>	Operating commercial and industrial solid waste incineration units	4.113
<input type="checkbox"/>	Operating stationary air emission sources that emit radionuclides	4.32
<input type="checkbox"/>	Performing activities with the potential for fugitive dust or fugitive emissions	4.34
<input type="checkbox"/>	Purchasing diesel fuel	4.36
<input type="checkbox"/>	Purchasing equipment containing ozone-depleting substances (ODS), such as refrigerants or halon, or recovery/recycling equipment with ODS	4.42
<input type="checkbox"/>	Purchasing, relocating operating, modifying, or maintaining portable air emission sources, including nonroad internal combustion engines, for use at the Site or Idaho Falls Facilities	4.28
<input type="checkbox"/>	Receiving off-site waste containing one or more of the hazardous air pollutants	4.107
<input type="checkbox"/>	Starting up, shutting down, or performing scheduled maintenance on stationary air emissions sources	4.30
Pesticides, fertilizers, spills or releases, reactivating buildings or placing buildings in standby, disposing excess materials, perform site remediation, chemical use or storage, shipping, managing, or removing lead, or other activities that could release contaminants?		
<input type="checkbox"/>	Managing and dispositioning excess property and materials	4.80
<input type="checkbox"/>	Acquiring, using, storing and dispositioning chemical	4.5
<input type="checkbox"/>	Applying & storing pesticides	4.46

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<input type="checkbox"/>	Procuring pesticides	4.111
<input type="checkbox"/>	Applying fertilizers	4.47
	Causing, or having the potential to cause, process/equipment to approach or exceed permitted or regulatory limits for...	
<input type="checkbox"/>	air emissions	4.33
<input type="checkbox"/>	drinking water	4.13
<input type="checkbox"/>	wastewater discharges	4.85
	Spills and releases	
<input type="checkbox"/>	Reporting & cleaning up spills & releases	4.58
<input type="checkbox"/>	Cleaning Up spills and releases of PCBs	4.59
<input type="checkbox"/>	Releases, Leaks, Spills or Unusual Operating Condition from an Underground Storage Tank Regulated under IDAPA 58.01.07 (40 CFR 280)	4.68
	Managing, removing, or shipping lead	
<input type="checkbox"/>	Managing elemental lead	4.40
<input type="checkbox"/>	Removing lead from service, from a structure, or classifying newly discovered lead	4.39
<input type="checkbox"/>	Shipping product lead off-site for direct reuse at another facility	4.41
<input type="checkbox"/>	Preparing buildings or facilities being transferred to surplus or placed into standby (inactive) status	4.25
<input type="checkbox"/>	Reactivating buildings or facilities from standby (inactive) status	4.26
	Siting studies, transacting real property, site remediation, vehicles fleet, paved and unpaved road (or two-track roads), diversion dams, stream channels, disturbing soils, gravel/borrow pits, wildland fires, field work, or constructing, modifying, maintaining, operating, or DD&D facilities, structures, equipment, or processes?	
<input type="checkbox"/>	Constructing/Modifying facilities, structures, equipment, or processes – General (see LWP-8000 for definition of modifying vs. maintaining)	4.15
<input type="checkbox"/>	DD&D or closing facilities (including trailers), structures, equipment, or processes – General	4.27
<input type="checkbox"/>	Maintaining/Repairing facilities, structures, equipment or processes – General	4.19
<input type="checkbox"/>	Modifying buildings or structures constructed on the INL before 1975	4.116
<input type="checkbox"/>	Operating facilities, equipment, or processes – General	4.17
<input type="checkbox"/>	Performing site remediation activities	4.114
<input type="checkbox"/>	Performing siting studies for new buildings or structures	4.14
<input type="checkbox"/>	Removing vegetation, disturbing soil, sampling, using vehicles off-road, or excavating in field areas outside <i>site area boundaries</i> (see def.) or more than 50 ft from a building or improved grounds at unfenced facilities, or any soil disturbance within the Sagebrush Steppe Reserve (LWP-8000, Appendix E), inside the CITRC boundary or between TAN and SMC; field work (outside site area boundaries); applying pesticide; working within 150 feet of caves; or disturbing bird nests containing eggs or young.	4.117
<input type="checkbox"/>	Transacting Real Property	4.49
	Potable (or drinking) water including controlling cross-connections and altering drinking water systems or potable water, production, monitoring, observation, or injection wells?	
<input type="checkbox"/>	Abandoning injection wells	4.97
<input type="checkbox"/>	Abandoning potable water, production, monitoring, & observation wells	4.93
<input type="checkbox"/>	Causing, or having the potential to cause, process/equipment to approach or exceed permitted or regulatory limits for drinking water	4.13
	Constructing/Modifying drinking water systems & controlling cross-connections...	
<input type="checkbox"/>	At the site	4.9
<input type="checkbox"/>	In town (Information Operations & Research Center and the INL Research Center)	4.108
<input type="checkbox"/>	Constructing/Modifying injection wells	4.94
<input type="checkbox"/>	Constructing/Modifying potable water, production, monitoring, & observation wells	4.91
	Maintaining, Repairing, or Altering Drinking Water Systems and Controlling Cross Connections...	
<input type="checkbox"/>	At the site	4.12
<input type="checkbox"/>	In town (Information Operations & Research Center and the INL Research Center)	4.109
<input type="checkbox"/>	Operating and discharging to shallow injection wells not requiring permit	4.96
<input type="checkbox"/>	Operating and sampling drinking water systems & controlling cross-connections at the site	4.10
<input type="checkbox"/>	Operating potable water, production, monitoring, and observation wells	4.92
<input type="checkbox"/>	Operating, discharging to & monitoring permitted injection wells	4.95
	Using Drinking water systems & controlling cross-connections...	
<input type="checkbox"/>	At the site	4.11
<input type="checkbox"/>	In Town (INL Information Operations & Research Center & the INL Research Center)	4.110
	Research & development (R&D) or training activities or work for other activities that involve working in a laboratory or in the field, including small-scale pilot and demonstration projects and explosive testing?	
<input checked="" type="checkbox"/>	Conducting new or modifying research & development (R&D) activities, including indoor bench-scale & small-scale R&D activities, & small-scale pilot projects or routine administrative activities or work for other activities.	4.50
<input type="checkbox"/>	Conducting training exercises and simulations related to protective force & emergency response training, fire fighter & rescue training, and spill cleanup training on the INL (includes, but not limited to indoor and outdoor training at firing ranges and elsewhere on site)	4.115

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<input type="checkbox"/>	Office work and routine administrative activities and work for other activities that do not involve working in a laboratory or in the field	4.51
<input type="checkbox"/>	Managing and disposing of unbound engineered nanoparticle waste	4.119
Preparing, collecting, packaging, storing, transferring, or disposing samples or obtaining laboratory services?		
<input type="checkbox"/>	Disposing of samples	4.105
<input type="checkbox"/>	Monitoring wastewater discharges to the city of Idaho Falls	4.84
<input type="checkbox"/>	Packaging and temporarily storing samples	4.102
<input type="checkbox"/>	Preparing to collect and collecting CERCLA or DD&D samples	4.98
<input type="checkbox"/>	Preparing to collect and collecting samples (Non-CERCLA or Non-DD&D)	4.100
<input type="checkbox"/>	Storing & maintaining samples	4.104
<input type="checkbox"/>	Transferring samples to a laboratory	4.103
Aboveground or underground storage tanks or containers or tanks that store oil		
<input type="checkbox"/>	Constructing or modifying aboveground storage tanks (ASTs) and underground storage tanks (USTs) (also check 4.65 if activity involves an UST)	4.60
<input type="checkbox"/>	Operating an aboveground storage tank or an underground storage tank (also check 4.66 if activity involves an UST)	4.61
<input type="checkbox"/>	Repairing aboveground storage tank or underground storage tank not regulated under 40 CFR 280 (also check 4.19 if the activity involves an AST or UST; and 4.67 if activity involves only an UST)	4.62
<input type="checkbox"/>	Constructing or modifying underground storage tank systems regulated under IDAPA 58.01.07 (40 CFR 280) (also check 4.60)	4.65
<input type="checkbox"/>	Constructing/Modifying facilities that store oil in containers or tanks	4.7
<input type="checkbox"/>	Discontinuing use of, closing, relocating, or removing an aboveground storage tank or an underground storage tank (also check 4.71 if activity involves an UST)	4.64
<input type="checkbox"/>	Operating an Underground Storage Tank Regulated under IDAPA 58.01.07 (40 CFR 280) (Also check 4.61)	4.66
<input type="checkbox"/>	Operating stationary, portable or mobile oil tanks & oil container storage facilities	4.8
<input type="checkbox"/>	Permanently Discontinuing Use of, Change-in-Service of, Closing, Relocating or Removing an Underground Storage Tank Regulated under IDAPA 58.01.07 (40 CFR 280) (Also check 4.64)	4.71
<input type="checkbox"/>	Repairing an Underground Storage Tank Regulated under IDAPA 58.01.07 (40 CFR 280) (Also check 4.19; and 4.62)	4.67
<input type="checkbox"/>	Releases, Leaks, Spills or Unusual Operating Condition from an Underground Storage Tank Regulated under IDAPA 58.01.07 (40 CFR 280)	4.68
Preparing to generate or generate a waste (hazardous, industrial, mixed, and radioactive)?		
<input type="checkbox"/>	Generator Treatment of Hazardous Waste	4.118
<input type="checkbox"/>	Constructing or modifying facilities, equipment or processes at permitted or interim status RCRA facilities	4.73
<input type="checkbox"/>	Decontaminating equipment containing or contaminated with PCBs	4.24
<input type="checkbox"/>	Discontinuing use of, or closing facilities, equipment or processes at RCRA interim status or permitted facilities	4.75
<input type="checkbox"/>	Disposing of asbestos-containing material	4.112
<input type="checkbox"/>	Disturbing Asbestos, Removing Asbestos-Containing Material or Conducting a Demolition Activity	4.3
<input type="checkbox"/>	Generating waste	4.79
<input type="checkbox"/>	Maintaining equipment containing or contaminated with PCBs	4.23
<input type="checkbox"/>	Procuring off-site waste management and recycling services	4.77
<input type="checkbox"/>	Removing brake pads	4.22
Septic or sewage systems or discharging wastewater or effluents?		
<input type="checkbox"/>	Abandoning or Closing Septic Tanks or Systems	4.56
<input type="checkbox"/>	Causing, or having the potential to cause, process/equipment to approach or exceed permitted or regulatory limits for wastewater discharges	4.85
<input type="checkbox"/>	Constructing/Modifying Septic Tanks or Systems	4.52
<input type="checkbox"/>	Constructing/Modifying Sewage and Other Wastewater Systems	4.81
Discharging New Wastewaters or Changing Discharges to...		
<input type="checkbox"/>	The City of Idaho Falls Sewer System	4.82
<input type="checkbox"/>	The INL Site	4.86
<input type="checkbox"/>	Discharging to Septic Tanks or Systems	4.53
Discharging Wastewaters or Changing Discharges to ...		
<input type="checkbox"/>	The City of Idaho Falls Sewer System	4.83
<input type="checkbox"/>	The INL Site	4.87
<input type="checkbox"/>	Maintaining/Repairing Septic Tanks or Septic Systems	4.54
<input type="checkbox"/>	Operating Wastewater Systems, including Reclamation or Reuse Facilities	4.89
<input type="checkbox"/>	Pumping Septic Tanks or Septic Systems	4.55



Go to Sections E ' Conditions'

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Note: Environmental Organization personnel generally complete Sections E, F, & G unless the EC Process does not require submittal of the EC to the Environmental Organization, then project personnel can complete Sections E, F, & G and sign the form; if there are no 'conditions' or 'project-specific instructions', put 'None'. Section G should always be complete along with the signature block. Contact your Project/Program Environmental Lead (PEL) if you have questions about these sections.

SECTION E. Conditions: (If Yes, then list and describe below.) List and describe any 'conditions' or actions that must be complete before project activities can begin (such as cultural resource or biological resource clearances, air permitting applicability determinations, permits to construct, waste permits, and so forth. Be specific about the condition and action and who has the action.	Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Enter Conditions:

BEA project personnel would complete and approve a project-specific EC and work with the PEL to verify that environmental aspects and work activities fit under this overarching EC and comply with the following conditions:

1. Review and Approval Process

Submit EC: Project personnel must complete (Sections A-E) of a second tier EC; submit the EC to the PEL for review and technical input on environmental aspects and requirements; and work with the PEL to incorporate applicable comments. Project personnel must sign the EC and return a copy of the signed EC to the PEL. The PEL would provide a paper or signed electronic copy of the signed EC to the NE-ID NEPA Compliance Officer and the Environmental Compliance NEPA Task Lead. Project personnel should keep a signed copy of the EC in the project files.

Notify CAES Manager: Project/Program managers must notify the CAES Manager before project or laboratory activities occur.

2. Project personnel will work with CAES personnel to determine if project activities involve or generate air emissions and if those emissions fall within limits established by CAES.

3. Project personnel must verify, in the 2nd tier ECs, that wastewater discharges (if any) meet the acceptance criteria of the CAES.

4. Project personnel must work with CAES and Environmental Support and Services to verify that R&D work using PCBs in concentrations greater than or equal to 50 ppm receives approval from EPA.

5. Line management and project management must consult with CAES personnel to verify that required plans or permits are complete and approved, as appropriate, before beginning project activities.

SECTION F. Project-Specific Instructions: (if Yes, then list and describe below) List and describe any project-specific instruction that must be completed during or at the end of the project (such as notifications, reports, records, and so forth). Generally, project-specific instructions are those items that environmental personnel or project personnel would like to highlight or that do not appear in LWP-8000.	Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Enter Project-Specific Instructions:

BEA project personnel must prepare a project-specific EC when proposing new work or modifying current analytical or R&D projects, and identify applicable work activities through CAES.

Project-Specific Requirements:

1. Air Emissions:

Radionuclides: Project personnel must work with CAES personnel to evaluate each project involving unsealed radionuclides on a case-by-case basis. Project personnel must coordinate with CAES personnel to determine the allowable inventory or potential to emit for each project.

Other Toxic or Hazardous Air Pollutants: BEA projects may involve the discharge of hazardous air pollutants regulated by the State of Idaho or EPA. Project personnel must coordinate with CAES personnel to determine if hazardous air pollutants would be discharged and to verify compliance with limits established by CAES.

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2. Hazardous and Mixed Waste:

Project personnel shall minimize the use of chemicals, which would generate hazardous waste and will use non-hazardous alternatives when possible. In addition, project personnel would accumulate hazardous waste in accordance with CAES requirements.

3. Biosafety Level:

BEA project activities covered by this EC may only involve work at Biosafety Levels 1 and 2.

4. Wastewater:

Wastewater discharges from BEA projects must meet the facilities and/or City of Idaho Falls sewer system wastewater acceptance criteria. Project personnel will work with CAES personnel to evaluate and approve any new wastewater discharges.

5. Hazardous and Radioactive Material:

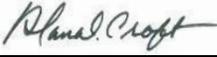
CAES personnel control the handling and shipping of hazardous and radioactive material. In addition, CAES personnel identify safe work practices and additional storage requirements for radioactive materials and waste. BEA project personnel will manage and use radioactive material in accordance with CAES requirements and be supported by CAES personnel.

<p>SECTION G. Determine the Level of Environmental Review (or Documentation) and Reference(s): Identify the level of environmental review (or documentation) by checking the appropriate box or boxes. That is, check Categorical Exclusion number (CX), Environmental Assessment (EA), Environmental Impact Statement (EIS), and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Previously Approved NEPA Document, or Routine Maintenance or Operational activity. Provide the appropriate reference for the box or boxes checked. For instance, the specific categorical exclusion from 10 CFR 1021, or the document numbers for referenced environmental assessments, environmental impact statements, CERCLA record of decisions, or a previously approved EC number.</p> <p><input type="checkbox"/> CX <input type="checkbox"/> EA <input type="checkbox"/> EIS <input type="checkbox"/> CERCLA <input checked="" type="checkbox"/> Previously Approved EC, EA, or EIS <input checked="" type="checkbox"/> Overarching EC <input type="checkbox"/> Routine Maintenance & Operational Activities</p>

Note: For projects checked above as "CX" (Categorical Exclusion) the proposed action must not: 1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, including requirements of DOE orders; 2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities; 3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; 4) adversely affect environmentally sensitive resources. In addition, no extraordinary circumstances related to the proposal exist which would affect the significance of the action, and the action is not "connected" nor "related" (40 CFR 1508.25(a)(1) and (2), respectively) to other actions with potentially or cumulatively significant impacts. Note: The above paragraph does not apply to EA, EIS, or CERCLA related activities.

References: Environmental Assessment for the Proposed Consolidation and Expansion of Idaho National Laboratory Research and Development at a Science and Technology Campus, DOE/EA-1555, March 2007.

Justification: This environmental checklist covers the research activities described in the Environmental Assessment for the Proposed Consolidation and Expansion of Idaho National Laboratory Research and Development at a Science and Technology Campus, DOE/EA-1555, March 2007, and serves as an 'overarching environmental checklist' for routine analytical and R&D activities performed by BEA personnel at the Center for Advanced Energy Studies (CAES). It is expected that this EC, and subsequent 2nd tier ECs, would address ongoing and future work related to nuclear energy, physics, basic and applied, chemistry, biology, materials science, prototype development, and physical measurements including, but not limited to, radiological work. The work may also include National and Homeland Security-sponsored research, development, and demonstration activities.

<p>SIGNATURE BLOCK. Signature indicates that this form is accurate, complete and establishes an obligation to follow environmental requirements herein. The signature block is for Environmental Organization personnel, <u>unless otherwise directed</u> by Environmental Staff.</p>		
<p>Alan D. Croft</p>		<p>4/13/10</p>
<p>Print/Type Name</p>	<p>Signature</p>	<p>Date</p>