

Capital Budget Request

Renovate and Expand Hahn Hall	
Overview	
Agency	Virginia Polytechnic Institute and State University (208)
Project Code	none
Project Type	New Construction
Biennium	2020-2022
Budget Round	Initial Bill
Request Type	New Project
Project Location	Roanoke Area
Facility/Campus	Blacksburg Main Campus
Source of Request	Agency Request
Infrastructure Element	Laboratory / Classroom
Contains O & M costs? Yes	
Contains significant technology costs? No	
Contains significant energy costs? No	
Possible that project will be used by other than a state or local governmental entity, or for research under sponsored programs (higher education)? No	
Agency Narrative	
<p>Agency Description</p> <p>Executive Summary:</p> <p>This project request combines two distinct projects for the College of Science. The first is for a renovation of Hahn Hall South for the Department of Chemistry to update research laboratory environments, provide additional functional space, and create additional opportunities for College of Science research and experiential learning. The second is for a new Physics Expansion building for the Department of Physics to accommodate enrollment growth, learning environment improvements, the latest research laboratory environments, and opportunities for shared resources throughout the university. Due to physical proximity, phasing strategies, and programmatic opportunities, these projects are bundled together but are described separately for clarity.</p> <p>Project Description:</p> <p>Hahn Hall South</p> <p>At approximately 71,100 gross square feet, Hahn Hall South is a research laboratory workhorse constructed in 1988. Its physical connection to two other College of Science facilities (Robeson Hall to the east, and Hahn Hall North to the north) positions this building to expose undergraduates to research activities.</p> <p>A renovation of Hahn Hall will extend the useful life of the facility as a critical science building and create modern teaching and laboratory spaces to support new pedagogical practices such as problem based learning and undergraduate research opportunities.</p> <p>The current facility is in need of a complete overhaul, due in part to the installation of an unproven hood exhaust system at the time of construction. The renovation will include an upgrade of all building systems and infrastructure to support modern instrumentation that is now the standard expectation for research.</p> <p>Physics Expansion</p> <p>The construction of a new four-story building will add approximately 53,000 gross square feet to the facilities portfolio of the Department of Physics. The expansion building will be constructed to meet contemporary laboratory design standards, providing additional instruction and research labs, lab support spaces, and a cleanroom. The cleanroom space will total 7,000 gross square feet and will advance research capabilities, keep the university competitive with other institutions nationwide, and help attract and retain top research faculty. Additional new</p>	

high-quality research lab space provided through the expansion will increase the inventory and use of shared instruments and shared laboratory spaces on campus, promoting university-based research that is a catalyst for outside investment in the commonwealth. The expansion will provide space for a materials education and research hub for nanoscience and nanomedicine programs, and allow for growth in the university's quantum information science, soft matter and biological physics, and experimental high energy/nuclear physics programs. New classroom space will allow for engaged, active learning pedagogy. An accessible high bay space with a crane will provide space to build equipment for upcoming large initiatives in experimental high energy and nuclear physics such as the Deep Underground Neutrino Experiment and the Electron Ion Collider.

The facility will replace an existing surface parking lot to the west of Hahn Hall South, within the core of the College of Science facilities. Additionally, this location preserves open space as landscaped areas for informal study and accessible parking near the core of campus.

This expansion will be clad in a combination of Hokie Stone, architectural precast concrete panels and trim, and a combination of point-supported glazing and punched opening windows, complementing the architectural materials in the existing core campus facilities. The expansion is expected to provide a strong contribution to the campus' collegiate gothic architecture and sense of place through its orientation, massing, and landscape.

The project scope, site development, and building configuration for the Hahn Hall South renovation and expansion shall be consistent with the 2018 master plan and include universal design principles as appropriate.

Justification

Program Description:

Hahn Hall South

Entering the 2019-2020 academic year, the Department of Chemistry will be comprised of 28 tenure-track faculty, 22 non-tenure track faculty, 12 part-time and full-time instructors, 15 postdoctoral research fellows, and 25 part-time and full-time staff members. These faculty members have been nationally and internationally recognized through numerous university, state, national and international awards including: two University Distinguished Professor, two Virginia Scientists of the year, 14 NSF Career or NIH FIRST awardees, 6 Research Corporation Cottrell Scholars, four Camille and Henry Dreyfus awardees, three Sloan Fellows, two Kavli Fellows of the US National Academy of Sciences, two Dirac Medalists and one Medal winner of the International Academy of Quantum Molecular Sciences.

The Chemistry Department teaches at least one class to 70 percent of all students at Virginia Tech. During the 2018-2019 academic year, the department had a total enrollment of approximately 200 undergraduate students and 142 graduate students. Chemistry faculty also mentored another 30 graduate students in the interdisciplinary Macromolecular Science and Engineering Degree program. In the 2018-2019 academic year, the chemistry faculty graduated 40 B.S. and B.A. students and at least 17 Ph.D. and 8 M.S. students. Starting in the fall 2019 semester, the department will be offering two new majors, Polymer Chemistry and Molecular Chemistry, under the chemistry degree.

The Chemistry department promotes university-based research that produces outside investment in the commonwealth. In the 2017-2018 fiscal year, the department had approximately \$8.6 million in research expenditures. Recent research accomplishments from the department include: Establishment of the Molecular Sciences Software Institute, a five-year, \$19.4 million National Science Foundation funded center (2016), a \$2.8 million National Institute of Health funded collaboration with the University of Virginia to discover drugs to treat auto-immune disorders, and a \$1.8 million Department of Energy funded collaboration with the Department of Physics to perform simulations of molecules on small, custom built superconducting quantum computers. The faculty also provide leadership to the Macromolecules and Innovation Institute, the Macromolecular Science and Engineering Degree program, the Economical and Sustainable Materials Strategic Growth Area, and the Virginia Tech Center for Drug Discovery. The Department also oversees multiple university service centers that serve the faculty and students at Virginia Tech as well as local and national industrial partners. Facilities in Hahn Hall South include nuclear magnetic resonance spectroscopy and mass spectrometry, a Surface Analysis Laboratory, and a laboratory glass shop.

Renovating Hahn Hall South will help prepare Virginians for a knowledge-based economy by providing STEM-H instructional excellence, accomplished through cost efficient operation and technological, and pedagogical innovation.

Physics Expansion

The Department of Physics is comprised of 42 tenure-track faculty, part-time and full-time instructors, 21 postdoctoral research fellows, and 15 staff members. The department currently has a total enrollment of 310 undergraduate students and 85 graduate students. The department graduated a record number of 66 B.S. and B.A. students in 2018, placing it in the top 10 departments in the country in physics bachelor's degree production.

The Department of Physics provides a wide range of courses, including large service courses at the introductory level and a complete set of courses providing preparation for physics undergraduate and graduate students. Physics is a required core course for all undergraduates majoring in engineering, including those in the tech talent pipeline, and many of those majoring in the life sciences. Along with the Department of Biological Sciences, the Departments of Physics and Chemistry won a University Exemplary Department Award in 2017 for "developing and sustaining effective large-class instruction." For physics undergraduate majors, the department offers programs leading to the B.S. and B.A. degrees, with graduates going on to a wide range of options including graduate education and immediate employment in the private sector.

The Physics Teachers Education Coalition program prepares students to be high school physics teachers

In the most recent completed fiscal year (2017-18), the Physics department delivered 33,176 student credit hours of instruction. For fiscal year 2017-2018, the department's total research expenditures were \$4 million.

The Physics department promotes university-based research that produces outside investment in the commonwealth. Its sponsored research activity has grown from \$2 million in 2008 to \$4 million annually in 2018. Recent research accomplishments from the department include: significant federal funding obtained to support research in the area of quantum information science, development of a compact, mobile neutrino detector with potential applications to nuclear reactor monitoring for security reasons, and significant federal funding obtained in the area of critical dynamics theory.

The expansion space also supports the College of Science's theme of Materials for Health, Information, and Energy through the Nanoscience and Nanomedicine degree programs and the Economical and Sustainable Materials Strategic Growth Area.

Providing a hub for education and research in materials will be an important part of the expansion. The Nanoscience and Nanomedicine degree programs involve materials at the smallest length scales at which matter can be controlled. The new degrees have applications in the technology areas of electronics, information technology, medicine, renewable energy, aerospace, and advanced materials. The Economical and Sustainable Materials strategic growth area will prepare students for today's jobs that extend beyond traditional materials science. This project allows faculty to instill within students the skills and subject knowledge necessary to make fundamental materials discoveries. Materials scientists have a key role in the implementation of material discoveries into the real world and their integration into multiple cross-cutting fields such as health, energy, environment, and resilient infrastructure.

A new Physics Expansion building will help prepare Virginians for a knowledge-based economy by providing STEM-H instructional excellence, accomplished through cost efficient operation and technological, and pedagogical innovation.

The university's strategic plan includes the following principle strategies that will be supported by the Hahn Hall South and Physics Expansion projects:

- Increase and sustain excellence in research, discovery, and creativity.
- Increase teaching and learning excellence for a holistic education.
- Increase institutional impact and visibility. Achieve top US public land-grant ranking by 2024.
- Increase the four-year graduation rate for all undergraduate students to 70 percent as well as the three-year graduation rate for all undergraduate transfer students to 75 percent.
- Reduce the student average student loan debt per graduating senior to \$25,000 by 2024.
- Increase representational diversity, cultural competency, and address critical societal issues impacting humanity and equity.
- Attract, retain, and develop the talents of students, faculty and staff prepared to serve both the local and global communities while also supporting lifelong engagement and learning.
- Continue to develop the physical campus and technology infrastructure.
- Increase the number of programs recognized as among the best internationally.
- Increase the number of post-doctoral positions in STEM-H research areas.
- Increase undergraduate involvement in meaningful research experiences and experiential learning through hands on minds on.
- Continue to investigate, develop, and utilize current and emerging technologies to enhance traditional classrooms, provide mobile access, and expand high-quality distance-learning opportunities.
- Identify opportunities during construction and renovation to create flexible classroom spaces that fully support e-learning components.

Existing Facilities:

Hahn Hall South

Hahn Hall South was constructed in 1988 as phase one of a two-phase building project that spanned roughly two decades. The second phase, Hahn Hall North, was constructed in 2002 and is not directly included in this project's scope.

Hahn Hall South provides chemistry research laboratory space near the Drillfield and a concentration of College of Science facilities. The facility is physically connected to two other College of Science facilities. Hahn Hall North is connected through a lobby and stair, and Robeson Hall connects to Hahn Hall South through a three-story atrium.

Hahn Hall South is four stories tall and totals approximately 71,100 gross square feet, with a facility condition index of 35 percent in the FICAS system as of April 2019. The building houses the research laboratories, laboratory support spaces, and building systems space with a three-story atrium that provides connection to Robeson Hall on multiple levels. Hahn Hall South also includes offices, study space, and open area for symposia and related activities.

The use of scientific equipment, including computing and specialized laboratory equipment, is exceeding the capabilities of the existing mechanical, electrical, plumbing, and environmental control systems, particularly the building's original system for hooded ventilation. Hahn

Hall South's condition has progressed beyond the scope of normal operations and maintenance reserve repairs. In its current deteriorated condition, it no longer provides the instructional and research infrastructure needed in the 21st century.

Renovating the existing building, with a focus on the laboratory research environment, is the most efficient and cost effective option for providing functional space for the Department of Chemistry and additional opportunities for the College of Science.

Physics Expansion

The primary existing facilities for the Physics Department are Robeson Hall and Hahn Hall North. Combined, these facilities provide approximately 45,000 gross square feet of total instructional and research space. Robeson Hall was constructed in 1960 as the flagship building for the Physics Department and has not benefited from a major comprehensive renovation since its construction. Its building systems and laboratory environments are now substantially out-of-date. The building has extensive egress and ADA deficiencies and a facility condition index of 34 percent in the FICAS system as of April 2019. The use of scientific equipment, including computing and specialized laboratory equipment, is exceeding the capabilities of the existing mechanical, electrical, plumbing, and environmental control systems.

A new Physics Expansion building will bring Virginia Tech's Physics Department up to today's standards and provide sufficient research and instructional space to allow the university to begin renovations and upgrades to Robeson Hall to return it to its highest potential use.

Funding Plan:

The program of the Hahn Hall South renovation portion of this request is 80 percent research and 20 percent instruction and the program of the expansion portion of this request is 33 percent research and 67 percent instruction

The total funding plan for this \$104.3 million project calls for \$75 million of General Fund support for the instructional program and 50 percent of the research program. The remaining \$29.3 million of nongeneral fund authorization is for the university's 50 percent support of the research program. The nongeneral fund component is requested as a revenue bond authorization that will be repaid by overhead revenue generated from the research program.

Options Considered:

Options considered but not pursued include new construction of the desired space elsewhere on-campus and leasing the desired space at an off-campus location. These approaches would cost more than the proposed renovation, would not use the existing space inventory to its highest capacity use, and would leave a significant space asset not serviceable. In addition, the dispersion of instructional and research programs across multiple buildings would negatively impact students and faculty. The cost to construct the new building elsewhere on campus would be similar yet lack the adjacency of neighboring science programs. Leasing an off campus location is not financially viable as the university would incur construction costs due to the lack of suitable leasable inventory and would also incur the costs of a long term lease.

Methodology

Cost Explanation and Methodology:

A. Methods Used to Estimate Costs:

The method for estimating costs for the Renovate and Expand Hahn Hall project includes: 1) using unit costs in the Division of Engineering and Building's Construction Costs Database updated March 2018 with a regional market multiplier and a multiplier for softs costs; and 2) comparables as shown in the CR-1. Both methods are escalated to a construction midpoint of 2023 at four and a half percent escalation in accordance with the instructions for developing the Six-Year Capital Outlay Plan.

On a total project cost basis, inclusive of design, construction, and equipment, the unit costs are \$840 per gross square foot. The unit construction costs of the project are \$636 per gross square foot, including self-performed construction work. The building types in this request are wet laboratory, dry laboratory, and classroom spaces in the Division of Engineering and Building's Virginia Construction Costs Database.

The university's project cost estimates are derived from a database of on-campus construction costs of comparable project types. Virginia Tech building construction reflects the high level of quality, durability, and tradition that makes Virginia Tech a distinctive and memorable place for students. The estimates also include the cost of technology, specialized instruction, and energy efficiency goals of the institution.

Construction Manager at risk is the intended delivery method for this project.

B. This section is presented in two parts, Renovation and Expansions, to depict cost specific to each of the components of this project request. The proposed costs include the following critical considerations to ensure the project fully meets the needs of the program and the university:

Renovation of Hann Hall South:

1) Renovation of the existing portion of Hann Hall South will require the full inspection and repairs to the building envelope to extend the life of the facility. Extensive repointing of exterior masonry, installation of new windows, and replacement of the roofing system. The costs for this are included in the construction budget line item. Envelope commission and related inspection costs are carried in the Other Costs as they are

performed by a third party.

2) Renovation will involve complete replacement of mechanical, plumbing, electrical systems and building automation systems that have exceeded their useful life. New systems shall meet current code and energy requirements. It will also require installation of sprinkler, fire alarm systems, distributed antenna systems and accessibility improvements.

3) Building structural support systems will be evaluated once exposed and potentially modified to accommodate and support programmatic changes to the existing building. Raised floor systems will be evaluated for spaces that are prone to future changes allowing for maximum adaptation.

4) High-capacity wireless networks to support multiple devices (laptop computer, tablet computer, smartphone, and other WIFI devices) used simultaneously by students and faculty to retrieve information and to communicate and to connect digitally with sites around campus and around the world. Testing and instruction can utilize online applications requiring the capacity for an entire classroom to be connected simultaneously.

5) Power outlets corresponding to the seat/station count and power outlets in common areas will exceed the minimum code requirements by approximately 30 percent.

6) Automated audiovisual and lighting controls are included for all classroom and class laboratory spaces.

7) Climate controlled technology server rooms, 10 feet by 10 feet, on each floor of the building or as required to provide efficient distribution of services.

8) Communications infrastructure, wired and wireless, is installed by a university operated auxiliary; thus, these costs are shown in the Other Costs section of the proposed budget.

9) Restricted site access in a dense and active part of campus will increase mobilization and site logistics costs.

10) Code and regulation are updated over time. Following are some changes that have occurred that were not in place on the comparable projects that were used to provide the parametric estimate for this project:

- DEQ increased the storm water management requirements in 2014. Extensive BMP's and off-set credits are required to be installed and/or purchased to comply with this federal regulation.
- ASHRE 90.1 energy code stipulates that buildings use less energy with each successive issuance of the code. The most recent change requires 18.5 percent decrease in energy usage. This translates into increase capital costs.
- The state mandated High Performance Building Act provides three options for compliance. Virginia Tech utilized LEED V4, which mandates energy savings beyond the requirements of energy code, ASHRE 90.1. This increases the capital construction costs.
- LEED additionally requires the commissioning of the energy savings components. The costs are on the order of 0.75-1.3 percent of the construction costs. The services are provided by a third party and are captured in the Other Costs section.

Physics Expansion:

1) The building envelope will be comprised primarily of Hokie Stone with precast concrete accents consistent with university standards as affirmed by the Board of Visitors. Brick, metal panels, and siding materials are not permitted as substitutions for Hokie Stone. The stone is a four-inch thick nominal stone thickness with a two-inch nominal air barrier over moisture resistant sheathing. Stainless steel anchoring straps and load bearing shelf angles and stainless steel flashings comprise the structural support and flashings system. The university owns the stone quarries and provides the cut materials to the building; thus, the material costs along with intensive quality insurance inspection costs are carried in the Other Costs section of the proposed budget, while the construction budget carries all erection, final stone dressing, and installation costs.

2) Mechanical equipment and building automation systems are designed and selected to meet performance requirements and to optimize total costs of ownership inclusive of energy costs and operations and maintenance costs. System selections are justified based on a 30-year economic life cycle analysis. Mechanical equipment will be covered and secured to maximize equipment life and service.

3) Academic buildings include interior glazing for energy efficiency, lighting for academic work, and to enhance pedagogy while maintaining a secure room envelope.

4) Ceiling heights will be appropriate for proper sound attenuation in large lecture and assembly environments as required for effective pedagogy.

5) Building structural support systems will accommodate large open and unimpeded interior spaces to maximize long-term programmatic functionality and adaptation to new program space and technology arrangements. The structure is additionally designed to reduce vibrations that would negatively impact scientific research.

6) High-capacity wireless networks to support multiple devices (laptop computer, tablet computer, smartphone, and other WIFI devices) used simultaneously by students and faculty to retrieve information and to communicate and to connect digitally with sites around campus and around the world. Testing can utilize online applications requiring the capacity for an entire classroom to be connected simultaneously.

7) Power outlets corresponding to the seat/station count and power outlets in common areas will exceed the minimum code requirements by approximately 30 percent.

8) Automated audiovisual and lighting controls are included for all classroom and class laboratory spaces.

9) Climate controlled technology server rooms, 10 feet by 10 feet, on each floor of the building.

10) Communications infrastructure, both wired and wireless, is installed by a university operated auxiliary; thus, these costs are shown in the Other Costs section of the proposed budget.

11) Site development costs in this region are historically in the medium to high range and require generally significant subsurface rock excavation and removal and deep foundations. This site may require extensive subsurface rock excavation and removal.

12) Utilities (power, chilled water, domestic water, sanitary sewer, natural gas, technology, and storm water infrastructure) do not terminate at the building site and their extension or on-site provision is anticipated to be a sizable cost driver for this project.

13) Restricted site access in a dense and active part of campus will increase mobilization and site logistics costs. Limited material lay-down areas increase material costs and risks due to necessitating just in time delivery and/or off-site storage.

14) Code and regulation are updated over time. Following are some changes that have occurred that were not in place on the comparable projects that were used to provide the parametric estimate for this project:

- DEQ increased the storm water management requirements in 2014. Extensive BMP's and off-set credits are required to be installed and/ or purchased to comply with this federal regulation.
- ASHRE 90.1 energy code stipulates that buildings use less energy with each successive issuance of the code. The most recent change requires 18.5 percent decrease in energy usage. This translates into increase capital costs.
- The state mandated High Performance Building Act provides three options for compliance. Virginia Tech utilized LEED V4 which mandates energy savings beyond the requirements of energy code, ASHRE 90.1. This increases the capital construction costs.
- LEED additionally requires the commissioning of the energy savings components. The costs are on the order of 0.75-1.3 percent of the construction costs. The services are provided by a third party and are captured in the Other Costs section.

Funding Request

Phase	Year	Subobject	Fund	Amount
Full Funding	2021	2322 - Construction, Buildings	01000 - General Fund	\$75,000,000
Full Funding	2021	2322 - Construction, Buildings	08150 - 9(D) Rev Bonds-Construction	\$29,300,000
Total				\$104,300,000

Project Costs

Cost Type	Requested Funding
Acquisition Cost	\$0
Building & Built-in Equipment	\$79,016,354
Sitework & Utility Construction	\$0
Construction Cost Total	\$79,016,354
DESIGN & RELATED SERVICE ITEMS	
A/E Basic Services	\$8,454,750
A/E Reimbursables	\$110,623
Specialty Consultants (Food Service, Acoustics, etc.)	\$0
CM Design Phase Services	\$189,639
Subsurface Investigations (Geotech, Soil Borings)	\$39,508
Land Survey	\$0
Archeological Survey	\$0
Hazmat Survey & Design	\$23,705

Value Engineering Services	\$0
Cost Estimating Services	\$15,803
Other Design & Related Services	\$513,607
Design & Related Services Total	\$9,347,635
INSPECTION & TESTING SERVICE ITEMS	
Project Inspection Services (inhouse or consultant)	\$561,016
Project Testing Services (conc., steel, roofing, etc.)	\$331,869
Inspection & Testing Services Total	\$892,885
PROJECT MANAGEMENT & OTHER COST ITEMS	
Project Management (inhouse or consultant)	\$1,036,555
Work By Owner	\$285,482
BCOM Services	\$126,426
Advertisements	\$7,902
Printing & Reproduction	\$7,902
Moving & Relocation Expenses	\$357,109
AV Cabling	\$0
IT Cabling	\$0
Telephone Cabling	\$0
AV Equipment	\$0
IT Equipment	\$2,228,261
Telephone Equipment	\$0
Signage	\$55,311
Demolition	\$0
Hazardous Material Abatement	\$357,109
Utility Connection Fees	\$0
Utility Relocations	\$616,328
Commissioning	\$1,185,245
Miscellaneous Other Costs	\$1,287,967
Project Management & Other Costs Total	\$7,551,597
Furnishings & Movable Equipment	\$5,911,202
Construction Contingency	\$1,580,327
TOTAL PROJECT COST	\$104,300,000

Size and Scope

Cost Type	Unit of Measure	Units	Cost Per Unit
Acquisition Cost		0	\$0
Construction Cost	GSF	124,147	\$636
Total Project Cost	GSF	124,147	\$840

Operating and Maintenance Costs

Cost Type	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
GF Dollars	\$0	\$0	\$0	\$975,895	\$1,005,171	\$1,035,327
NGF Dollars	\$0	\$0	\$0	\$0	\$0	\$0
GF Positions	0.00	0.00	0.00	5.06	5.06	5.06
NGF Positions	0.00	0.00	0.00	0.00	0.00	0.00
GF Transfer	\$0	\$0	\$0	\$0	\$0	\$0
GF Revenue	\$0	\$0	\$0	\$0	\$0	\$0
Layoffs	0	0	0	0	0	0

Planned start date of new O&M costs (if different than the beginning of the fiscal year):---

Supporting Documents

File Name	File Size	Uploaded By	Upload Date	Comment
03- Renovate and Expand Hahn Hall Program Chart.pdf	448,800	Cassidy Limer	7/24/2019	
03 - CR-1e Project Planner-COMBINED -Hahn Hall-VIRGINIA TECH-State Version.xlsx	620,529	Cassidy Limer	7/29/2019	

Workflow History

User Name	Claimed	Submitted	Step Name	Submit Action
Cassidy Limer	07/16/2019 03:49 PM	07/16/2019 03:49 PM	Enter Capital Budget Request	Continue Working
Cassidy Limer	07/16/2019 03:49 PM	07/24/2019 03:08 PM	Continue Drafting	Continue Working
Cassidy Limer	07/25/2019 05:28 PM	07/25/2019 05:36 PM	Continue Drafting	Continue Working
Cassidy Limer	07/25/2019 09:18 PM	07/26/2019 12:34 PM	Continue Drafting	Submit for Agency Review
Rob Mann	07/26/2019 01:57 PM	07/26/2019 02:02 PM	Agency Review Step 1	Ready for DPB Bulk Submit
Rob Mann	07/26/2019 02:16 PM	07/26/2019 02:16 PM	Ready for DPB Submission	Submit to DPB
Anne Smith	07/26/2019 03:46 PM	07/26/2019 03:46 PM	DPB Review	Return to Previous Submitter
Rob Mann	07/29/2019 10:05 AM	07/29/2019 10:06 AM	Agency Review Step 1	Return for Further Data Entry
Cassidy Limer	07/29/2019 03:32 PM	07/29/2019 04:03 PM	Continue Drafting	Continue Working
Jennifer Hundley	07/29/2019 04:45 PM	07/29/2019 04:56 PM	Continue Drafting	Continue Working
Jennifer Hundley	07/30/2019 10:42 AM	07/30/2019 10:44 AM	Continue Drafting	Submit for Agency Review
Rob Mann	07/30/2019 12:32 PM	07/30/2019 12:32 PM	Agency Review Step 1	Return for Further Data Entry
Cassidy Limer	07/30/2019 04:43 PM	07/30/2019 04:43 PM	Continue Drafting	Submit for Agency Review
Rob Mann	07/31/2019 09:53 AM	07/31/2019 09:54 AM	Agency Review Step 1	Return for Further Data Entry
Cassidy Limer	07/31/2019 11:29 AM	07/31/2019 11:38 AM	Continue Drafting	Submit for Agency Review
Rob Mann	07/31/2019 03:38 PM	07/31/2019 03:44 PM	Agency Review Step 1	Ready for DPB Bulk Submit
Rob Mann	07/31/2019 03:44 PM	07/31/2019 03:44 PM	Ready for DPB Submission	Submit to DPB
Anne Smith	07/31/2019 05:27 PM	07/31/2019 05:28 PM	DPB Review	Continue Review
			DPB Review	