

**South Dakota Science and Technology Authority Board of Directors**  
**Meeting Minutes**  
**Thursday, March 19, 2020**  
**Lead, South Dakota**

The Board of Directors of the South Dakota Science and Technology Authority (SDSTA) convened at 8:00 AM Mountain Time (MT) on Thursday, March 19, 2020, in the Education and Outreach (E&O) Building Conference Room at the South Dakota Science and Technology Authority, 630 East Summit Street, Lead, South Dakota.

**MEMBERS OF THE BOARD IN ATTENDANCE**

Dr. Ani Aprahamian (by phone)  
Vice Chairperson Dana Dykhouse (by phone)  
Secretary/Treasurer Patricia Lebrun (by phone)  
Chairperson Casey Peterson (by phone)  
Dr. James Rankin, ex-officio (by phone)  
Vice Chairperson Ron Wheeler (by phone)  
Dr. Robert Wilson (by phone)

**MEMBERS OF THE BOARD ABSENT**

Mr. Roger Musick

**SDSTA STAFF**

Mr. Tim Engel, Legal Counsel (by phone)  
Ms. Nancy Geary, Chief Financial Officer  
Mr. Mike Headley, Executive Director  
Mr. Jaret Heise, Science Liaison Director  
Ms. Mandy Knight, Administrative Services Manager  
Mr. William McElroy, Operations Program Manager  
Mr. KC Russell, Cultural Diversity Coordinator (by phone)  
Mr. Matt Symonds, Contracts & Procurement Manager (by phone)  
Mr. Allan Stratman, Engineering Director  
Ms. Constance Walter, Communications Director (by phone)  
Ms. Natasha Wheeler, Administrative Assistant

**ALSO PRESENT DURING ALL OR PART OF THE MEETING**

Ms. Elizabeth Freer, dialogue LLC Principal and Owner (by phone)  
Mr. Alex Portal, Black Hills Pioneer Journalist  
Ms. Debra Wolf, E&O Director (BHSU) (by phone)

**ITEM 1. CALL TO ORDER**

Chairperson Casey Peterson called the meeting to order at 8:00 AM (MT). Roll call was held. Dr. Ani Aprahamian, Mr. Dana Dykhouse, Ms. Pat Lebrun, Chairperson Peterson, Mr. Ron Wheeler, Dr. Bob Wilson and Dr. Jim Rankin were present by phone. Mr. Musick was absent. Chairperson Peterson then asked audience members to introduce themselves.

He said if anyone from the audience had any questions or comments for the board to address, to please complete the public comment form located at the sign-in table at the listening post and time will be given at the end of the agenda to discuss.

## **ITEM 2. APPROVE AGENDA**

Chairperson Peterson asked if there were any modifications to the agenda. Hearing none, Chairperson Peterson asked for a motion to approve the agenda.

*Motion by Ms. Lebrun and seconded by Mr. Dykhouse to approve the agenda as presented. Motion passed unanimously by roll call vote.*

## **ITEM 3. APPROVE MINUTES**

Chairperson Peterson asked for any comments on the December 27, 2019 or February 25, 2020 Minutes. Hearing none, he asked for a motion to approve the minutes.

*Motion by Mr. Wheeler and seconded by Mr. Dykhouse to approve the Minutes of the December 27, 2019 meeting and February 25, 2020 meetings as presented. Motion passed unanimously by roll call vote.*

## **ITEM 4. GENERAL CONFLICT OF INTEREST DISCLOSURE**

SDSTA Legal Counsel Mr. Tim Engel invited members of the board to disclose anything that might be construed to be a conflict of interest relative to matters under consideration at today's meeting.

No conflicts of interest were disclosed.

## **ITEM 5. DISCLOSURES AND WAIVER UNDER SDCL CH. 3-23**

Mr. Engel said in regard to disclosures and waivers under SDCL Ch. 3-23, he polled the board members prior to the meeting and no disclosures were made. Mr. Engel stated no board action is required.

## **ITEM 6. AUDIT COMMITTEE UPDATE AND AUDIT REPORT FY ENDED JUNE 30, 2019 APPROVAL**

Ms. Lebrun said the board, in December, reviewed the audit report for the fiscal year that ended June 30, 2019 and there are no issues of concern. She thanked Ms. Geary, Mr. Headley and their staff, as well as the state staff for efficient operations during the audit report process, and submitted the report for board approval.

*Motion by Ms. Lebrun and seconded by Mr. Wheeler to accept the Audit Report Fiscal Year Ended June 30, 2019 as reviewed and discussed at the December 12, 2019 board meeting. Motion passed unanimously by roll call vote.*

## **ITEM 7. FINANCIAL REPORT**

### **ITEM 7A. FEBRUARY FINANCIAL REPORT AND SUMMARIES**

Ms. Geary noted that actual expenditures for February were slightly over budget (\$46,000.00) for Cooperative Agreement (CA) funds, by mainly due to the purchase of two pieces of equipment to support the deep well pump installation. She said, year-to-date, there is an underrun that will likely be balanced out throughout the year. Ms. Geary also noted there was a substantial increase in the cost of liability insurance this year, but it was anticipated in the indirect rate and should be covered by currently established contracts. In other reports, Ms. Geary said there is nothing of note to report, and accounts receivable and cash are similar to previous reports.

### **ITEM 7B. INTERNAL CONTROLS AUDIT UPDATE**

Ms. Geary said the report received from the internal control auditor Clifton Larson Allen was sent to the board members for their review. She said the report addresses accounts receivable, governance, accounts

payable and electronic funds transfer. Another report will be issued addressing several other controls yet to be reviewed, and will include purchasing and overall computer system controls such as closing the general ledger month. The initial report gave a rating of “satisfactory,” from the three reporting options of satisfactory, needs improvement and unsatisfactory. Ms. Geary said there were two recommendations—segregations of functions concerning accounts payable, and posting of payroll to the bank. Ms. Geary said, by recently hiring a new accountant, both of those recommendations have been addressed, as the new accountant will be a backup employee for accounts payable and she will have the second security key fob used to post payroll to the bank. SDSTA Accountant Ms. Melanie Tollefson has the first key fob.

#### **ITEM 7C. MAY, ADAM, GERDES & THOMPSON LLP HOURLY RATE INCREASE**

Mr. Headley referred to the board packet to discuss a letter from Mr. Engel’s firm May, Adam, Gerdes & Thompson LLP, describing the firm’s rate structure and noted the last rate increase was June 2016. Mr. Headley said Mr. Engel and his firm requested a rate increase, to meet the prevailing rate for work done for state government, at \$190 per hour for partners and \$170 per hour for associates. Mr. Headley said, the service from Mr. Engel’s firm has been outstanding, noting that Mr. Engel and his firm are incredibly responsive, offer tremendous legal advice, and SDSTA appreciates the partnership with the firm. Mr. Headley requested approval from the board for the requested rate increase. Chairperson Peterson echoed Mr. Headley’s praise of the firm and called for a vote. Mr. Engel thanked the SDSTA and board for their consideration of the rate increase and voiced his appreciation for working with SDSTA.

*Motion by Mr. Dykhouse and seconded by Mr. Wheeler to approve the hourly rate increase as presented. Motion passed unanimously by roll call vote.*

Chairperson Peterson called for a motion to approve the Financial Report in Item 6.

*Motion by Mr. Wheeler and seconded by Mr. Dykhouse to accept the financial report as presented. Motion passed unanimously by roll call vote.*

#### **ITEM 8. REPORT FROM EXECUTIVE DIRECTOR**

##### **ITEM 8A-1. DECLARATIONS OF SURPLUS (5)**

Mr. Headley said the first three items declared surpluses are a Western plow, Arctic Cat ATV, and Chevy Suburban—three pieces of equipment that are high maintenance items. He said the CA will allow allocation of funds to replace the aging equipment. Mr. Headley also reported that two Mine Shield refuge chamber units, for which parts are no longer available, and which are scheduled to be replaced, have been declared to be surplus. Lastly, two chillers from the Davis Campus, which need to be replaced by larger units with a greater capacity for the heat load associated with the LUX-ZEPLIN (LZ) experiment, were declared surplus.

##### **ITEM 8A-2. SDSTA QUARTERLY UPDATE**

Mr. Headley said safety performance continues to be quite strong, although there was one reportable injury with lost time that occurred in February during a 30-inch snowstorm, when an Emergency Response Team member fell during an essential personnel work shift. The employee will need minor surgery in the coming weeks. Mr. Headley noted, prior to this incident, SDSTA successfully completed 22 consecutive months of injury-free performance, and the safety culture remains strong.

Mr. Headley said federal funding support remains strong, and the federal fiscal year 2020 (FY20) budget was approved, including \$171 million for the Long Baseline Neutrino Facility/Deep Underground Neutrino Experiment (LBNF/DUNE) and \$30 million for SURF. He said the FY2021 President’s

Budget Request was released to Congress and he expects that the strong support for SDSTA will result in an appropriation that meets project needs.

Mr. Headley said SDSTA is in the sixth month of performance under the SURF Operations CA, and an additional \$5.5 million has been requested for Infrastructure Improvement Projects; the proposal has been presented to the Department of Energy (DOE).

Mr. Headley noted LBNF pre-excavation work continues, LZ is continuing their installation activities, all the xenon has been received since the last board meeting, and the team is now preparing for purification. The transition of Ross Campus science activities to other locations to create distance from the upcoming LBNF/DUNE activities is underway for BHUC and SIGMA-V, while CASPAR will continue operating through late 2020 in their current space so the PhD students can collect sufficient data for their final papers. Mr. Headley also noted, current world health events, including the San Francisco Bay area's shelter-in-place mandate, are having an impact on the work.

Mr. Headley said the approved guaranteed maximum price has been approved for the maintenance support facility, all the work has been bid out for the project, and the foundation contractor has mobilized and is starting site preparation. He also said, SURF Institute plans will next focus on interviews with underground science leaders.

Mr. Headley noted that the SURF COVID-19 response is going well overall, and several controls have been put in place to help control exposure for all staff onsite. He explained a phased approach to operations has been developed, and currently SURF is operating at two shifts per day, with 46 staff telecommuting. He said phased operations are based on the availability of staff in key roles, such as infrastructure technicians, hoist operators, emergency response and security personnel.

Mr. Headley shared a new employee organization chart, explaining that there has been restructuring, and Mr. Will McElroy is now managing the Engineering, Facility Maintenance and Underground Operations Departments, reducing the number of direct reports to Mr. Headley and supporting the integration of operations and engineering work across the site.

## **ITEM 8B. SCIENCE UPDATE**

Dr. Heise provided a brief update on current science projects underway onsite, beginning with physics-based projects. He said LZ has been busy in the last six months following up on the installation of the detector last fall, adding that LZ has been working two (day and night) shifts since mid-November, and the future of the project includes plans to start detector operations this summer, to run for five years.

Addressing COVID-19 concerns, Dr. Heise noted that the safety of the scientists and of their equipment comes first, and SDSTA is working closely with the experiments to follow the best course of action as information becomes available. Delays are expected but have not yet been determined.

Dr. Heise said the Majorana Demonstrator (MJD) is working on hardware upgrades on five of their detector strings, copper electroforming has moved from the temporary cleanroom at the Ross Campus to the Davis Campus, and the MJD experiment plans to collect data through 2020, possibly longer, to reach the project data goal. He said, they plan to soon start testing LEGEND-200 detectors in a low-background environment at the Davis Campus, and a DOE advisory panel for nuclear science will select a site for the ten-scale  $0\nu\beta\beta$  before the technology down selection.

Dr. Heise said CASPAR completed an initial data collection with a neon-22 gas target, and is gathering data which may already be extending knowledge about certain reactions. He said, CASPAR will be optimizing their data campaign schedule to account for LBNF early excavation, and the experiment is awaiting a response on the National Science Foundation mid-scale research infrastructure proposal that was submitted to fund an accelerator upgrade.

Dr. Heise said the Black Hills State University Underground Campus (BHUC) continues regular assays with SURF assistance, and discussions are advancing for the decommissioning of the campus to support early LBNF early excavation, including plans to upgrade the cooling system prior to the migration.

He also provided updates on several other experiments onsite, including SIGMA-V, working at the 4850L and reviewing work at the 4100L, geology work being executed by GEOX at the 2000L and the 4850L, biology work being executed by DeMMO at the 800L, 2000L, 4100L and 4850L, BHSU research at the 4850L, and successful heat imaging research by Thermal Breakout.

#### **ITEM 8C. FACILITY INFRASTRUCTURE IMPROVEMENT PROGRAM UPDATE**

SDSTA Engineering Director Al Stratman said, in FY19, DOE recognized the need for a SURF Infrastructure Improvement Program (IIP) focused on modernizing the current site infrastructure. A five-year IIP was developed to inform SURF Operations through the CA proposal. He said, it focused on larger scale projects not covered in the general operations budget and improvement project scopes were created to support the overall SURF facility, versus infrastructure for a particular science experiment. In FY20, projects received technical approval with an initial CA award of \$9.75 million, and a focus on firefighting, hoist reliability and shaft security. Mr. Stratman said, each year, SDSTA will propose a list of improvement projects to DOE for technical review, approval, and funding, and the IIP projects will be prioritized based on risk assessments and operational need.

Mr. Stratman said, starting with the approved FY20 project budget, \$604,000.00 is allocated to a fire safety control project, updating refuge chambers and an air door. He said, other planned projects include improvement at the headframes by replacing all entrance doors on the Ross and Yates Headframe buildings with card-access-capable security doors to address security risks, a Yates Cage Hoist Motor-Generator set refurbishment, an industrial and potable water update design project to replace the existing system serving the Yates Complex, a project designed to improve cooling capacity for 4850L Davis Campus experiment areas by replacing existing chillers, condenser coils and circulation pumps, and a water inflow system replacement project designed to replace dilapidated wooden structures with concrete walls.

Mr. Stratman said, under the CA, \$4.26 million was authorized for FY20, and the DOE appropriation authorized an additional \$5.5 million for the IIP Program, resulting in a request from DOE for an outline of additional projects to be executed in FY20. He said these projects include an industrial/potable waterline replacement at the Ross Complex, a Ross Campus bathroom project on the 4850L, a waste water treatment plant gravity flow upgrade project, a Ross and Yates Hoistroom drains and tuckpointing project designed to replace leaking, cast iron roof drain lines, and a Yates Shaft rehabilitation concept study. Mr. Stratman noted these projects are awaiting DOE technical reviews and approvals, and initial planning for the highest priority projects is already underway. He said the FY21 IIP program submission was \$15.2 million, and the DOE awards will dictate what budgets and projects can be executed in the coming fiscal year.

*Motion by Mr. Dykhouse and seconded by Mr. Wheeler to accept executive director's report as presented. Motion passed unanimously by roll call vote.*

#### **ITEM 9. SURF INSTITUTE SCIENCE PROGRAM SCOPING STUDY**

Chairperson Peterson said, on February 28, the SURF Foundation board met, hearing from Foundation Director Staci Miller about Foundation updates and review of initial marketing materials. He said the board realized the scope of the Institute and fundraising goals need to be better defined before additional Foundation board members are sought out and fundraising begins. He said Elizabeth Freer with dialogue, LLC, who conducted phase one of the institute research study, was asked to provide a proposal to conduct a phase two study. Mr. Engel noted that this presents a conflict of interest due to the fact the

Ms. Freer is married to Mr. Headley. He requested questions for Mr. Headley before asking him to leave the room for the ensuing conflict of interest discussion. No questions were asked, Mr. Headley left the room and Chairperson Peterson noted that Ms. Freer was participating in the meeting via phone.

*Motion by Mr. Wheeler and seconded by Dr. Wilson to recognize the conflict of interest that arises by contracting Dialogue, LLC to perform work for SDSTA. Motion passed unanimously by roll call vote.*

Mr. Engel advised the board to discuss any potential contractors who may be hired within reasonable efforts for the same, or better, value without incurring a conflict of interest. Discussion amongst board members concluded that Ms. Freer was deemed appropriate for the initial phase of the study and her role as the contractor for the second phase of the study is invaluable due to her familiarity with the project and her participation in the site visits and data gathering of the phase one study. If a different consultant were retained, the new consultant would have to review the research conducted and materials generated in connection with the first report, which would result in significant additional cost for SDSTA.

Ms. Freer explained that phase two of the study will involve interviewing approximately twenty professionals in the scientific community to gather their insight about the need for an institute and what value it could provide to the community. She will compile a comprehensive report outlining potential strategies for moving forward with the project. She noted that her proposal and project design was submitted to Chairperson Peterson on March 13, 2020.

*Motion by Mr. Wheeler and seconded by Mr. Dykhouse to confirm SDSTA cannot, with reasonable efforts, obtain a more advantageous arrangement with a party that will not result in a conflict of interest, and to allocate SDSTA funding and authorize the chairperson to modify the existing contract with dialogue, LLC to provide a SURF Institute Science Program report. Motion passed unanimously by roll call vote.*

## **ITEM 10. EXECUTIVE SESSION**

*Motion by Dr. Wilson and seconded by Mr. Wheeler to enter into executive session to discuss personnel matters and to consult with legal counsel concerning legal and contractual matters. Motion passed unanimously by roll call vote.*

*The board recessed at 9:38 AM for a ten-minute break followed by executive session.*

*Due to technical difficulties, Dr. Aprahamian did not join executive session.*

*The board reconvened in open session at 10:44 AM. Roll call was taken with Mr. Dykhouse, Chairperson Peterson, Mr. Wheeler, and Dr. Bob Wilson present, which constituted a quorum.*

## **ITEM 11. REPORT FROM EXECUTIVE SESSION**

Chairperson Peterson reported that the board met in executive session and discussed personnel matters and consulted with legal counsel concerning legal and contractual matters. No action was taken.

*Motion by Mr. Dykhouse and seconded by Mr. Wheeler to approve the executive session report. Motion passed unanimously by roll call vote.*

## **ITEM 12. SELECT NOMINATING COMMITTEE**

Chairperson Peterson said he asked Mr. Dykhouse and Mr. Musick to serve as the nominating committee, and the request was accepted by both individuals. Mr. Dykhouse said they would set up a meeting in the next month or two and propose a slate of nominees for the June meeting.

Election of officers will be held at the annual board meeting in June.

*Due to technical difficulties Ms. Lebrun was not able to rejoin the meeting until 10:48 AM.*

### **ITEM 13. REVIEW AND APPROVE SDSTA POLICY AND PROCEDURES**

Mr. Headley noted changes to several SDSTA policies and procedures, including updated language for competition requirements in the Procurement Policy and Sole-Source Policy to reflect recent discussions with the DOE and CA. He also introduced a new Foreign Access Policy to meet CA requirements for documenting and tracking foreign nationals at SURF, noted changes to the Tobacco-Free Property Policy. He also highlighted changes in the Procurement Methods and Thresholds Procedure and Tobacco-Free Procedure.

*Motion by Mr. Wheeler and seconded by Mr. Dykhouse to approve updated Procurement Policy, Sole-Source Policy, Tobacco-Free Property Policy and the new Foreign Access Policy as presented. Motion passed unanimously by roll call vote.*

Mr. Headley said an emergency change was made to the agenda late on March 18. Mr. Engel said it is allowable under South Dakota Codified Law (SDCL)-1.25-1.3 for state board special meetings to be held with less than three-days' notice, there were emergent circumstances present here and the addition of the agenda item on March 18 was the equivalent of calling a special meeting for the purpose of considering that item. Mr. Headley said the Executive Order and emergency amendment to the Leave Policy make allowances for modified sick leave use, and administrative leave use and pay structure impacting hourly staff if an essential personnel-only status is enacted due to COVID-19 concerns, respectively.

*Motion by Mr. Wheeler and seconded by Ms. Lebrun to approve the emergency amendment to the Leave Policy as presented. Motion passed unanimously by roll call vote.*

### **ITEM 14. CONFIRM DATE AND TIME OF NEXT MEETING**

Chairperson Peterson reminded the board of the next meeting (the annual meeting,) scheduled for June 25, 2020 at 8:00 AM (MT), and hopes to see everyone in person at the meeting.

### **ITEM 15. PUBLIC COMMENTS**

Chairperson Peterson announced he did not receive any public comment request forms. There were no questions or requests from the audience or on the phone to provide public comment.

### **ITEM 16. BOARD COMMENTS**

Mr. Dykhouse acknowledged the fluid situation surrounding the current COVID-19 issue, and also mentioned a recent article in Black Hills Business Magazine touting SURF and its mission. Ms. Knight said she would work with the Communications Department to request hard copies and forward to the board members.

Ms. Lebrun had no comments, but she commended the group for successfully handling the meeting-by-phone.

Mr. Wheeler had no comments.

Dr. Wilson commended Mr. Headley and his team for their response to the COVID-19 emergence and noted their control and planning in handling the crisis.

Mr. Engel thanked the board for the approved rate increase to his firm and the continued opportunity to work with the SDSTA.

Mr. Headley thanked everyone for their patience with the telephonic meeting, thanked the board for their support, and recognized the SDSTA team for doing their part during the COVID-19 emergency to operate as successfully as possible. He also thanked Mr. McElroy for his leadership in planning and support.

Chairperson Peterson said he appreciates everyone, recognizes the trying times and hopes that everyone stays well. He gave kudos to the team and management for continuing to operate and function in light of fear and uncertainty. He said it shows bravery and courage, and that is how these things are defeated. He thanked everyone for their attendance.

#### **ITEM 17. ADJOURN**

Chairperson Peterson called for a motion to adjourn.

*Motion by Mr. Dykhouse and seconded by Mr. Wheeler to adjourn. Motion passed unanimously by roll call vote.*

**Meeting adjourned at 11:02 AM.**