

South Dakota Science and Technology Authority Board of Directors
Meeting Minutes
Thursday, March 21, 2019
Lead, South Dakota

The Board of Directors of the South Dakota Science and Technology Authority (SDSTA) convened at 8:02 AM Mountain Time (MT) on Thursday, March 21, 2019, 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

Vice Chairperson Dana Dykhouse (by phone)
Secretary/Treasurer Patricia Lebrun (by phone)
Mr. Roger Musick (by phone)
Chairperson Casey Peterson (in person)
Dr. James Rankin, ex-officio (in person)
Vice Chairperson Ron Wheeler (in person)

MEMBERS OF THE BOARD ABSENT

Dr. Ani Aprahamian
Dr. Robert Wilson

SDSTA STAFF

Ms. Brooke Anderson, Technical Coordinator Support
Mr. Tim Baumgartner, Facility Infrastructure Director
Ms. Jaye Conrad, Technical Coordinator
Mr. Tim Engel, Legal Counsel
Ms. Nancy Geary, Chief Financial Officer
Mr. Mike Headley, Executive Director
Dr. Jaret Heise, Science Liaison Director
Ms. Mandy Knight, Administrative Services Manager
Mr. Dan Regan, Surface Operations Foreman
Mr. KC Russell, Cultural Diversity Coordinator
Mr. Allan Stratman, Engineering Director
Ms. Constance Walter, Communications Director
Ms. Natasha Wheeler, Administrative Assistant

ALSO PRESENT DURING ALL OR PART OF THE MEETING

Mr. Brian Bonde, Advanced Certified Fundraising, LLC President (by phone)
Ms. Donna Job, Sanford Lab Homestake Visitor Center Executive Director
Dr. Peggy Norris, Education and Outreach (E&O) Deputy Director (BHSU)
Mr. Alex Portal, Black Hills Pioneer Journalist
Ms. Debra Wolf, E&O Director (BHSU)

ITEM 1. CALL TO ORDER

Chairperson Casey Peterson called the meeting to order at 8:02 AM (MT). Roll call was held. Chair Peterson and Mr. Ron Wheeler were present in person. Mr. Dana Dykhouse, Ms. Pat Lebrun and Mr. Roger Musick joined by phone. Dr. Ani Aprahamian and Dr. Bob Wilson were absent.

Chair Peterson then asked audience members to introduce themselves.

He said if anyone from the audience had any questions they would like the board to address, to please complete the public comment form located at the sign-in table 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 Mr. Wheeler and seconded by Mr. Dykhouse to approve the agenda as presented. Motion passed unanimously on a roll call vote.

ITEM 3. APPROVE MINUTES

Chairperson Peterson asked for any comments on the December 13, 2018 and February 21, 2019 Minutes. There were none.

Motion by Mr. Dykhouse and seconded by Mr. Wheeler to approve the Minutes of the December 13, 2018 and February 21, 2019 meetings as presented. Motion passed unanimously on a 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 to their role on the board.

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 there were none. No further action was required.

ITEM 6. AUDIT COMMITTEE REPORT & APPROVAL OF AUDIT REPORT FISCAL YEAR ENDED JUNE 30, 2018

Ms. Lebrun said the audit report had been reviewed in December and the board members were given the opportunity to review it until the March 21, 2019 board meeting. There were no additional questions at the meeting, and Ms. Lebrun requested a motion to approve the audit report.

Ms. Lebrun also stated that a subcommittee has been investigating the process for an internal audit to create a benchmark for future reference, as SDSTA continues to grow and receive additional funding. She said most major labs have their own internal control audit team, which SDSTA does not have. She added, efforts are underway to find a firm that can help guide the process going forward. The board will receive additional information in the next few weeks for review and discussion and then an updated Request for Proposal will be released. Ms. Lebrun voiced these updates to keep the public aware of the board's support to undertake an audit of the SDSTA internal control.

Dr. Jim Rankin, ex-officio board member, arrived at 8:12 AM (MT).

Motion by Mr. Musick and seconded by Mr. Wheeler to accept the Audit Report Fiscal Year Ended June 30, 2018 as reviewed and discussed at the December 13, 2018 board meeting. Motion passed unanimously on a roll call vote.

ITEM 7. FINANCIAL REPORT - February Financial Report and Summaries

Ms. Geary presented the financial report. She said SDSTA has received all funds from the South Dakota foundations for the xenon gas. There are still 240,000 liters to be received, with shipments scheduled between the current date and August 2019.

She added that work has begun on the maintenance support facility, and the asbestos abatement crew has begun their work.

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

ITEM 8. REPORT FROM THE EXECUTIVE DIRECTOR

ITEM 8A. SDSTA Quarterly Update

Mr. Headley began with an Environment, Safety and Health (ESH) update. He said all supervisors are undergoing Reasonable Suspicion Training concerning drugs and alcohol, a new Explosive Management Chapter is being drafted and the rewrite of the Fall Prevention Chapter is still underway. He continued, the final report is being created from the latest Safety and Support Perceptions survey, new Emergency Response Team members are undergoing training, Fatigue Management training has been added to both General Safety Basic and Annual Refresher trainings, the Hazard Communications Plan is under review, and Crosby Rigging training has been conducted.

Mr. Headley then reviewed the incident report, showing a continued reduction in incidents involving first aid or greater treatment and reported 96 percent of the 67 recommended actions have been completed from the 2016/2017/2018 biannual ESH Oversight Committee (ESHOC) reviews.

Moving on to cultural activities, Mr. Headley announced the next Cultural Awareness Committee meeting is set for April 3, 2019. He said STARBASE in Rapid City has completed level 2 certification. Mr. Headley noted four classroom presentations have been given to the American Horse School in Allen, SD on the Oglala Lakota Nation. He said SDSTA met with the newly-selected director of SD Tribal Affairs Dave Flute and supplied curriculum module kits. Also, a Sanford Lab presentation was provided to the Pierre Indian Learning Center.

He then noted the addition of the Diversity and Inclusion statement on the Sanford Lab website.

In regard to the Long-Baseline Neutrino Facility/Deep Underground Neutrino Experiment (LBNF/DUNE), Mr. Headley said pre-excavation construction is now underway, with 31 separate work packages under the Kiewit Alberici Joint Venture (KAJV) contract. The KAJV team mobilized in December 2018, and construction is underway on the surface and underground on the 4850 Level.

Referencing the economic impacts of SDSTA in South Dakota through the end of Fiscal Year 2018 (FY18), Mr. Headley said spending in SD was \$201 million as of September 30, 2018. He said, the total Fiscal Year 2019 (FY19) budget for all sources and activities is \$28.1 million, the FY19 Sanford Underground Research Facility (SURF) operations budget from DOE funds is \$18 million, the annual payroll budget in SD for FY19 is \$14.6 million, and the annual non-payroll budget in SD for FY19 is \$13.5 million. Mr. Headley said SDSTA is directly responsible for 180 jobs in SD, with 27 active research groups, 21 of which include SD members. He also showed a graphic depicting the distribution of spending across the state for paid vendors and salaries, indicating a combined total of \$201,046,877 in FY18.

Reviewing the K-12 student impact of SURF Education and Outreach (E&O) programs, Mr. Headley said 25,778 students have attended school assemblies between 2015 and 2018, 8,265 students have used science curriculum units, and 2,305 students have been on field trips to Sanford Lab for a total impact to 36,348 students. He said 20.2 percent of students participating have been from schools with greater than 10 percent American Indian population and 6.4 percent have been from schools with greater than 50 percent American Indian population. Mr. Headley also shared a photo from a recent middle school robotics competition, involving students whose robots were sent underground for testing while they watched a live-video stream at the surface.

Mr. Headley provided the board with two Declarations of Surplus. The first was a list of items that including a Tsurumi pump, roof drains and a sewer roter/motor no longer needed and sold as surplus. The second was for two concrete buckets no longer in use and sold to KAJV.

Mr. Headley then introduced SDSTA Technical Coordinators Ms. Brooke Anderson and Ms. Jaye Conrad. An update was provided on the ManagerPlus asset management software program used by SDSTA to track the procurement and maintenance of assets on property. Ms. Anderson explained that multiple departments including Operations, Science, Engineering and Underground Access use the program to guide the completion of regularly scheduled, preventative and unscheduled maintenance. She said ManagerPlus provides a way to request assistance or additional purchases needed from SDSTA to maintain normal operations as well. The Business Services Department and Warehouse also use ManagerPlus to track purchases, contracts and inventory. Ms. Anderson briefly described the work order process and highlighted the benefits of using ManagerPlus.

In response to questions from the board, Ms. Anderson explained ManagerPlus tracks asset costs and contains calendar features for scheduling. SDSTA Facility Infrastructure Director Mr. Tim Baumgartner added that project timelines can be manipulated within the program, but the goal is to use it for accurate reporting.

ITEM 8B. Science Update

Dr. Jaret Heise provided a presentation on the current experiments, beginning with the MAJORANA DEMONSTRATOR (MJD), an experiment investigating the properties of neutrinos. He said MJD continues to operate in production physics mode and mentioned the progress with the “electrowinning” installation (copper removal from electrolyte) at the Waste Water Treatment Plant. He noted that a DOE Critical Decision zero (CD-0) was issued in December of 2018 (*which documents material investments are justified*), and changes to germanium detectors within the experiment in the fall of 2020 will require new Memoranda of Understanding with SURF for expected continuation of the project.

In regard to Large Underground Xenon-ZEPLIN (LZ), the experiment searching for dark matter, Dr. Heise said there has been significant SURF (and contractor) efforts to restore Davis Campus cleanliness. He said multiple reviews have been completed, including a readiness review in October 2018 at Sanford Lab, a DOE independent project review in January 2019 at Lawrence Berkeley National Laboratory and a DOE LZ Operations review in March 2019 at Sanford Lab. Dr. Heise said an operational readiness review for cryogenics and xenon handling is planned in May at Sanford Lab. He highlighted the work progress of LZ on the surface and underground.

Dr. Heise reported on the Compact Accelerator for Performing Astrophysical Research (CASPAR), the experiment studying processes that occur in stars. He said the accelerator is performing well and the team is maximizing efficiency by staffing 24-hour coverage and minimizing periods when the accelerator is off. Along with other updates, he added a pre-proposal has been submitted for accelerator upgrade funding and if it is successful, a full proposal is expected in May 2019.

Dr. Heise said, at the Black Hills State University Underground Campus (BHUC) where materials are tested for radio-purity (*radiation levels*), refinements are continuing for the purge system, including increasing pressure in coordination with SURF cryogen and pressure experts and provided additional updates.

Dr. Heise concluded that proposed research efforts are occurring in the study-areas of physics, geology, biology and engineering.

ITEM 9. EXECUTIVE SESSION

Motion by Mr. Dykhouse and seconded by Mr. Musick to enter into executive session to discuss personnel matters and to consult with legal counsel concerning legal and contractual matters. Motion passed unanimously on a roll call vote.

The board recessed at 9:05 AM for a break and then entered into executive session.

Mr. Dykhouse left the meeting before entering executive session.

The board reconvened in open session at 10:14 AM. Mr. Engel confirmed a quorum was still in attendance at the reconvening of open session.

ITEM 10. REPORT FROM EXECUTIVE SESSION

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

Motion by Mr. Musick and seconded by Mr. Wheeler to approve the executive session report. Motion passed unanimously on a roll call vote with four in favor and none against.

ITEM 11. DISCUSS CREATION OF SDSTA FUNDRAISING FOUNDATION

Mr. Headley said there has been an interest in creating a foundation to increase funding, and a subcommittee of the board had met to discuss the scope of an overall fundraising campaign, focused on rehabilitating the E&O Building and additional funding for external communications and E&O efforts. He said the subcommittee has engaged the services of an outside consultant, Mr. Brian Bonde, to help structure and establish a fundraising campaign. Mr. Headley directed the board to the board packet for a summary on his findings.

By phone, Mr. Bonde introduced himself and briefly outlined his resume. He suggested creating a 501(c)(3) organization that is separate but connected to SDSTA, similar to other organization/foundation relationships such as the South Dakota Parks and Wildlife Foundation and South Dakota Game, Fish and Parks. Mr. Bonde identified three main steps: creating the foundation, obtaining the IRS 501(c)(3) designation, and creating a governance (board of directors) for the foundation. Mr. Bonde also explained that there are several ways a 501(c)(3) can be established, and said SDSTA would likely be most interested in connecting to the foundation through common board members and leadership-details will need to be worked out as the process moves forward.

Ms. Lebrun voiced concerns about an independent foundation with separate leadership, which she said can create difficulties in appropriating funds raised for the desired projects. Mr. Bonde concurred and said that conversations so far assume common leadership to help prevent those challenges.

Motion by Mr. Wheeler and seconded by Mr. Musick to authorize the chairperson and executive director to work with legal counsel to form an appropriate foundation legal entity, to authorize the chairperson to execute the necessary organizational documents and to authorize the use of up to \$15,000.00 of SDSTA funds for said purposes. Motion passed unanimously on a roll call vote.

ITEM 12. SELECT NOMINATING COMMITTEE

Chairperson Peterson said he had asked Mr. Musick and Mr. Dykhouse to serve on the Nominating Committee for the June meeting officer election and they have agreed.

Election of officers will be held at the annual board meeting, Thursday, June 20.

ITEM 13. CONFIRM DATE AND TIME OF NEXT MEETING

Chairperson Peterson asked if anyone had concerns with the board meeting scheduled for Thursday, June 20 at 8:00 AM (MT). No objections were made.

ITEM 14. PUBLIC COMMENTS

Chairperson Peterson announced he did not receive any public comment request forms. There were no questions from the audience.

ITEM 15. BOARD COMMENTS

Ms. Lebrun said she appreciates the ease of using ReadyTalk conferencing to access meetings by phone and thanked the SDSTA staff for facilitating its use. She said she looks forward to seeing the board in June.

Mr. Musick said the meeting was very interesting and appreciates how much he is learning.

Mr. Wheeler voiced his appreciation to the staff and echoed the improved safety record exhibited at SDSTA.

Mr. Engel said SDSTA provides fun and interesting work and expressed appreciation for the staff.

Mr. Headley also expressed appreciation for the staff, thanking Ms. Knight and SDSTA Administrative Assistant Ms. Natasha Wheeler for organizing and supporting the meeting. He especially thanked those who provided presentations at today's meeting to share advancements at Sanford Lab and also thanked the board for their support.

Dr. Rankin said he continues to be impressed by the professional nature of SDSTA.

Chairperson Peterson thanked everyone for their attendance.

ITEM 17. ADJOURN

Chairperson Peterson called for a motion to adjourn.

Motion by Mr. Wheeler and seconded by Mr. Musick to adjourn. Motion passed unanimously on a roll call vote.

Meeting adjourned at 10:33 AM.