

**South Dakota Science and Technology Authority Board of Directors**  
**Meeting Minutes**  
**Thursday, March 29, 2018**  
**Lead, South Dakota**

The Board of Directors of the South Dakota Science and Technology Authority (SDSTA) convened at 8:06AM Mountain Time (MT) on Thursday, March 29 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**

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

**MEMBERS OF THE BOARD ABSENT**

Dr. Ani Aprahamian

**SDSTA STAFF**

Mr. Tim Engel, Legal Counsel  
Ms. Nancy Geary, Chief Financial Officer  
Mr. Mike Headley, Executive Director  
Dr. Jaret Heise, Science Director  
Ms. Sharon Hemmingson, Business Services and Contracts Manager  
Mr. Larry Jaudon, Environment, Safety and Health Director  
Ms. Mandy Knight, Administrative Services Manager  
Mr. KC Russell, Cultural Diversity Coordinator

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

Dr. June Apaza, Education and Outreach Director (BHSU/joined by phone)  
Ms. Donna Job, Sanford Lab Homestake Visitor Center Executive Director  
Dr. Peggy Norris, Education and Outreach Deputy Director (BHSU)  
Mr. Alex Portal, Journalist for Black Hills Pioneer  
Dr. Ben Sayler, Sanford Science Education Center Director (BHSU/joined by phone)

**ITEM 1. CALL TO ORDER**

Vice-Chairperson Ron Wheeler called the meeting to order at 8:06 AM (MT). He announced that Chairperson Casey Peterson will be joining the meeting in person shortly and began the meeting. Roll call was held. Attendees present in person included Mr. Dana Dykhouse and Mr. Ron Wheeler; and by telephone included Mr. Paul Christen, Ms. Pat Lebrun, Dr. James Rankin and Dr. Robert Wilson. Dr. Ani Aprahamian was absent. Vice-Chairperson Wheeler declared that a quorum was present.

Vice-Chairperson Wheeler then asked audience members to introduce themselves.

## **ITEM 2. APPROVE AGENDA**

Vice-Chairperson Wheeler asked if there were any modifications to the agenda and hearing none asked for a motion to approve the agenda.

*Motion by Mr. Dykhouse and second by Mr. Christen to approve the agenda as presented. Motion passed unanimously on a roll call vote.*

## **ITEM 3. APPROVE MINUTES**

Vice-Chairperson Wheeler asked for any corrections to the Minutes of the December 14, 2017 meeting. There were none.

*Motion by Mr. Dykhouse and second by Ms. Lebrun to approve the Minutes of the December 14, 2017 meeting as presented. Motion passed unanimously on a roll call vote.*

*Chairperson Peterson joined the meeting in person at 8:09am.*

*Vice-Chairperson Wheeler yielded the chair to Chairperson Peterson.*

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

SDSTA Legal Counsel Mr. Tim Engel said as at several past meetings, this is a chance for any member of the board, who feels they have anything that might be construed to be a conflict of interest, to disclose it. Hearing none, Mr. Engel announced there are no conflict disclosures for this meeting.

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

Mr. Engel said there were no requests for waivers presented so there are none to act on today.

## **ITEM 6. CODE OF CONDUCT**

Mr. Engel said the Board of Internal Control has been working on a Code of Conduct for board members. Initially, they had adopted a resolution that the relevant provisions of the Bureau of Human Resources Code of Conduct should apply to Boards and Commissions. Based upon that resolution, SDSTA drafted a Code of Conduct that the SDSTA Board has adopted. The Board of Internal Control has been working on an updated Code of Conduct since then that may be more suitable for boards like this one. It has gone through several iterations. Mr. Engel said he had one concern with the most recent version and presented testimony about that concern at the March Board of Internal Control meeting. The Board of Internal Control did not take action at that time. If the proposed change is adopted, Mr. Engel said it will likely not result in any changes in SDSTA processes or procedures. He said he anticipates action on this subject at the June board meeting.

## **ITEM 7. 2018 LEGISLATIVE UPDATE**

Mr. Engel said SDSTA designated two lobbyists to keep an eye on legislation that could affect the SDSTA and, if necessary, testify. As usual, this year there was a hearing before the Joint Appropriations Committee. Mr. Headley provided a presentation remotely to the committee and it went well.

Mr. Engel said he watched a variety of bills over the course of the 2018 Legislative Session which included subject matters such as open meetings, Historic Preservation, and placing a moratorium on extraction on minerals in the Black Hills. He said there were two House Bills (HB) that could affect the SDSTA: HB1161—update to the International Building Code, and HB1172—require Boards and Commissions to allow time for public comment (where on the agenda and how much time is at the discretion of the Chairperson) both of which go into effect July 1, 2018. Mr. Engel noted a public comment item is included on today's SDSTA board agenda. He said Senate Bill (SB) 100, relating to federal grants, audits and disclosure of audits, will also have some impact on SDSTA. It requires audits

to be posted to a website and increases some document retention periods. Mr. Engel said he had discussed this earlier with SDSTA staff and concluded that it would not be problematic.

Chairperson Peterson asked what the extended retention period for documents is and Mr. Engel said he would confirm and update the board.

Chairperson Peterson asked if the board had any further questions. There were none.

## **ITEM 8. AUDIT COMMITTEE REPORT**

**ITEM 8A.** Ms. Lebrun said the board had received and discussed the Audit Report Fiscal Year Ended June 30, 2017 in detail at the December 14 meeting and said it is a clean report with no non-compliance and no discrepancies (no findings). She submitted the report for acceptance.

*Motion by Ms. Lebrun and second by Mr. Wheeler to accept the audit report fiscal year ended June 30, 2017 as presented. Motion passed unanimously on a roll call vote.*

Chairperson Peterson gave kudos to SDSTA Chief Financial Officer Ms. Nancy Geary and her team for their work.

**ITEM 8B.** Ms. Lebrun said this is a discussion as to whether or not the board should undertake an audit of the SDSTA internal control. It is not required, but the Audit Committee feels it prudent to have an audit so the SDSTA has a benchmark going forward. In the interest of being certain that the SDSTA is well within the parameters that it needs to be, she made a motion to request an internal control audit be completed sometime in the fiscal year.

Dr. Wilson asked how long an internal audit would take as well as the financial impact? Ms. Geary said she did not know the cost but the SDSTA's annual state audit cost is approximately \$13,000.

Ms. Geary requested the internal controls audit not start until after the annual state audit in the fall. Ms. Lebrun and Chairperson Peterson agreed that the SDSTA may have to hire an independent firm unrelated to the state audit.

Mr. Engel proposed a substitute motion for an audit to be completed by the end of FY2019, with a cost not to exceed \$10,000.

Ms. Lebrun asked the SDSTA to request estimates for the cost of the internal controls audit and Chairperson Peterson agreed. He asked if Ms. Lebrun would withdraw her original motion and she replied yes. Staff will provide cost estimates at the June meeting.

Dr. Wilson asked the impact this will have on SDSTA staff time and the value of the audit for the money being spent. Chairperson Peterson said the internal control audit will give the board suggestions on any lack of or weak controls SDSTA may have and provide a benchmark (especially with an increase in federal funds going forward); it will give assurance to outside parties that the SDSTA has done its due diligence. This type of audit is not something that is done every year.

Mr. Christen agreed and said the SDSTA absolutely needs to do this. He said the first audit will take the longest time. Ms. Lebrun concurred and said it is prudent to do this.

Chairperson Peterson thanked the Audit Committee for their work.

## **ITEM 9. FINANCIAL REPORT**

Ms. Geary began her report noting that since the last board meeting, the deep well pump lease and the asset have been removed from the Balance Sheet. She said at month-end, the SURF Services contract through Fermilab for Operations is slightly over budget due to payroll. She then asked if there were any questions on the February financials. There were none.

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

## **ITEM 10. REPORT FROM THE EXECUTIVE DIRECTOR**

### **ITEM 10A. SDSTA Update**

Mr. Headley said he would like to move items out of order in his report and request SDSTA Science Director Dr. Jaret Heise provide an update before discussing the Declaration of Surplus. Mr. Headley then proceeded with a slide presentation and discussed safety performance and said there was one recordable injury in the last six months. He said things are trending in a good direction and SDSTA is seeing fewer injuries onsite. He said new Environment, Safety and Health (ESH) Director Mr. Larry Jaudon has been with SDSTA for a few months now and is doing a wonderful job integrating the team.

He said the SDSTA is spending a great deal of time reorganizing and updating the ESH Manual and has put a lot of work into the chapters dealing with work planning and controls as well as facility access.

A site-wide safety inspection was recently completed jointly with Fermilab and 285 action items were generated. These items are being prioritized by size and cost and an implementation schedule will be generated.

Mr. Headley said the SDSTA has been working with Alaris, a company that provides occupational nurse and medical support; a full-time occupational nurse has been hired and will start on site in April.

Mr. Headley provided status updates on 1) Federal funding for FY2018 Appropriation—SURF \$15M, LBNF/DUNE \$95M, LZ \$14.1M, and he said the FY2019 President's budget request includes \$114M for the Long-Baseline Neutrino Facility/Deep Underground Neutrino Experiment (LBNF/DUNE). Mr. Wheeler interjected that he and Mr. Headley have planned a trip to Washington D.C. the end of April to discuss the FY2019 budget. Mr. Headley said it is clear that the support on the Hill has been tremendous and the work Mr. Ledford and his team are doing is great.

He then discussed 2) LBNF Construction—installing safety mechanism on the Ross cage, and Kiewit Alberici Joint Venture (KAJV) has been working with Fermilab on the pre-excavation work package. 3) LZ Construction—Davis Campus construction began in January and will be completed in May; xenon gas procurement remains on schedule (received 1,060k of 1,500K liters).

Mr. Wheeler asked if SDSTA has received all funds for xenon from the foundations? Ms. Geary replied no and said SDSTA is awaiting an April receipt of \$1M from the University of South Dakota Foundation. She said SDSTA does not need any funds at this time from the South Dakota State University (SDSU) Foundation.

Chairperson Peterson noticed on the operational budget that only 24% of the xenon has been delivered. Ms. Geary said the delivery is an intentional delay and will not impact the LZ project schedule. SDSTA Business Services Manager Ms. Sharon Hemmingson said she will provide the schedule to the board.

Mr. Headley said the Cultural Advisory Committee (CAC) met on February 28. The SDSTA received positive feedback from the committee in regard to the new Cultural Awareness video. It has been included as mandatory training for all employees, researchers, contractors and visitors.

He said Sanford Lab Homestake Visitor Center Executive Director Ms. Donna Job and the team have added Native American items for purchase and they have been a nice addition to the gift shop.

He said SDSTA Cultural Diversity Coordinator Mr. KC Russell has recruited Cheyenne River Sioux tribal member Adonnis Martinez, a civil engineering graduate at South Dakota School of Mines and Technology (SDSM&T), as a member of the CAC. Mr. Russell continues to be involved with

STARBASE and the West River program has successfully piloted a STARBASE 2.0 (for advance science education past the base 5<sup>th</sup> grade program of STARBASE).

In regard to Education and Outreach (E&O), Mr. Headley briefly discussed statistics relating to curriculum units, classroom presentations and field trips. He also showed a slide on recent student comments and said the feedback from others continue to be really strong. He said Dr. Apaza and the E&O team are doing a great job getting this information out to the state.

Mr. Headley said there are three curriculum units in the works: 1) “It’s Electric” is being piloted now, 2) “Argon-Transfer Challenge” will be released later this spring and 3) “As a Matter of Fact!” will be rolled out later this fall.

Mr. Wheeler complimented the E&O staff for the work they are doing and outreach to students across the state.

In regard to a previous question concerning the xenon delivery schedule, Ms. Sharon Hemmingson recited the following: FY2018/\$275,000, FY2019/\$1,925,000 and FY2020/\$220,000.

### **ITEM 10C. Science Update**

Next, Mr. Headley introduced SDSTA Science Director Dr. Jaret Heise who gave a slide presentation on current experiments. Dr. Heise provided an update on 1. MAJORANA DEMONSTRATOR (MJD)—Operations, Electroforming, Results (including the March 26 press release) and Future. 2. Large Underground Xenon-ZEPLIN (LZ)—General, Surface, Underground. 3. Compact Accelerator for Performing Astrophysical Research (CASPAR)—Commissioning and Operations. 4. Black Hills State University Underground Campus (BHUC)—General Operations, Berkeley Low Background Facility (manages several low-background counters and LZ SOLO), University of South Dakota/Alabama (Ge-IV), USD/University of North Carolina/SDSM&T (MALBEK); SENSEI (low mass dark matter experiment, not a low-background counter, but interested in locating at Sanford Underground Research Facility).

Dr. Heise concluded with selected other research efforts and gave an update on the following: State efforts to support research (new SD Governor’s Centers and NSF EPSCoR proposal have Sanford Underground Research Facility connection, SIGMA-V (project funded by DOE Enhanced Geothermal Systems based on KISMET-Permeability (k) and Induced Seismicity Management for Energy Technologies), GEOX (2000L, 4100L, 4850L), NASA Astrobiology Institute and other biology on the different levels underground (800L, 1700L, 2000L, 4100L, 4850L); Others.

### **ITEM 10B. Declarations of Surplus Property**

Mr. Headley said the declaration of surplus property is for three Tsurumi pumps that have failed, and the cost and repair exceeds the value of the pumps. This brand of pump is not the best choice going forward as SDSTA has had better reliability with a different brand of pump. Mr. Headley concluded his report.

Chairperson Peterson then requested a motion to accept the Executive Director’s report.

*Motion by Mr. Wheeler and second by Mr. Christen to accept the executive director’s report as presented. Motion passed unanimously by roll call vote.*

### **ITEM 11. NEW DESIGN OF THE SDSTA POLICIES AND PROCEDURES/EMPLOYEE HANDBOOK**

Mr. Headley said the SDSTA Policies and Procedures Manual has been redesigned and thanked Administrative Services Manager Ms. Mandy Knight and Creative Services Developer Mr. Matt Kapust for their time and effort towards the manual. Chairperson Peterson said he was impressed with the completeness of the manual and the professional look.

## **ITEM 12. UPDATE ON BUSINESS ADVISORY COUNCIL**

Mr. Wheeler said that a SDSTA Business Advisory Council was discussed over a year ago.

*Dr. Rankin left the meeting by phone at 9:15am.*

He reminded the board that the purpose of the council is to further economic development in South Dakota and during the last dialogue it was discussed that a group of high-level participants should be formed that will be able to define what opportunities for economic development exist during LBNF construction and operation. He said the primary players that will be able to define the suppliers, contractors and services required include Fermilab project management, the construction manager for LBNF and the experiment itself. He said Fermilab hired a logistics coordinator who began to work with contractors in the local area, but the coordinator was recently released from employment. Fermilab plans to backfill the position and the new logistics coordinator would be one of the members envisioned participating in a future business advisory council.

## **ITEM 13. EXECUTIVE SESSION**

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

*The board recessed at 9:17am for a break, followed by Executive Session and then reconvened at 10:37am.*

## **ITEM 14. REPORT FROM EXECUTIVE SESSION**

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

*Motion by Mr. Christen and second by Ms. Lebrun to approve the executive session report. Motion passed by a roll call vote of five in favor and none against.*

## **ITEM 15. EXECUTIVE COMPENSATION ADJUSTMENT**

Mr. Wheeler reported that the SDSTA Executive Director Headley's compensation has not been changed in a number of years while the rest of the SDSTA staff have received a 6% increase over the last three years. Mr. Headley clarified that staff received a 2% increase each year for the last three years. Mr. Wheeler said he would like to recommend a compensation adjustment.

*Motion by Vice-Chairperson Dykhouse and second by Mr. Christen to raise the SDSTA Executive Director's compensation by 3 percent, effective March 24, 2018 (the start of the payroll period). Motion passed unanimously by roll call vote.*

*Dr. Wilson rejoined the meeting by phone at 10:40am.*

Dr. Wilson said he was supportive of the increase and Mr. Headley has done a tremendous job. He said he hears the same thing about Mr. Headley when he visits Fermilab. Chairperson Peterson concurred.

Mr. Headley thanked the board. Mr. Wheeler stated that the Board will back Mr. Headley with decisions relating to SDSTA and Mr. Headley replied he appreciated their support.

## **ITEM 16. SELECT NOMINATING COMMITTEE**

Chairman Peterson said he had asked Dr. Aprahamian and Mr. Dykhouse to serve on the Nominating Committee again and they have agreed. Mr. Dykhouse said he will set up a teleconference with Dr. Aprahamian in May and have a slate ready for the June board meeting. Chairperson Peterson reminded the board that the annual election of officers will be held at the June meeting.

## **ITEM 17. CONFIRM 2018 BOARD SCHEDULE**

Chairperson Peterson asked if there were any concerns with the board meeting scheduled for Thursday, June 28, 2018 at 8:00 A.M. (MT). There were none.

## **ITEM 18. PUBLIC COMMENTS**

Chairperson Peterson asked if there were any questions or comments from the public. There were none.

## **ITEM 19. BOARD COMMENTS**

Dr. Wilson said this was another successful quarter for the lab. The FY2018 federal budget passing with strong support for LBNF/DUNE is great news and goes a long way with our international partners who have been concerned for some time about the U.S. delay in passing a budget.

Ms. Lebrun reiterated Dr. Wilson's comments and said this is a great project. Ms. Lebrun welcomed Dr. Rankin to the board and hopes he finds Sanford Lab interesting, informative and of high value not only to the country and state but to the SDSM&T. She also complimented the staff and thanked them for upgrading the technology for individuals that call in to meetings (a great improvement from a few years ago). Ms. Lebrun said she attended the Cultural Advisory Committee meeting last month and it is going well. She encouraged board members to watch the Cultural Awareness video as it is stunningly beautiful as well as informative. She thanked everyone and wished them a Happy Easter.

Mr. Christen said he is excited about the lab and happy about the federal budget passing. He said Mr. Headley and the SDSTA staff are doing a terrific job. He said Dr. Heise's presentation on current experiments at the lab is a good reminder of what is going on and he is pleased with all the activity. Mr. Christen said he is looking forward to seeing everyone in June.

Mr. Wheeler reiterated his earlier comments expressing his appreciation for Mr. Headley's great work as well as the entire staff. He also expressed his appreciation for all the work Mr. Engel is doing for the SDSTA.

Mr. Dykhouse said he also appreciated the science update by Dr. Heise. He said the audit of the SDSTA controls is appropriate and needs to be done. The SDSTA will continue to grow and it will give confidence to all parties involved. Lastly, he said there will be turnover this year with the Governor and several legislators that have been long-time supporters of Sanford Lab. We would be remiss if we didn't take every opportunity to educate those potential incoming legislators and gubernatorial candidates of what is going on at Sanford Lab and hopefully gain their support.

Mr. Headley thanked Ms. Knight for organizing and supporting the meeting as well recognized the great work of the SDSTA team. He recognized the board, Mr. Engel and Lewis-Burke Associates for all their support. He said the SDSTA has an amazing team and although there are challenges to get LBNF/DUNE off the ground, the SDSTA will and is doing absolutely all that they can to assist.

Mr. Tim Engel thanked the board for the kind words and the opportunity. He reiterated the appreciation from Mr. Headley and the SDSTA team and said the team is very responsive when he requests items and he tries to reciprocate.

Chairperson Peterson then asked Mr. Headley to write a letter of appreciation (perhaps preliminary) to thank Governor Dugaard and those outgoing legislators for their huge support. Mr. Headley said he would be happy to write a letter. Chairperson Peterson said "team SURF" is awesome and recognized them including Mr. Engel for their great work. He said he would like to write a letter to thank Mr. Ledford and his team for a huge gap that they helped bridge. In conclusion, he thanked Mr. Headley and Mr. Wheeler for their work.

**ITEM 15. ADJOURN**

Chairperson Peterson asked if anyone had any other questions or comments, then called for a motion to adjourn.

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

**Meeting adjourned at 10:50AM.**

DRAFT