ASME-HAWAII SECTION 2004 OUTSTANDING ACHIEVEMENT AWARD

This is the ninth year for the ASME-Hawaii Section annual Outstanding Project/Design Competition. The award was created in 1996 to give recognition to deserving mechanical engineering-type projects or designs in Hawaii, Guam, and American Samoa that have been completed within the past five years. A panel of independent judges base their selection on which project or design provides greatest benefits to owner and customer in economics, social, and environmental aspects and shows outstanding use of mechanical engineering principles.

For 2004 the award is made to the Pacific Biodiesel Plant on Sand Island. The Hawaii Fuel Cell Test Facility on Cooke Street is awarded the Meritorious Award. Both projects received high marks for design concept. One makes better commercial use of existing technology and is providing a major impact today while the other is cutting edge technology in alternate energy and may provide greater impact on society in the future. Both help or will help the environment in one way or another, and they deserve our recognition as outstanding mechanical engineering related projects in Hawaii.

Pacific Biodiesel Plant

Their website opens with “Renewable energy for a cleaner tomorrow.” Biodiesel is made from renewable fats and oils, such as vegetable oils, through a simple refining process. Actually Pacific Biodiesel produces biodiesel from used restaurant fryer oil. The process involves removing the glycerol molecule from vegetable oil in the form of glycerin (soap). Once the glycerin is removed from the oil, the remaining molecules are, to a diesel engine, similar to petroleum diesel fuel.

Biodiesel offers fleet operators a safe, cleaner alternative to regular old petroleum diesel fuel. It requires no engine modifications, and it delivers similar torque, horsepower and miles per gallon. In addition, biodiesel cuts down on targeted emissions. With a 20 percent blend with petroleum diesel and a catalytic converter, particulate matter is reduced 31 percent, carbon monoxide by 21 percent and total hydrocarbons by 47 percent. In addition, a blend reduces sulfur emissions and aromatics. In its neat form and in blends of 20 percent or more with petroleum diesel, the US Department of Energy has acknowledged biodiesel as an alternative fuel and can be used for vehicle credits under the Energy Policy Act.

The Sand Island plant was built in 2000. With its various tanks, pumps and other mechanical equipment, it has a capacity of 25,000 gallons per day of grease trap waste and 1500 gallons per day of biodiesel. The first Pacific Biodiesel Plant was built on Maui in 1996 as the answer to grave concerns over potential environmental and health problems resulting from restaurant grease clogging the Central Maui Landfill. Robert King, owner of King Diesel on Maui, who was contracted to maintain the generators at the Landfill, decided to do something about it.

Searching the Internet, he hooked up with Daryl Reece, Agricultural Engineer, who had helped develop the glycerin molecule from vegetable oil in the form of glycerin (soap). Biodiesel offers fleet operators a safe, cleaner alternative to regular old petroleum diesel fuel. It requires no engine modifications, and it delivers similar torque, horsepower and miles per gallon. In addition, biodiesel cuts down on targeted emissions. With a 20 percent blend with petroleum diesel and a catalytic converter, particulate matter is reduced 31 percent, carbon monoxide by 21 percent and total hydrocarbons by 47 percent. In addition, a blend reduces sulfur emissions and aromatics. In its neat form and in blends of 20 percent or more with petroleum diesel, the US Department of Energy has acknowledged biodiesel as an alternative fuel and can be used for vehicle credits under the Energy Policy Act.

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WILIKI MAILING LIST
Additions and/or corrections should indicate the proper society, institution or association.

LAVERN HIGA
Dept. of Design and Construction
City & County of Honolulu
650 S. King Street, 15th Floor
Honolulu, Hawaii 96813
Office: 808-527-6246
Fax: 808-527-6103

SAME awards $500 Savings Bond to John Vento

The Society of American Military Engineers awarded a $500 savings bond to John Louis Vento for his award winning entry in the 2004 Hawaii Science Fair. His entry titled, Groovy Airflow, tested drag on a series of airplane wings. John wanted to see whether or not there would be an increase or decrease in the distance of drag when he placed different sized dimples on the wing. His hypothesis was that the dimple size would be the shorter the distance would be between the trailing edge and the intersection smoke. In order to test his idea he researched airplane wings on the internet. He used his research to build a wind tunnel, construct wings out of Styrofoam, and then tested four wings with different sized dimples at four different angles (0, 10, 25 and 45 degrees). He used dry ice and warm water in his wind tunnel to create “smoke” to flow over each wing and then recorded the distance between the wing’s trailing edge and the intersection of “smoke” flowing over the wing. John Vento is a sophomore at Kauai High School.

June’s Meeting

CDR Bert Diehl spoke to us about the SAME national meeting. He briefed the Executive Director’s Report focusing on member statistics, post organization sizes, and status of reserve and special accounts. He also stated the SAME HQ accomplishments for 2003-2004.

July’s Meeting

Speaker: CPT Scott Miller
Date: Tue, 13 Jul 04
Time: 11:15 - 13:00
Location: TBD
RSVP 06 July to Maj Randy Whitecotton at Payment will be collected at the meeting.
EXECUTIVE BOARD MEETING
HIGHLIGHTS
May 13, 2004
Membership: 168 regular, 15 sustaining, 2 honorary, 5 life
Committee Chairpersons:
Aloha – Kendall Hee and Dennis Chong
EASLA Board – Randall Hashimoto
Education – Kendall Hee
Continuing Education for Re-licensure – Kendall Hee
E-mail – Kendall Hee
HCES – Erik Kaneshiro
Land Court – Pat Cummins
Legislative – Mary Cummins
Membership – Stacey Kimura
Newsletter/Editor – Dennis Chong
NSPS Board of Governors – Pat Cummins
Programs – Erik Kaneshiro
Public Relations – Pat Cummins and Dennis Yamasato
Standards – David Hatchell
Non-Profit/Incorporation – Kevin Kea
WESTFED – Pat Cummins
Workshops – Layton Nakao and Joanne Williamson
Annual Dinner Meeting (McCoy Pavilion) – Joanne Williamson
HALS 2004 Conference – Erik Kaneshiro, Chair
SPC NAD83 – Pat Cummins

Committee Reports:
Non-Profit/Incorporation – Kevin presented a letter from the law firm of Ishida & Nagaue LLC concerning incorporation. The Board will review and comment at the next meeting.
Workshops – Joanne reports on various workshops forthcoming. Mentioned workshops were AutoCAD featuring Felicic Provencal, Pat & Mary doing Land Titles & Case Law, GPS by Ed Carlson, State Plane Coordinates, EXCEL spreadsheets and Digital Photography.
Annual Dinner Meeting (McCoy Pavilion) – Joanne reports September 17, 2004, 5:00 p.m.–9:00 p.m. dinner at 6:00 p.m., speaker will be Paul Lucas at 7:00 p.m.
2005 Conference – Possible topics/speakers were mentioned. Eric Hee will follow up with potential speakers. HALS will extend invitation to NSPS President and Area Director.
NSPS Governor – Pat reported on the meeting held in Nashville, Tennessee this past April 17–18, 2004.
New Business
• HALS filing cabinet will be moved from State Survey.

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May Meeting Highlights
The May luncheon meeting was held on May 20, 2004 at the office of Belt Collins in Honolulu. The featured speaker was Lowell Chun, Chief of the Community Actions Plans Branch of the City and County of Honolulu, who spoke about the City’s update to the Primary Urban Center Plan. The plan, one of eight for the Island of Oahu, is a policy plan started in 1995 that outlines methods for intelligent growth for the primary urban center and is in line with the policies outlined in the General Plan for Oahu. The General Plan directs growth to two main areas on Oahu, the primary urban center and Ewa, in an attempt to maintain the rural areas. The primary urban center extends from Pearl City to Kahala and contains approximately half of the population on Oahu and three-quarters of the jobs. The plan for this area emphasizes enhanced livability, accommodations for moderate growth, support of neighborhood plans, evaluation of regulations and standards, and the provision of adequate support. The final draft of the plan dated May 2002 is currently in review by the City Council, after which the City hopes to initiate programs to implement the recommendation of the plan. These recommendations include the establishment of an urban growth boundary and generalized land use framework, enhancement of the urban landscape, provision of a range of housing choices, promotion of convenient travel choices, and development of attractive outdoor areas.

July Meeting Announcement
The July Section meeting date, location, and guest speaker will be announced at a later date. Meeting notices are forthcoming.

EAAUH Annual General Meeting:
The annual general meeting was held on June 30 at the Honolulu Country Club. Guest speaker Daniel Dinell, Executive Director of the Hawaii Community Development Authority, gave a talk about the redevelopment of Kaka’ako.

2004 EAAUH Golf Tournament:
The tournament will be held at the Pearl Country Club on Friday, July 30. Hope to see you there!
Volunteers are also needed. If you would like to help, please contact Matt Fujioka (mkf@akinaka.com) or Stacie Kaneshiro (Stacie.Kaneshiro@hickam.af.mil) for more information.

2003–2004 OFFICERS
Office Name Phone Fax
President Cathy Leong 946-2277 946-2253
Vice Pres Susan Uejo 521-5361 538-7819
Secretary Pierson Koike 527-6989 521-2501
Treasurer Fred Smoot 841-7617 833-6125
Past Pres Richelle Suzuki 541-2520 541-2700

PO Box 12204 Honolulu, HI 96828
website: www.eaauh.org

2003–2004 OFFICERS
Office Name Phone Fax
President Bryce T. Yonemura 473-8000 x2456
Vice Pres Kelli Goodin 441-3600
Secretary Ryan Sugamoto 956-3357
Treasurer Marian Nakamoto 836-1909 x234
Directors: Lloyd P.C.W. Lee
Michael Y. Magaoy
Randolph H. Murayama
Wayne H. Nakamura

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2003-2004 ASCE Hawaii Section Executive Committee

President:  Westley Chun  488-0477  488-3776  wccunch@ergscsl.com
Pres-Elect:  Kevin Niiya  533-3646  526-1267  kniiya@atawahawaii.com
Vice-Pres:  Walter Billingsley  846-3232  538-7819  wbillingsley@deltacollins.com
Secretary:  Lori Feng  531-7094  528-2368  lfong@ascehawaii.org
Treasurer:  Phillip Ooi  956-8512  956-5014  ooi@wilki.eng.hawaii.edu
Past Pres:  Horst Brandes  956-8969  956-5014  brandes@wilki.eng.hawaii.edu

JULY DINNER MEETING
Program:  Dave Penn, Ph.D., Total Maximum Daily Load (TMDL) Coordinator for the Department of Health’s Environmental Planning Office.

The TMDL process is one component of a multi-faceted watershed-based approach to water quality management. In watersheds where the receiving waters are not reaching State water quality goals, this process further defines water quality problems and recommends actions to improve water quality. One goal of these actions is to reduce pollutant loads to the extent that impaired receiving waters will eventually meet water quality standards. July will provide an overview of the EPA-mandated TMDL program in Hawaii, describe the current status of the program, and discuss results from the initial phase of the program for the Ala Wai Canal watershed.

Date:  Thursday, July 15, 2004
Location:  Treetops at Paradise Park
Manoa Valley
Time:  5:30 p.m. - Social Time
6:30 p.m. - Dinner
7:30 p.m. - Program
9:00 p.m. - Adjourn
Menu:  Multi-entree buffet
Cost:  $22.00 for Hawaii Section members
$25.00 for non-section members and guests
$11.00 for University of Hawaii at Manoa Student Chapter members

Please make check payable to “ASCE-Hawaii Section.” Mail to Phillip Ooi, ASCE Treasurer, c/o Department of Civil & Environmental Engineering, University of Hawaii at Manoa, 2540 Dole Street, Holmes 383, Honolulu, Hawaii 96822, postmarked by Monday, July 12, 2004. Reservations for the dinner meeting to Phillip Ooi by Monday, July 12, 2004, by phone at 956-8512, fax at 956-5014, or email at ooi@wilki.eng.hawaii.edu.

EXECUTIVE COMMITTEE MEETING
June 10, 2004

ASCE NATIONAL ANNUAL ELECTIONS

Information from the ASCE website: “ASCE’s annual election process is now underway. Ballots will be mailed with the June ASCE News. In order to improve election participation, we are now offering the ability to download a ballot as an alternative to the pre-printed ballot. All ballots must be received no later than August 13, 2004.

The two official nominees for President-Elect are Conrad G. Keyes, Jr., ScD, P.E., P.S., Hon.M. ASCE and Dennis R. Martenson, P.E., DEE, F.ASCE. In addition, two Zone Vice Presidents, six District Directors, and one International Director will be elected. The ballot includes a constitutional amendment to restructure the governance of ASCE. The proposed amendment seeks to add Institute and At-Large Directors to the Board, reduce the overall size of the Board and enable a regional structure. For more information, please visit www.asce.org. And don’t forget to vote!

ASCE HAWAII SECTION AWARDS

Please help us increase our scholarship endowment so that we can recognize those deserving students. We continue to accept tax-deductible donations with the goal of establishing a second annual scholarship. Make your check payable to ASCE Hawaii Section and mail to ASCE Scholarship Committee, P.O. Box 917, Honolulu, HI 96808. If you have any questions, please contact Horst Brandes at 956-8969, or at brandes@wilki.eng.hawaii.edu.

ASCE JOB LISTINGS

The following employers have openings they would like to fill:

- Austin Tsuchimi & Associates, Inc. (Civil, Traffic/Transportation, Environmental and Surveying - Honolulu)
- Board of Water Supply (Chief Capital Projects Officer - Honolulu)
- CH2MILL (Water Engineer - Honolulu)
- Engineering Solutions, Inc. (Civil/Environmental Engineers - Honolulu)
- Fewell Geotechnical Engineering (Geotechnical Engineer - Honolulu)
- Fukunaga & Associates (Civil and Environmental Engineers - Honolulu)
- Hawaii Pacific Engineers (Civil and Environmental Engineers - Honolulu)
- Hawaiian Engineers Engineering (Project and Civil Engineers - Wailuku)
- Westaf (Maintenance Engineering - Hickam AFB, Hawaii)
- Winzler & Kelly Consulting Engineers (Civil and Structural Engineering - Guam)

For more information on these job listings, please visit the ASCE Hawaii Section website at www.ascehawaii.org.

MEMBERSHIP DRIVE

ASCE counts on our members to help us grow every year by actively participating in the Member-Get-A-Member Drive. The drive is now year-round and offers great new prizes, such as cash rewards, gift certificates, digital cameras, personal digital assistants, LCD TVs and more. For most prizes, all you have to do to be eligible to win is refer a colleague. This is a great time to help out your colleagues while also helping ASCE find new members. Take a minute to think about the people in your professional life who could benefit from membership. Visit www.ASCEDrive.org to refer them and you could be a winner in the next drawing! Please contact our membership chair, Lori Nishida, at 533-3646 or lnishida@atawahawaii.com for further information.

Membership Renewal

From this month’s member data, ASCE has dropped any member not renewing their membership for fifteen (15) months. These members, who have not paid their 2003 dues, will no longer be included in our membership counts or on our membership data. This will greatly affect the standing of our Section, since standings are based on total membership. The total membership consists of new and retained members. If you have let your ASCE membership lapse and have not renewed, you may have been affected by this. Please contact our membership chair, Lori Nishida, at 533-3646 or lnishida@atawahawaii.com for further information.

CONVERTING TO ELECTRONIC VERSION OF WILIKI

If you would like to help the ASCE Hawaii Section reduce operating costs by receiving your monthly issue of the Wiliki via e-mail, please contact Joanna Seto at 522-7426 or e-mail her at jseto@ascehawaii.org.

Additional articles on page 8

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ACI CONCRETE FIELD TECHNICIAN PROGRAM - GRADE I CERTIFICATION

Sponsored by the Cement and Concrete Products Industry of Hawaii

The ACI Certification Program for Concrete Field Testing Technician—Grade I is for the purpose of certifying concrete technicians who have demonstrated the knowledge and ability to properly perform the seven (7) basic field ASTM tests on freshly mixed concrete.

**Session I Classroom Training and Practice Session:** Classroom training—Tuesday, August 10, and Thursday, August 12, 2004 from 4:00pm to 7:00pm at CCPI office, 2153 N. King Street, Suite 327, Honolulu, Hawaii.

**Performance practice session:** Saturday, August 14, 2004, from 8:00am to 12noon at Hawaiian Cement—Halawa, 99-1300 Halawa Valley Street, Aiea, Hawaii.

**Session II Examination only:** Saturday, August 21, 2004, from 7:00am to 12noon at Hawaiian Cement—Halawa, 99-1300 Halawa Valley Street, Aiea, Hawaii.

Session I: Registration is $175 per person and includes Classroom Training and Practice Session, ACI Technician Workbook and Manual. Session II: Examinations only. Full Exam (written/performance) $175. Re-take for written exam only $100, Re-take for performance only $125. Class size is limited to 15 people. Registration deadline is August 5, 2004.

For additional information or to register, call CCPI at 848-7100.

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Committee Reports:
HIGHLIGHTS OF BOD MEETING

This year’s convention will be held on Oahu at the Turtle Bay Resort. The theme for the convention will be “Earth, Wind, & Fire … Whichever Governs – Seismic & Wind Provisions of IBC 2003” and will feature two guest speakers, Mr. Don Scott and Mr. Steve Harris, as well as SEAOH member, Mr. Gary Chock. Mr. Scott will speak on the wind provisions of the IBC 2003 and Mr. Harris will speak on the seismic provisions of the IBC 2003. Members should have received flyers in the mail. Flyers may also be downloaded from the SEAOH website.

This year, the Convention Committee has budgeted funds for scholarships. If you’re interested in receiving a scholarship for this year’s convention, please contact Jonathan Muri at 533-2210 ext. 3952, Tom Tanimura at 536-7692, or email Tom Tanimura at stctan miracle.ongmura.com.

New Business:
Concrete Testing: Ibbotson Kellett and Wayne Kawano informed the BOD that the field technicians performing both the slump tests and preparation of cylinders at the jobsites may not be qualified. Ibbotson Kellett mentioned that some previously certified technicians have been observed for not performing these tests properly or in accordance with the ASTM guidelines. Both Ibbotson Kellett and Wayne Kawano recommended to the BOD that structural engineers need to address this issue by: 1) Stating in the contract documents that the technician shall be an ACI certified Grade I field technician. 2) Stating in the contract specifications that ACI certified personnel shall perform testing. 3) Enforce items 1 and 2 noted hereinbefore.

New Member Applications:
The following member applications have been received and open for comments from the membership:
Hongtai Qu - Englekirk Partners Consulting Structural Engineers, Inc., applied as an Allied member.
Saeid Pourjalali - KAI Hawaii, Inc., applied as an Allied member.
Paul Kane III - Aloha Marketing Manufacturers Representatives, LLC, applied as an Affiliate member.
Applications will be voted on at the July Board Meeting. Please notify any SEAOH Officer prior to the July Board Meeting if you wish to comment on these prospective members.

Website Notes:
New postings on the website 1) Annual convention flyer 2) Seminar of slab on grade shrinkage and curl flyer 3) Masonry design seminar with software demonstration flyer.

2004 Calendar of Events:
Next BOD meeting: 07 July 2004, 4:30 p.m., at Shigemura, Lau, Sakanashi, Higuchi office.
July 13, 2004: Masonry Design and Software Demonstration seminar at the Pagoda Hotel. Seminar and software overview by Russ Brown of Clemson University regarding masonry lintel, wall, and shearwall design.
August 2004: Time and place to be announced. Self compaction and jet grouting.
September 16, 2004: Joint ASCE and SEAOH meeting at Treetops Restaurant. Presentation of Blast Design/Force Protection by Steve Baldridge.

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the contributions of local mechanical engineering professionals in their field. Recognition goes to Dr. Lloyd Hihara, Professor of Mechanical Engineering and research engineer, at the University of Hawaii at Manoa, for his research work in corrosion as featured in the May 2004 article of the Malamalama magazine of the University of Hawaii.

The article, entitle “Fighting the Inevitable”, describes the research work that Dr. Hihara does as head of the Hawaii Corrosion Research Lab at Manoa. Because of his pioneering research work in metal matrix composites and corrosion, the Department of Defense, Northrop Grumman and others have funded $3.5 million dollars for the work over the last three years.

His work involves collecting corrosion data from expensive prototypes of communications wire made of metal matrix composites supplied by 3M, the makers of Scotchgard and other innovative products. The samples are placed in different locations around the island exposed to our corrosive environment. The data is electronically monitored every 30 minutes for a year. The data obtained will hopefully provide additional insight into how our naturally corrosive environment affects these samples placed in the field.

His research work has applications in all sectors of industries that mechanical engineers are involved with and has the potential to increase the performance and reliability of products manufactured in the future.

NEW UH ASME STUDENT SECTION OFFICERS

The ASME-HI Senior Section congratulates Jodi Ichimura, University of Hawaii ASME Student Section Chair, and her section officers for a job well done. Jodi graduated from the College of Engineering this past May and received her BS in mechanical engineering.

The new student section officers are as follows: Section Chair, David Katsuda; Vice Chair, Blake Sato; Secretary, Abel Siu; and Treasurer, David Narahara.

The senior section congratulates all the outgoing officers and welcomes the new officers as they work to promote the benefits of becoming a member of the American Society of Mechanical Engineers at the University of Hawaii at Manoa.

ASME-HI TEE SHIRTS

Chairman Ray Liu is working hard to procure Section tee shirts. He is currently waiting for a copy of the ASME logo in jpeg or tiff format; then he will solicit prices from local tee shirt vendors. Stay tuned for his progress.

ASME ONLINE MEMBERSHIP DIRECTORY

In response to an overwhelming number of requests from members asking for new tools to use in their work, the other members, ASME introduced the new ASME Online Membership Directory. This new online directory can only be accessed by ASME members and will be limited to 5 searches and 20 results per day.

To be included in the online directory, ASME requires members to “opt in.” If you do not register, you will be considered as an “opt-out,” you will not be included in the online directory. Please “opt-in” by visiting https://members.asme.org/myasme/membershipsearch/index.cfm.

FUTURE ACTIVITIES

Several tours and meeting speakers are being planned. Also visit the ASME-HI website for more information.


- Sept. 25, 2004, Kapaa Power Station Tour, at 10:00 a.m., hosted by Brad Rockwell, Kapaa Power Station Manager. The plant is located on the Island of Kauai. Please contact Ed Chang at 543-4227 if you would like to attend.
null
2003-2004 YMF OFFICERS

President  Jamie Hikiji
           hjikiji@ascehawaii.org

Vice-President Paulette Chang
           hawaiiymf@yahoo.com

Secretary Scott Jennings
           sjennings@rci-group.com

Treasurer Geoff Ries
           gries@wilsonokamoto.com

Stud Chap Ronald Malalis
           malalis@hawaii.edu

President Scott Jennings
           sjennings@rci-group.com

Next YMF General Meeting

The next two YMF general meetings are scheduled for Tuesday, July 6, 6:00 p.m., at M&E Pacific, Davies Pacific Center, 841 Bishop Street Suite 1900; and August 3, 6:00 p.m., at Brew Moon Restaurant and Micro Brewery in Ward Center, 593-0088. If you are interested in attending to find out what the YMF is all about and how much fun we have, please call Jamie Hikiji at 521-3051.

YMF Technical Presentation, July 6, 2004 at 6:30 p.m. - Jet Grouting Applications in Hawaii

Kelly McGonagle, as a representative of Hawaii's premier jet grouting specialty contractor, Layne GeoConstruction, will present successful applications of jet grouting within the state. Layne GeoConstruction has been successful in numerous applications of this procedure on Oahu including jet grouting for foundation support, groundwater control, and soil stabilization. As the prime contractor for Layne's largest project on the island, Scott Jennings with Robison Construction, will participate in the presentation providing the client's perspective as to the success of this grouting method at the Sand Island Wastewater Treatment Plant. The presentation will be held at M&E Pacific, Davies Pacific Center, 841 Bishop Street Suite 1900. Beverages and light pupus will be served. If you are interested in attending or for more information, please contact Jamie Hikiji at 521-3051.

YMF Field Trip, July 11, 2004 at 8 A.M. - Ka‘au Crater Hike

Please join us as Jeff Kalani leads us on a 3.5-4 hour hike of Ka‘au Crater on Sunday, July 11, 2004. Check-in is at 7:30 a.m. and the hike leaves promptly at 8:00 a.m. A map of the meeting location will be provided later. Lunch will be provided for the first 20 ASCE members to sign up. $5/person for lunch after the first 20 people and for those not in ASCE. Please bring your own drinks. Please email Jon Yoshinaga at yoshinaga@excite if you are interested in participating. You will have to fill out a liability waiver form during check-in at 7:30 a.m. Hope to see you all there!

YMF Community Service Project, July 31, 2004 at 8 A.M. – Storm Drain Stenciling

On Saturday, July 31, ASCE YMF will assist the City and County of Honolulu by stenciling storm drains for public awareness. Each year, thousands of gallons of household pollutants are washed down streets and storm drains that empty directly into reservoirs, streams and the surrounding ocean. The City & County of Honolulu tries to minimize such pollution by having volunteers stencil a warning on storm drains: “Dumps No Waste - Goes to Ocean.” If you would like to volunteer for this event, please email eric.deruyter@ttemi.com by July 26. We will be meeting a City representative at 8 a.m. at the makai corner of P‘ikoi Street and Ala Moana Boulevard for instructions. Please do not be late. The event will last approximately 2 hours. Afterwards (at 10 a.m.), all volunteers, friends, and members are invited to join the Hawaii YMF for a picnic at Ala Moana Park. Food, refreshments, and volleyball will be provided. Mark your calendars for July 31st and we’ll see you there!

FALL 2004 ASCE YMF PE EXAM REFRESHER COURSE

Dates: Saturdays, August 7, 2004 to October 9, 2004
Location: Davies Pacific Center Conference Room
841 Bishop Street, Suite 1401
Cost: $300 Early Registration Fee for ASCE Members (parking included)
$375 Early Registration Fee for Non-ASCE Members (parking included)

Early Registration Deadline is July 7, 2004. Add $25 late fee to registration fee if payment is postmarked or delivered after July 7, 2004. Class size is limited and registration is on a first-come first-served basis. Please verify room is available. Prices are subject to change after class begins.

This year’s ASCE YMF PE Refresher Course will cover the “breadth-and-depth format” of the civil engineering professional examination. This year’s lecturers are:

Structural Engineering
Mr. Ron Iwamoto, Iwamoto & Associates, LLC

Highway Geometry
Mr. Randall Urasaki, Parsons Brinckerhoff

Traffic Engineering
Mr. Wayne Yoshioaka, Parsons Brinckerhoff

Geotechnical Engineering
Dr. Phillip Ooi, University of Hawaii at Manoa

Environmental Engineering
Mr. Raj Rath, C&C of Honolulu, Dept of Design and Construction

Hydraulics/Hydrology
Mr. Raj Rath

In addition to copies of the lecture notes for each subject and study supplies, class attendees will receive a copy of Michael R. Lindenburg’s Civil Engineering Reference Manual for the PE Exam, 9th edition. Attendees will also have the option of ordering additional reference material at discounted prices.

To sign up for the Fall 2004 ASCE Hawaii Section YMF PE Refresher Course or if you have any questions, please contact Lorna Heller at 748-5944 or lheller@hbws.org.

ASCE Job Classified


KNOW YOUR ASCE HISTORY

by C.S. Papacosmas

Last month, I explained that at the 1893 World’s Columbian Exposition in Chicago, the Lehele and Misburg firm of Manske & Co. displayed a concrete statue of Germania. With help from Gregor Fischer of the University of Hawaii, I obtained a translation of several German narratives about the history of cement production in the vicinity of Hannover (“Hannover” in Germany from where the aforementioned towns are located.

A cement-manufacturing expert by the name of Hermann Manske severed his employment with the first cement plant in the area to establish a competing enterprise in 1881. Other local competitors soon sprang up but by 1905, “Germania” was making 5% of the total cement production in all of Germany. Among its overseas customers were the Kohala Ditch Company and, also, “The Coal, Cement and Supply Co.” of Wilmington, North Carolina. A 1902 local Chamber of Commerce publication explains that “they handle the ‘Giant’ brand of Portland Cement, manufactured by the American Cement Company of Philadelphia, ‘Germania’ imported cement from Germany, the ‘Union’ Rosendale cement, made in Philadelphia, all high grade products…”

About the Kohala Ditch, a June 3 article in the Commercial Pacific Advertiser says:

“Mr. Renear, father of Dan Renear the swimmer, returned from Kohala yesterday on the Kinaiu, having finished work on the Kohala ditch. Mr. Renear went to Hawaii last September to do the cement lining for the ditch. He states that water was to have been turned into the ditch yesterday for a test.” The test was successfully run and the ditch, which the Hawaiian Star described as “a great feat of engineering,” was officially opened on June 11, 1906. Undoubtedly, Mr. Renear handled the “A-1 imported Alsen and Germania brands” of cement specified by the ditch’s engineer, M. M. O’Shaughnessy.

By that time, the global availability and cost of cement were severely impacted by the April 18, 1906 Great San Francisco Earthquake and the subsequent reconstruction activities there. Following are some effects on the Territory of Hawaii:

Several trade publications tell us that the Davenport cement plant being built in Santa Cruz County in 1906 “to supply the Panama Canal and satisfy the demand created by the US Navy’s construction of Pearl Harbor” became a major cement supplier to the Bay Area recovery effort instead.

In response to the local shortages, cement was also brought into the territory from Asia. For example, the July 27, 1906 issue of the Hawaiian Star states that “[a] large consignment of cement arrived by the S. S. Manchuria yesterday. The consignment came to H. Hackfeld & Company… from Hongkong. The consignment consisted of 2500 barrels. The shortage of cement in the islands was the cause of the shipment. There has been a shortage here for months. Several steamers ago Hackfeld & Company received a special shipment of cement and by the Manchuria another shipment arrived. The vessel carried no shipment of cement for San Francisco; however, although there is a big demand for cement in the reconstruction of San Francisco.”

(continued on page 9)
ASME Award, (continued from page 1)

op a method to process discarded cooking oil into clean-burning fuel for diesel engines. With no outside financial assistance, King and Reece formed Pacific Biodiesel, Inc. and built the first biodiesel plant in the Pacific Rim.

Hawaii Fuel Cell Test Facility

Fuel cells along with thermal, ocean, wind and solar power are the hopes for the future to help Hawaii reduce its dependency on fossil fuel. A fuel cell produces electricity through the electrochemical reaction of hydrogen and oxygen, without combustion. It operates like a battery, but does not rundown or require recharging. Its only byproduct is water.

The Hawaii Fuel Cell Test Facility, a state-of-the-art research facility opened for business in April 2003 to study ways to make fuel cell technology more commercially practical. This facility is a partnership of the Hawaii Natural Energy Institute (HNEI) of the University of Hawaii, Office of Naval Research (ONR), UTC Fuel Cells, and Hawaiian Electric Co., Inc.

The test facility has three full size single cell test stands with space for up to eight test stands. The test stands enable researchers to see what fuel cells can do under a variety of operating conditions. At the test facility, they scrutinize how fuel cells stand up to long-term operation, investigate the cells’ sensitivity to impurities in the fuel source, delve into the lifetime of components, examine the optimum water management requirements, and run the cells through a host of tests to determine how dependable they can be. The test stands were purchased from the UTC Fuel Cells.

The Hawaii Fuel Cell Test Facility is part of the HNEI fuel cell program under the direction of Rick Rocheleau, Director of HNEI. The current testing activities focus on Proton Exchange Membrane (PEM) fuel cells which have a lower operating temperature than other types of cells and are therefore of interest for automotive and consumer applications. Other activities under this ONR-funded program include development of biocatalysts for fuel cells, use of bio-carbons for fuel cell and fuel cell components, and the exploration and characterization of methane hydrates as a future fuel.

In June 2003, HNEI hosted a tour of the test facility for a group of ASME Fluids Engineering Conference attendees. The ASME members might find interesting? Please send a brief description to C.S. Papacostas (fax 956-5014, email csp@wiliki.eng.hawaii.edu).

Previous articles in the series may be found at http://www.ascehawaii.org.

ASCE History, (continued from page 8)

Incidentally, Hackfeld’s Dry Goods was established in 1849, renamed H. Hackfeld & Co. in 1898, became Liberty House in 1918 and, under the ownership of the Federated Department Stores Inc. of Cincinnati since 2001, is now known as Macy’s.

As for the so-called “oriental cement” I am all but convinced that it was actually produced in Macau (or Macao) and transshipped via Hong Kong to Hawaii. A cement plant was founded in 1887 on Green Island (Ilha Verde in Portuguese, Tsing Chau or Qingzhou in Chinese). At the time, Green Island was connected to the Macau peninsula by a causeway but, due to land reclamation, was absorbed into the peninsula by the early 1920s. Next: the first production of portland cement in Hawaii. Do you know of a civil engineering accomplishment or event that your fellow ASCE members might find interesting? Please send a brief description to C.S. Papacostas (fax 956-5014, email csp@wiliki.eng.hawaii.edu). Previous articles in the series may be found on the Section’s web site. Just point your browser to http://www.ascehawaii.org.

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