

ACRS-1691

MEETING DATE: 11/14/79
ISSUE DATE: 4/15/80

5/1/80

MINUTES OF THE ACRS SUBCOMMITTEE MEETING ON THE GENERAL ELECTRIC TEST REACTOR
BURLINGAME, CA

The ACRS Subcommittee on the General Electric Test Reactor (GETR) met on November 14, 1979 at the Marina Hotel in Burlingame, CA to review the geologic and seismologic aspects of the GETR site.

Requests for oral presentations were received from Mrs. Helen Hubbard and Mr. Andrew Baldwin.

Selected handouts are attached to these minutes. A complete set of handouts received at the meeting is on file with the Office Copy of the minutes.

Dr. W. Kerr, Chairman of the Subcommittee, opened the meeting and introduced Drs. Mark and Okrent as members of the Subcommittee and Drs. Philbrick, Thompson, Maxwell, Pomeroy, Pickel, and White as Subcommittee consultants.

GENERAL ELECTRIC COMPANY PRESENTATION

Mr. R. Darmitzel, Manager of the Irradiation Processing Operation, Nuclear Engineering Division, at the Vallecitos nuclear site, was the spokesman for the General Electric Company. In his introductory statement, Mr. Darmitzel stated that after extensive geological investigations and supporting studies during the past two years, "GE disagrees with the Staff's position regarding the origin of the features observed at the base of the hills near GETR and with their assesment of faulting and landsliding hazards at the site.

Mr. Darmitzel summarized GE's position regarding the geologic and seismologic aspects of the site:

1. The origin of the low-angle shear-like structures observed at the GETR site cannot be absolutely determined. However, GE's consultants and the California Division of Mines and Geology (CDMG) believe the most probable origin is large-scale landsliding. The postulation of a tectonic origin conflicts with the observed physical evidence.

THIS DOCUMENT CONTAINS
POOR QUALITY PAGES

2. Evidence shows that the postulated Verona Fault does not connect with any faults to the northwest or to the east, limiting the length of the fault to about 8 km.
3. No surface displacement or offset has occurred in the vicinity of the Vallecitos site in the past 800 years. A maximum offset of three feet has occurred at one point in the site in the past 10-20,000 years.
4. No offset was observed on any plane which, if extended, would break the surface beneath the GETR plant. Faulting has not occurred in the foundation area of the reactor for at least 128-195,000 years.
5. The probability of any future offset of any size occurring at the foundation of the GETR site is calculated conservatively to be less than 10^{-6} per year.
6. Measurements indicate that the average rate of strain relief over at least the last 70-125,000 years is extremely low, about two-thousandths of an inch per year. This rate is at least two orders of magnitude lower than for a system such as the San Fernando Fault, and comparison of the tectonic structure of the San Fernando Fault system to the postulated Verona Fault system indicates that its use as a model is not applicable.
7. The 2.5 meters of surface offset proposed by the Staff cannot be generated by a minor fault such as the Verona Fault. One meter of offset on the observed shears is a conservative value.
8. A ground acceleration of 0.56g associated with a 7.5 Richter magnitude earthquake on the Calaveras Fault is a conservative value. For the sake of expediting the review of GETR, an 0.80g horizontal ground acceleration value was used to evaluate the GETR structures and systems.

Mr. R. Harding of Earth Sciences Associates (ESA) next gave a brief description of the scope of the geological investigation, which included the items listed below:

- A review of literature available, published and unpublished, including reports of private consultants, oil well data, water well data, and geophysical data was made.
- Aerial photo interpretation was performed which included examination of at least six sets of black and white stereo pairs, one set of color stereo pairs, and one high altitude color IR set.

- Aerial reconnaissance was conducted by taking overflights of the area and shooting pictures on several occasions in different seasons of the year at different times of day including times of low sun angle.
- Detailed field mapping was conducted around the GETR site and at selected locations throughout the Livermore Valley looking at outcrops of significant features.
- Subsurface exploration included over two miles of trench excavations.
- Soil stratigraphic studies were conducted in order to determine the age of the soils at the site.
- Geophysical studies performed included seismic refraction surveys, high-resolution shallow seismic reflection surveys and shear wave velocity measurements.
- Engineering studies were performed to determine slope stability and liquefaction potential of the GETR foundation area.
- Groundwater studies were performed that included mapping of springs and wells. Water levels as well as water quality studies were made.

Mr. D. Hamilton of ESA discussed the regional geologic and tectonic features of the GETR site. Highlights of his presentation are summarized below:

- The faults, folds, and rock units are predominantly northwest-trending structures.
- The regional stress pattern -- right transform shear -- corresponds to a north-south compression.
- The geologic, geophysical and well data indicate that the Livermore Valley has been a subsiding basin since at least Pliocene.
- The Los Positos Fault is a relatively minor cross-structure in the southeast corner of Livermore Valley.
- There is no evidence to extend the Los Positos Fault to the southwest across Livermore Fault.

Mr. D. Yadon of ESA discussed the site geology. The initial Phase I Geologic investigation mapped the Verona Fault and associated photo lineaments. The work included review of the existing literature, photo interpretation of the associated lineaments, and limited trenching.

The conclusions of the Phase I investigation are listed below:

- The Livermore gravels consist of three distinct mappable units.
- Stratigraphic relationships preclude post-Livermore gravels faulting through Foley No. 1 well.
- Unbroken QT_{1gm} limits extension of mapped fault traces along strike to SE.
- Evidence sited for NW end of Verona Fault more readily explained by other geologic conditions.
- Postulation of faulting from hill front to NE constrained to narrow gap in Highway 84 pass area.

The NRC reviewed the Phase I work and requested additional investigations. This additional work is listed below.

- Determine the NW end of the mapped Verona Fault.
- Interpret the photolineaments/well spots southwest of GETR.
- Determine the character and limits of the ancient landslide complex.

The results of the NRC requested investigation are listed below.

- Found unfaulted stratigraphic sequence of Livermore gravels across mapped trace of Verona Fault.
- Determined previously unmapped fault in the pass area.
 - Strikes N65-70°W, dips 70-75°NE
 - Last movement predominantly strike-slip
 - Component of apparent East-down offset
- Found two additional low-angle shears in Vallecitos Valley SW of GETR.
- Found several high-angle tensional breaks of indeterminate offset in Vallecitos Hills.

Mr. R. J. Shlemon of Roy J. Shlemon and Associates, next discussed soil stratigraphy and age dating. A summary of his presentation is listed below.

- The presence of quaternary markers were found in a) widespread limestones and b) regional, distinctive buried paleosol.
- The age of the markers indicates that a) the last stoneline/colluvium/modern solum is less than 20,000 years, b) there is a strongly developed paleosol of about 70,000-125,000 BP, c) multiple buried paleosols were found in trench H, and d) the last displacement occurred about 125,000 years ago at GETR.
- Displacement of markers indicates a) multiple movements of some slip surfaces, b) maximum displacement of about 3 ft.; early Holocene, and c) maximum displacement of about 12 ft.; 70,000-125,000 years BP paleosols.

Mr. R. C. Harding next presented the geologic investigation conclusions. They are as listed below.

1. Landslide Origin

- There is no conflict with regional tectonic setting.
- The number, attitude, and character of the features are consistent with relationships expected in large landslide complex.
- The age of the landscape is sufficient to allow significant erosion of headscarp.
- Pleistocene landslides are common in California.
- The renewed movements of Pleistocene landslides resulting from seismic events are common.

2. Thrust Fault Origin

- Thrust fault is difficult to fit into the given geologic setting.
- The directions of slip on shears are inconsistent with regional tectonic setting.

3. Conclusion on Origin of Shears

- From the investigation, landslide is the most reasonable, if not conclusive interpretation.

4. Summary of Conclusions

- Ancient landslide is the most reasonable origin of shears at the GETR site.
- To be conservative, a tectonic origin is assumed.
- Based on observed geologic data, the assumed fault zone has the following characteristics:
 - Length about 8 kilometers
 - Maximum expected offset about one meter
 - Future offsets most likely to occur on existing shears.

Mr. J. R. Benjamin of Jack R. Benjamin, Inc., discussed the application of probability methods in predicting offsets at the GETR site. He stated that the probability of a new offset intersecting an existing structure can be reliably forecasted based on available methods.

Mr. J. W. Reed of Jack R. Benjamin, Inc., presented a detailed discussion of probabilistic analysis of surface rupture offset beneath the GETR reactor building. The calculated probability of occurrence of a future surface rupture beneath the reactor building foundation is less than $10^{-6}/\text{yr}$. He believes the probabilistic analysis is conservative. He concludes, based on NRC's practice that events with probability less than $10^{-6}/\text{yr}$. need not be considered, that surface rupture offset should not be treated as a design basis event.

The Subcommittee suggested that the NRC Staff review the probabilistic analysis of the GETR site.

The Staff's conclusion on surface offset made use of work by Slemmons, in 1977. Data obtained by Slemmons lead to a prediction that a fault length of 12-15 kilometers will produce an offset of 2-3 meters.

The Staff feels that the acceleration of 0.56g proposed by GE is low and that a value of 0.8 to 1.0g should be used. GE stated that 0.8g will be used for expediency.

The Subcommittee meeting was adjourned at 6:30 p.m.

NOTE: A complete transcript of the open sessions of this meeting is on file in the NRC Public Document Room at 1717 H Street, NW, Washington, DC or can be obtained from Ace Federal Reporters, 444 North Capitol Street, NW, Washington, DC.

ments received will be available for public inspection with the application for exemption at the address set forth above.

Proposed Exemption

Based on the facts and representations set forth in the application, the Department is considering granting the requested exemption under the authority of section 408(a) of the Act and section 4975(c)(2) of the Code and in accordance with the procedures set forth in ERISA Procedure 75-1 (40 FR 18471, April 28, 1975). If the exemption is granted, the restrictions of sections 406(a), 406(b)(1) and 406(b)(2) of the Act and the taxes imposed by section 4975 (a) and (b) of the Code, by reason of section 4975(c)(1) (A) through (E) of the Code shall not apply to the sale of a citrus grove, not to include the growing crop, legally described as Lots 22 and 23 of Lakeview Heights, Orange County, Florida, by the Plan to Dill Properties for cash consideration of \$60,500 provided that this amount is not less than the fair market value of the time of sale.

The proposed exemption, if granted, will be subject to the express conditions that the material facts and representations contained in the application are true and complete, and that the application accurately describes all material terms of the transaction to be consummated pursuant to the exemption.

Signed at Washington, D.C., this 18th day of October 1979.

Ian D. Lanoff,
Administrator, Pension and Welfare Benefit Programs, Labor-Management Services Administration, U.S. Department of Labor.
[FR Doc. 79-33322 Filed 10-29-79; 8:45 am]
BILLING CODE 4810-28-M

Dated: October 24, 1979.
Russell Ritchie,
Deputy Associate Administrator for External Relations.
[FR Doc. 79-33004 Filed 10-28-79; 2:45 am]
BILLING CODE 7510-01-M

[Notice (79-88)]

NASA Advisory Council (NAC), Space and Terrestrial Applications Advisory Committee (STAAC); Meeting

The *Ad Hoc* Informal Advisory Subcommittee on Geodynamics and Geology of the NAC-STAAC will meet on November 27 and 28, 1979 at the Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, CA 91103 in Building No. 180, Room No. 101. The meeting will be open to the public. Members of the public will be admitted to the meeting on both days on a first-come, first-served basis and will be required to sign a visitors' register. The seating capacity of the meeting room is for 80 persons.

This Subcommittee, chaired by Dr. Michael Chinnery, is comprised of twelve members of the NAC-STAAC and will review and discuss status of both the Geodynamics and the Non-Renewable Resources Programs including various specific activities within these programs as indicated in the approved agenda below:

November 27, 1979

- Time and topic*
- 9:00 a.m.—Chairperson's Remarks.
 - 9:30 a.m.—NASA's Response to Subcommittee's Concerns.
 - 10:00 a.m. Geodynamics Program Status.
 - 10:45 a.m. Crustal Dynamics Project: Site Locations.
 - 11:45 a.m. Mobile Very Long Baseline Interferometer (VLBI) Plans and Status.
 - 1:30 p.m. Non-Renewable Resources Program Status.
 - 2:30 p.m. Scientific Applications of Stereosat.
 - 3:15 p.m. Status of Planning for the Earth Resources Synthetic Aperture Radar System.
 - 4:00 p.m. Tour of Mobile VLBI Facilities.
 - 5:00 p.m. Adjourn.

November 28, 1979

- 8:30 a.m.—Overview of JPL Activities in the Non-Renewable Resources Program.
- 9:15 a.m.—Current Research in Thermal Infrared Remote Sensing Techniques.
- 10:15 a.m.—History and Results of the Joint NASA/GEOSAT Test Case Project.
- 1:00 p.m.—Subcommittee Discussion on Program Activities and Future Plans.

3:00 p.m.—Chairman's Summary of Conclusions and Findings of the Subcommittee.
3:15 p.m.—Adjourn.

Note.—Arrangements have been made for a briefing on the status and summary of Voyager 2 results for those members and attendees who are interested.

For further information regarding the meeting, please contact Louis B. C. Fong, Executive Secretary of the Subcommittee, Washington, D.C. (202) 755-7450.

Russell Ritchie,
Deputy Associate Administrator for External Relations.
October 22, 1979.
[FR Doc. 79-33328 Filed 10-29-79; 8:45 am]
BILLING CODE 7510-01-M

NUCLEAR REGULATORY COMMISSION

Advisory Committee on Reactor Safeguards, Subcommittee on the General Electric Test Reactor (GETR); Meeting

The ACRS Subcommittee on the General Electric Test Reactor (GETR) will hold a meeting on November 14, 1979 at the Airport Marina Hotel, 1380 Bay Shore Boulevard, San Francisco, CA to discuss seismic design requirements that may be imposed as a result of recent geologic investigation. Notice of this meeting was published October 18, 1979 (44 FR 60178).

In accordance with the procedures outlined in the Federal Register on October 1, 1979, (44 FR 56406), oral or written statements may be presented by members of the public, recordings will be permitted only during those portions of the meeting when a transcript is being kept, and questions may be asked only by members of the Subcommittee, its consultants, and Staff. Persons desiring to make oral statements should notify the Designated Federal Employee as far in advance as practicable so that appropriate arrangements can be made to allow the necessary time during the meeting for such statements.

The agenda for subject meeting shall be as follows: *Wednesday, November 14, 1979, 8:30 a.m. until the conclusion of business.*

The Subcommittee may meet in Executive Session, with any of its consultants who may be present, to explore and exchange their preliminary opinions regarding matters which should be considered during the meeting and to formulate a report and recommendations to the full Committee.

At the conclusion of the Executive Session, the Subcommittee will hear

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NASA Advisory Council (NAC), Space Systems and Technology Advisory Committee; Postponed Meeting

The November 1, 1979 meeting of the Informal Executive Subcommittee of the Space Systems and Technology Advisory Committee has been postponed until mid-December.

Notice of this meeting was published in the Federal Register as NASA Notice 79-84 on Friday, October 12, 1979, page 59021, FR Doc. 79-31478.

For further information, please contact Mr. C. Robert Nysmith, Executive Secretary (202) 755-3252, NASA Headquarters, Code RP-4, Washington, DC 20546.

presentations by and hold discussions with representatives of the NRC Staff, the General Electric Company, and their consultants, pertinent to the above topics. The Subcommittee may then caucus to determine whether the matters identified in the initial session have been adequately covered and whether the project is ready for review by the full Committee.

In addition, it may be necessary for the Subcommittee to hold one or more closed sessions for the purpose of exploring matters involving proprietary information. I have determined, in accordance with Subsection 10(d) of Public Law 92-463, that, should such sessions be required, it is necessary to close these sessions to protect proprietary information (5 U.S.C. 552b(c)(4)).

Further information regarding topics to be discussed, whether the meeting has been cancelled or rescheduled, the Chairman's ruling on requests for the opportunity to present oral statements and the time allotted therefore can be obtained by a prepaid telephone call to the Designated Federal Employee for this meeting, Mr. Elpidio G. Igne (telephone 202/634-3314) between 8:15 a.m. and 5:00 p.m., EST.

Dated: October 23, 1979.

John C. Hoyle,

Advisory Committee Management Officer.

(FR Doc. 79-33291 Filed 10-29-79 8:45 am)

BILLING CODE 7580-01-M

SMALL BUSINESS ADMINISTRATION

(License No. 05/05-5089)

Chicago Community Ventures, Inc.; Filing of Application for Approval of Conflict of Interest Transaction Between Associates

Notice is hereby given that Chicago Community Ventures, Inc. (CCVI), 19 South La Salle Street, Chicago, Illinois 60603, a Federal licensee under Section 301(d) of the Small Business Investment Act of 1958, as amended (15 U.S.C. 661 *et seq.*), has filed an application pursuant to 13 CFR 107.1004 (1979) for approval of a conflict of interest transaction.

CCVI was licensed by the Small Business Administration (SBA) on June 14, 1972. The licensee's voting stock is owned by 17 large Chicago-based businesses.

CCVI is currently considering financing Peter Carlton Enterprises, Ltd., engaged in establishing a chain of "Popeyes Famous Fried Chicken" fast food restaurants, by purchasing \$100,000 of the preferred stock of Peter Carlton

Enterprises, Ltd. Mr. William C. Goodall is an officer, director, and holder of 52 percent of the common stock of Peter Carlton Enterprises, Ltd. Mr. Goodall is also a director of CCVI.

The proposed transaction falls within the purview of Section 107.1104 by reason of fact that Mr. Goodall is an associate of the licensee through his dual directorships.

Notice is hereby given that any interested person may submit to SBA written comments, no later than 15 days from the date of publication of this notice, on this proposed financing. Any such communication should be addressed to: Acting Associate Administrator for Finance and Investment, Small Business Administration, 1441 L Street, N.W., Washington, D.C. 20416.

A copy of this notice shall be published by the licensee in a newspaper of general circulation in Chicago, Illinois.

(Catalog of Federal Domestic Assistance Program No. 59.011, Small Business Investment Companies)

Dated: October 22, 1979.

Peter F. McNeish,

Acting Associate Administrator for Finance and Investment.

(FR Doc. 79-33548 Filed 10-29-79 8:45 am)

BILLING CODE 8025-01-M

(Proposed License No. 08/08-5052)

Colorado Equity Capital Corp.; Application for License To Operate as a Small Business Investment Company

An application for a license to operate as a small business investment company under the provisions of Section 301(d) of the Small Business Investment Act of 1958, as amended (15 U.S.C. 661 *et seq.*), has been filed by Colorado Equity Capital Corporation (applicant), with the Small Business Administration (SBA), pursuant to 13 CFR 107.102 (1979).

The officers, directors and stockholders of the applicant are as follows:

Edward R. Lucero, 10370 W. 18th Place, Lakewood, Colorado 80215, President, Director, General Manager, 100 percent Stockholder.

James R. Krendl, 1121 Humboldt, Denver, Colorado 80218, Secretary-Treasurer, Director.

Roger C. Cohen, 4949 South Birch Street, Littleton, Colorado 80121, Director.

The applicant, a Colorado corporation with its principal place of business located at 2000 Arapahoe Street, Denver, Colorado 80202, will begin operations with \$500,000 of paid-in capital and paid-in surplus derived from

the sale of 8,000 shares of common stock.

The applicant will conduct its activities primarily in the State of Colorado.

Applicant intends to provide assistance to all qualified socially or economically disadvantaged small business concerns as the opportunity to profitably assist such concerns is presented.

As a small business investment company under Section 301(d) of the Act, the applicant has been organized and chartered solely for the purpose of performing the functions and conducting the activities contemplated under the Small Business Investment Act of 1958, as amended, from time to time, and will provide assistance solely to small business concerns which will contribute to a well-balanced national economy by facilitating ownership in such concerns by persons whose participation in the free enterprise system is hampered because of social or economic disadvantages.

Matters involved in SBA's consideration of the applicant include the general business reputation and character of the proposed owners and management, and the probability of successful operations of the applicant under this management, including adequate profitability and financial soundness, in accordance with the Small Business Investment Act and the SBA Rules and Regulations.

Notice is hereby given that any person may, not later than 15 days from the date of publication of this notice, submit to SBA written comments on the proposed applicant. Any such communication should be addressed to the Acting Associate Administrator for Finance and Investment, Small Business Administration, 1441 L Street, N.W., Washington, D.C. 20416.

A copy of this notice shall be published in a newspaper of general circulation in Denver, Colorado.

(Catalog of Federal Domestic Assistance Program No. 59.011, Small Business Investment Companies)

Peter F. McNeish,

Deputy Associate Administrator for Finance and Investment.

(FR Doc. 79-33551 Filed 10-29-79 8:45 am)

BILLING CODE 8025-01-M

(Declaration of Disaster Loan Area No. 1719)

Illinois; Declaration of Disaster Loan Area

White County and adjacent counties within the State of Illinois constitute a

TENTATIVE SCHEDULE

ACRS SUBCOMMITTEE MEETING ON THE GENERAL ELECTRIC TEST REACTOR (GETR)
SAN FRANCISCO, CA
NOVEMBER 14, 1979

	<u>APPROXIMATE TIME</u>
I. EXECUTIVE SESSION (OPEN)	8:30 a.m.
II. PRESENTATION BY GENERAL ELECTRIC	
A. Introduction - R. W. Darmitzel, Manager, GE	9:00 a.m.
B. Geologic Investigation Results	9:15 a.m.
BREAK	11:00 a.m. - 11:15 a.m.
C. Soil Stratigraphy	12:15 p.m.
LUNCH	1:15 p.m. - 2:15 p.m.
D. Geology Overview	2:15 p.m.
E. Probability Risk Assessment for Surface Offset	3:00 p.m.
BREAK	4:00 p.m. - 4:15 p.m.
III. PRESENTATION BY NRC STAFF & CONSULTANTS	
A. Introduction - C. Nelson, Licensing Project Manager, NRC	4:15 p.m.
B. Geologic & Seismologic Summary	4:30 p.m.
C. U.S. Geologic Survey	5:00 p.m.
D. Univ. of Nevada	5:30 p.m.
IV. EXECUTIVE SESSION (OPEN)	6:00 p.m.
V. CAUCUS WITH NRC STAFF AND GENERAL ELECTRIC	6:30 p.m.
VI. ADJOURNMENT	7:00 p.m.

ACRS SUBCOMMITTEE MEETING ON THE GENERAL ELECTRIC TEST REACTOR (GETR)
BURLINGAME, CA
NOVEMBER 14, 1979

ACRS

W. Kerr, Chairman
D. Okrent
J. C. Mark
P. Pomeroy, ACRS Consultant
S. Philbrick, ACRS Consultant
G. Thompson, ACRS Consultant
J. Maxwell, ACRS Consultant
T. Pickel, ACRS Consultant
M. White, ACRS Consultant
E. Igne, Designated Federal Employee

GENERAL ELECTRIC COMPANY

E. Strain
D. Crowley
W. Pier
H. Stone
G. Edgar
D. Gilliland
G. Hoggatt
K. Gallen
R. Watkins
A. Levine
R. Darmitzel

J. R. BENJAMIN & ASSOCIATES

J. Reed
J. R. Benjamin

NRC STAFF

G. Zwetzig
W. Burkhardt
D. Swanson
R. Reid
W. Gammill
J. Greeves
R. Jackson
C. Nelson

U.S. GEOLOGICAL SURVEY

D. Herd
E. Brabb
R. Morris
J. Devine

EARTH SCIENCES ASSOCIATES

R. Meehan
D. Yadon
D. Hamilton
R. Harding
R. Wright
C. Willingham

WILLIAM COTTON & ASSOCIATES

W. R. Cotton

MEMBERS OF THE PUBLIC

F. R. Ulrech, Self
Mrs. F. R. Ulrech, Self
H. Hubbard, Citizens for Total Energy
R. H. Jahns, Consultant
D. Martin, Tri-Valley Herald
C. M. Payne, TERA Corp.
R. Shlemon, Consultant, GETR
A. Baldwin, Rep. Dellums, Friends of the Earth
B. Shockley, Friends of the Earth, Alameda County Planning
Commission
M. Ross, Lawrence Livermore Lab.
J. Miller, Oakland Tribune
K. McDonald, Valley Times