



United States Department of the Interior

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Office of Energy and Marine Geology
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March 5, 1990

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Memorandum

To: Ralph Moberly, Chairman, JOI-PCOM

From: Mahlon Ball, Chairman, JOI-PPSP *MB*

Subject: PPSP meeting of 2/27-28/90

This meeting was held at U.S. Geological Survey offices, 3475 Deer Creek Road, Menlo Park, California.

Attendance:

Yutako Aoki, JOI-PPSP	Thomas Thompson, ODP Safety Panel
Mahlon Ball, JOI-PPSP	Carl Brenner, JOI Data Bank, LDGO
George Claypool, JOI-PPSP	Glen Foss, ODP/TAMU
Claude Delas, JOI-PPSP	Marta von Breymann, ODP/TAMU
Mimi Fortier, JOI-PPSP	Michael Fisher, Co. Chief, Sci. Leg 134
Art Green, JOI-PPSP	Gary Greene, Co. Chief Sci., Leg 134
Dietrich Horn, JOI-PPSP	Peter Davies, Co. Chief Sci. Leg 133
Barry Katz, JOI-PPSP	Judith McKenzie, Co. Chief Sci., Leg 133
David MacKenzie, JOI-PPSP	David Feary, Sci. Leg 133
Benjamin Mascarin, JOI-PPSP	Jean Pierx Crumiere, Sci. Leg 133
Ralph Moberly, PCOM Chrman., H.I.G.	Steve Lewis, JOI-SSP Liaison
Lou Garrison, ODP/TAMU	Keith Kvenvolden, guest
Henk Worries, ODP Safety Panel	

Mahlon Ball opened the meeting by requesting self introductions from and circulating a signature list to those present at the meeting. Minutes of the previous meeting were approved.

Lou Garrison reviewed drilling results for Legs 129 and 130.

Ralph Moberly reviewed the drilling program's long-range plans from the perspective of JOI-PCOM.

Marta von Breymann led a discussion of shows encountered during Sea of Japan drilling (legs 128 and 129). From this discussion it was apparent that an addendum to PPSP guidelines is needed. This addendum must expand on guidelines for monitoring gas shows. Specifically, 1) records of shows must be maintained, 2) total gas values must be normalized on the basis of sediment sample weight, 3) temperature data should be available for sites with potential for hydrocarbon hazard, 4) guidelines must be provided for use of Rock-Eval pyrolysis data, 5) suggestions for a quick extract of sediment to be run in a capillary column, particularly for samples with fluorescent cuts, must be evaluated, and 6) a hydrocarbon geochemist should be a scientific party member for all legs where potential hydrocarbon hazards exist.

George Claypool led a discussion of gas hydrates. Claypool pointed out that although existence of a BSR is evidence for free gas beneath a clathrate base, pressure of this gas should not exceed hydrostatic as long as water is present to combine with gas to form more clathrate. Claypool added that the volume increase accompanying decomposition of a gas hydrate is a function of hydrostatic pressure and that in oceanic settings with pressures of 300-600 atmospheres the volume increase is only 1.4 to 1.1 the original hydrate volume. Claypool feels that as long as a liquid water phase is present and the drill string is filled with a material having a density of at least seawater, there should be no tendency for the gas phase to flow to the surface. Art Green raised a question regarding huge gas pressures developed below clathrates in Siberia. Claypool pointed out that in permafrost settings water in liquid phase must be absent to allow gas pressures to build. Ball appointed a subcommittee of Claypool, Berry Katz, and Keith Kvenvolden to develop expanded guidelines for monitoring gas shows and updating PPSP policy regarding gas hydrates. These expanded guidelines will be presented and discussed at PPSP's next meeting.

Michael Fisher presented regional considerations and scientific objectives for leg 134, Vanuatu. Gary Greene gave site-by-site descriptions for the safety review by PPSP and the ODP safety panel. Ball read parts of David Robert's letter pertinent to Vanuatu sites to safety panel members prior to the consideration of these sites by the panel members.

DEZ-1	Approved to a penetration of 300 m at the intersection of lines 15 and 17.
DEZ-2	Approved to a penetration of 800 m at the intersection of lines 104 and 1022.
DEZ-4	Approved to a penetration of 1000 m at S.P. 800 on line 107.
DEZ-5	Approved to a penetration of 750 m at the intersection of lines 100 and 106.
IAB-1	Approved to a penetration of 1000 m at the intersection of lines 19 and 1041.
IAB-2	Approved to a penetration of 1200 m at SP 975 on line 20. This site was moved to avoid faulting and should be drilled after IAB-1.

Peter Davies presented regional considerations and scientific objectives for leg 133, Northeast Australia. David Feary gave site-by-site descriptions for the safety review by PSP and the ODP safety panel. Robert's letter, as it pertains to Northeast Australian sites, was considered by panel members in connection with this safety review. Green led a discussion of the distribution of source rocks, reservoirs, migration routes and seals in marginal troughs similar to the Queensland and Townville Troughs. The point was made that little is known concerning these basins and careful hydrocarbon monitoring is in order for drilling the Northeast Australian sites.

NEA-1	Approved to a penetration of 400 m at CDP 6390 on line 75/043.
NEA-2	Approved to a penetration of 400 m at CDP 5430 on line 75/043.
NEA-3	Approved to a penetration of 400 m at CDP 10445 on line 75/043. This site was moved to avoid reflection complexities.
NEA-4	Approved to a penetration of 400 m at CDP 468 on line 75/045.
NEA-4A	Approved to a penetration of 400 m at CDP 1084 on line 75/045.
NEA-5	Approved to a penetration of 1100 m at CDP 5865 on line 75/041.
NEA-6	Approved to a penetration of 400 m at CDP 798 on line 75/039.
NEA-8	Approved to a penetration of 400 m at CDP 3062 on line 75/037. This site was moved to avoid an apparent high at total depth.
NEA-9A	Approved to a penetration of 500 m at CDP 3668 on line 75/059.
NEA-10A	Approved to a penetration of 500 m at CDP 4068 on line 75/057.
NEA-10A (alternate)	Approved to a penetration of 300 m at CDP 5802 on line 75/057.
NEA-11 (alternate)	Approved to a penetration of 700 m at CDP 1232 on line 75/030 with the stipulation that the upper pelagic section maintains its muddy character and lacks shows. If hard zones representing potential seals are encountered, drilling must be stopped above the underlying turbidite section.
NEA-13	Approved to a penetration of 250 m at CDP 311 on line 75/027.
NEA-14	Approved to a penetration of 400 m at CDP 6630 on line 75/027.

Lou Garrison discussed scientific objectives of leg 132, an engineering leg and described each site for the safety review.

ENG-5	Approved to a penetration of 250 m at the intersection of lines FM-3507-8 and 10KK84-G.
ENG-6	Approved to a penetration of 275 m at 1816Z, 16 June 1977, on line Kona Keoki. 77-03-17 leg 5.

ENG-6A

Approved to a penetration of 275 m at 1812Z, 16 June 1977, on line Kona Keoki. 77-03-17 leg 5.

ENG-7,7A and 7B

Approved to penetrations of approximately 150 m at 1052Z, 1055Z, and 1047Z, respectively on line Roundabout, leg 10, 18 Nov. 1988.

Ball announced that complete files concerning the Exmouth Plateau drilling would be sent to members of PPSP and ODP safety panels, Garrison and Moberly, and that the Exmouth drilling discussion will be completed at the next PPSP meeting. PPSP noted unanimously to ask Lou Garrison to join PPSP on his retirement from ODP. PPSP designated August 15-16, 1990 as the date for its next meeting.

Copy to: Dr. Peter J. Davies