

TIG 3 Meeting: 2 September 2010 MINUTES

Attendance and Apologies

Attendees: Alexandra Long (AL), Mike Malavazos (MM – Chair), Mike Middleton (MMiddleton), Kevin McCue (KM), Gary Gibson (GG), Betina Bendall (BB), Stacey Dix (SD – Minutes), David Love (DL), Jerome Randabel (JR), Peter Reid (PR), Ella-Maria Llanos, Terry McKinley (TM), Cameron Huddlestone-Holmes (CHH)

Apologies: Barry Goldstein (BG)

1. Welcome

2. Terms of Reference (MM)

a. Areas of focus

- TIG 3 ToR to be established by committee. MM noted that GEISER is the international equivalent of TIG 3 – DL/MM/BB will be attending their workshop in Iceland in October 2010.
- KM noted that GEISER is limited to geothermal actions, but asked if TIG would be open to include other factors that induce seismicity, including reservoir filling and deep mining etc. The response was that the TIG's focus would be on the geothermal sector, however, given that data is limited, there is potential to use data from different sources as a proxy and opportunity to learn lessons from other sectors.

b. Objectives/outcomes

- (CHH) - TIG 3 should focus on how does induced seismicity happen and what to do about it, to inform industry and government.
- TIG 3 established that they would not engage in consultation strategies but would maintain a more technical focus.
- AL noted that even if TIG 3 does not have the capacity itself to complete the science, it can engage in research and look at those areas we need to know about induced seismicity
- If AGEA goes ahead with establishing best practice guidelines on induced seismicity, it was suggested that TIG 3 could act as an independent body of review (and feedback) for such documentation.
- (AL) - one output could be a workshop for TIG 3 after the GEISER meetings in Iceland.
- (BB) - one product could be a white paper that identifies research topics.
- Recommendations for minimum monitoring requirements for both HSA and EGS (firstly, identifying what information we need to capture and store adequate data appropriately) – but the TIG does not want to articulate what companies should/shouldn't do, as it's core business for companies to monitor certain data.

c. Membership

- Geoscience Australia identified as a key player in this space – no attendee present during the meeting
- Australian Earthquake Engineering Society (KM and DL present from AEES)
- Environmental System and Service (GG present form ESS)
- Other relevant industry bodies in seismic sector.

d. Modus of operandi

- (MM) - Need to set up issues groups and appoint group leaders with expertise.

- MM clarified that this is not a South Australian-centric group
- Important to know what regulations/monitoring requirements are in each jurisdiction. BB/MM noted that the TIG has been set up to collaborate in the space and flesh out monitoring regulations etc which can hopefully be relatively standardised across the nation.

TERMS OF REFERENCE:

- Focus on technical aspects of induced seismicity
- Research in collaboration with industry
- Linkages with other organisations (i.e. GEISER)

ACTION: MM to prepare draft TIG 3 ToR and send to group for review and comment

3. Current areas of priority in relation to induced seismicity

- Discussion deferred until next meeting

4. Status report from jurisdictions

a. SA (BB/MM/PR)

- Geodynamics' Jolokia looking to stimulate soon; (PR) Petrathem stimulation likely to be towards the end of the year.
- (MM) – Advised that PIRSA developed a list of questions to guide licensees in preparing its induced seismic risk assessment as part of regulatory approval requirements. Agreed to circulate this to the TIG members for information and comment.
- (BB) - PIRSA talking to seismologists and companies and looking to develop guideline on data reporting relating to both induced seismicity monitoring and reservoir stimulation parameters. Consultation and drafting is still in progress.

ACTION:

- BB to circulate draft data reporting guideline to TIG 3 once finalised
- MM to circulate guiding questions for induced seismicity risk assessment for comment and review

b. Victoria (TM)

- Approx 30 permits at this stage – two with projects (Greenearth's project in Western Geelong, and Hot Rock Ltd's Koroit project).
- These two companies have received federal funding of \$7m and there are conditions on seismic monitoring, but there is a lack of specificity on what sort of seismic monitoring is required. TM expressed a need for advice on this matter.
- GG noted that the University of Melbourne have received a research grant (including a lot of money for equipment). They plan to setup methods for monitoring and analysis of induced seismicity – but the project is still in very early stages. There is scope for this to cover some of the questions arising from TIG 3.

c. WA (MMiddleton)

- Two small projects (HVAC at Challenge Stadium and a metropolitan school in Perth), extraction of 60,000Gj/annum. No monitoring equipment in place.
- In the next 12-18 months, Curtin University and University of Western Australia looking to setup large scale HVAC with potential monitoring arrays in place.

d. QLD

- No update

e. **NSW**

- o No update

ACTION: MM to invite Fiona Holgate (KUth Energy, Tasmania) to join TIG 3

5. **October Induced Seismicity Workshop – Reykjavik, Iceland**

- MM will arrange workshop after IPGT/GEISER meetings to share learnings with TIG 3
- (BB) - IPGT has now included induced seismicity as a key research area. No further information at this stage as to what's happening with it. (MM) – TIG 3 should be unanimous in it's decision of who should convene the IPGT induced seismicity working group; it was agreed that TIG 3 should put potential names forward for the role of convenor.

ACTION: MM to arrange TIG 3 workshop following IPGT/GEISER meetings in Iceland

6. **Other business**

- CHH noted that TIG 3 should ensure that communication on induced seismicity continues with related TIGs (such as TIG 9 and TIG 10). BB noted that TIG 10 are having a pre-AGEC workshop on Tuesday 16th, there shouldn't be any problems with TIG 3 joining in on this workshop

ACTION: BB/AL to liaise with TIG 10 for details on pre-AGEC workshop and alert TIG 3
(Secretariat note: this action was completed on Monday 6 September by AL)

7. **Next meeting**

- Date of next meeting to be confirmed
- Items for next meeting:
 - o Data requirements/data management
 - o Other current areas of priority in relation to induced seismicity