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New Subsurface Order Institutes New Monitoring, Setback, and Response Requirements to Manage the Risk of Induced Seismicity Near the Brazeau Reservoir

Today we released Subsurface Order No. 6, which establishes new monitoring, reporting, and setback requirements to manage the potential hazard of induced seismicity from hydraulic fracturing near the Brazeau Reservoir, Alberta.

The order prohibits hydraulic fracturing operations within five kilometres of the Brazeau dam infrastructure if operations are targeting the Duvernay Formation or below it. It also prohibits hydraulic fracturing within three kilometres of the Brazeau dam infrastructure if operations are targeting formations above the Duvernay Formation, which includes the Cardium, Rock Creek, and Falher Formations.

The order also establishes a mandatory traffic light protocol for hydraulic fracturing operations in the formations above the Duvernay within five kilometres from the Brazeau dam. Under the traffic light protocol, licensees must implement seismic monitoring and response procedures to manage the hazard of induced seismicity before, during, and after any hydraulic fracturing activity. Any seismic events greater than 1.0 M_L must be reported and mitigated (yellow light infraction). If an event 2.5 M_L or greater is detected (red light infraction), the fracturing operations must cease until authorized by the AER to restart.

The AER will continue to evaluate the risk of induced seismicity in the region to ensure that the Brazeau dam setback distances are protective of Albertans. The order may be updated in the future based on scientific evidence regarding the potential hazard.

For more information, contact our Customer Contact Centre by phone at 403-297-8311 (1-855-297-8311 toll free) or by email at inquiries@aer.ca.