

AGH University of Science and Technology  
al. Mickiewicza 30

Vestmannaeyjum 7. mars 2019  
UST201902-274/P.V.B.

**Subject: Research permit-Snæfellsjökull National park**

The Environment Agency of Iceland has received an application from AGH University of Science and Technology, dated February 25<sup>th</sup>, for a research permit within Snæfellsjökull National park.

Snæfellsjökull is protected as a national park cf. regulation no. 568/2001. All researches within the national park are subject to a permit from the Environment Agency of Iceland according to art. 17 in the regulation

***Description of the project:***

The aim of the project is to measure acoustics of lava cave and will take place in Vatnshellir. Impulse response measurements will be made in the cave. Measurements of the spatial impulsive response of caves are performed using the SWEEP SINE method. It is a non-invasive research method, allowing the determination of acoustic parameters of any space. Additionally, measurements of sound level, 3D laser scanning of cave shape and ambisonic recording will be carried out. The cave needs to be empty for the measurements and will be conducted after a tour in the cave. For testing, a portable sound meter and audio recorder will be used. The measurement will take 30-60 min and will be taken between 11 am and 3 pm on March 14<sup>th</sup>. The research group consists of 7 people.

***Impact assessment:***

The Environment Agency considers the research not likely to have negative affect on Vatnshellir or the national park if conditions for the permit are followed.

***Conclusions and conditions:***

The Environment Agency of Iceland hereby grants AGH University permission on its behalf for research permit on acoustics in Vatnshellir on following conditions:

- Keep this letter with you on site during the project. The permit conditions should be introduced to the staff before the work begins.
- If the dates of the project or project description changes the Environment Agency shall be notified as soon as possible.
- The applicant shall contact rangers in the areas 24 hours before the research team arrives in the cave and inform him on your intentions.

- It is strictly prohibited to go off paths in the cave.
- The research group must follow the code of conduct for the cave while staying there.
- The measurements and installation of equipment must be done in consultation with guides working in the cave.
- The crew should be conscious of other guests on the sites and make sure that the measurements causes as little disturbance as possible to other visitors.
- This permit is only valid for research purposes. It does not include permit to utilize the results for commercial purposes. The measurements cannot be signed over to third party for commercial use.
- Every measure should be taken to avoid damage to the sites and unnecessary disturbance while measurements are collected.

If the developer causes damage to the nature, according to art. 87 in the Nature Conservation Act no. 60/2013, the Environment Agency of Iceland can, according to the Nature Conservation Act, f.e. ordered the licensee to fix damage to the nature and vegetation and/or stop the project.

***Request:***

The Environment Agency of Iceland wishes to be secured, free of charge, a copy of all reports and scientific articles that results from the research project.

***Permission fee:***

Environment Agency of Iceland charges a fee for processing applications for permits in protected areas based on Article 92 of Act no. 61/2013 on Nature Conservation. The fee for researches is 39.400 ISK according to art. 24. b. in the agency's tariff no. 535/2015.

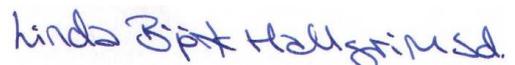
***Supervision:***

The Environment Agency will supervise the project. The supervisor will be a ranger from the Environment Agency.

Sincerely



Hildur Vésteinsdóttir  
Director



Linda Björk Hallgrímsdóttir  
Advisor