

NOISE REGULATION AT THE ONTARIO MINISTRY OF THE ENVIRONMENT AND CLIMATE CHANGE

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Résumé

Dans la province de l'Ontario, la réglementation du bruit et des vibrations est effectuée par un petit groupe d'ingénieurs à l'effectif diversifié et regroupé sous la bannière de la Direction des Autorisations Environnementales du Ministère de l'Environnement et de l'Action en matière de changement climatique. Leur tâche principale est la vérification des études de bruits reliées aux demandes d'autorisations environnementales pour sites industriels. Certains de ces ingénieurs sont assignés au processus des autorisations de projet d'énergie renouvelable, et cette équipe s'occupe en majeure partie des demandes d'autorisation pour les parcs éoliens et les centrales solaires. D'autres fonctions effectuées par ces ingénieurs comprennent la vérification d'études de bruit soumises à l'appui des évaluations environnementales, l'enquête des plaintes de bruit, témoigner lors des audiences, et l'apport de clarifications pour la ligne directrice du bruit environnemental, laquelle est parfois utilisée telle quelle par certaines municipalités dans la formulation de règlements municipaux. Quoique l'administration des problèmes reliés au bruit en ce qui a trait à la planification de l'usage des sols fût transférée aux municipalités il y a plus de dix ans déjà, les ingénieurs du Ministère spécialisés en acoustique se sont quand même impliqués, avec succès, dans le dossier de la revitalisation du secteur riverain de Toronto lorsque trois paliers gouvernementaux en ont fait la demande. Puisque le Ministère n'a pas d'agence spécifique pour formuler la politique du bruit, contrairement à celles qui existent pour formuler les politiques de la pollution de l'air et les sites de déchets, ces ingénieurs acousticiens jouent aussi un rôle majeur dans la création de propositions pour changements de politique. Récemment, et avec la coopération de la communauté des consultants en acoustique, du secteur du développement, des municipalités, et des citoyens, les ingénieurs acousticiens du Ministère ont complété la première révision majeure en vingt ans de la ligne directrice relative au bruit environnemental.

Mots clefs: réglementation du bruit; autorisations environnementales; autorisations de projet d'énergie renouvelable; ligne directrice du bruit environnemental NPC-300

Abstract

Provincial regulation of noise and vibration in Ontario is carried out by a small and diverse group of engineers working for the Ministry of the Environment and Climate Change, in the Environmental Approvals Branch. Their primary activity is the review of the noise aspects of Air and Noise ECAs (Environmental Compliance Approvals) for industrial installations. Several noise engineers are also dedicated to the REA (Renewable Energy Approval) process, primarily related to wind and solar farms. Additional duties include review of Environmental Assessments, investigation of noise complaints, testifying at hearings, and clarification of the provincial noise guidelines, especially as used by some municipalities. Although dealing with noise issues around land use approvals was transferred to the municipalities over 10 years ago, the noise engineers stepped up when the Ministry received a request from three levels of government to become involved in the Toronto Waterfront Revitalization effort and were successful in resolving a serious noise-based conflict between developers and a significant industry. Since the Ministry does not have a separate agency for formulating noise policy, such as exists for air contaminants, the noise engineers also play a large role in implementing policy changes. Recently the noise group, in coordination with the noise consulting community, the development sector, municipalities and private citizens, completed the first major revision of the MOECC's noise guidelines in 20 years.

Key words: noise regulation; Environmental Compliance Approvals; ECA; REA; NPC-300

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1 Introduction

Provincial regulation of noise and vibration in Ontario is carried out by a team of Noise Review Engineers working for the Ministry of the Environment and Climate Change (MOECC), in the Environmental Approvals Branch located in midtown Toronto. This small group, normally numbering less than a dozen, is highly diverse in age from new engineers to near retirement, in background from a number of Canada's multicultural elements, and in experience, including private sector noise consulting, academia, marketing and the military.

2 Noise Team Qualifications and Experience

The most basic qualification for inclusion in the MOECC noise group is registration as a Professional Engineer under PEO. The majority are Mechanical engineers, although there are some other disciplines, such as Electrical and Civil. Most of the review engineers have at least some, and in some cases a great deal of university training in Acoustical Engineering. Helpful experience to bring to the task includes understanding of traffic and transportation noise, industrial noise, types of government jurisdiction over noise regulation, community reaction to various levels of noise, relative irritability/subjective loudness of different sound sources, typical sound levels of stationary sources and background/ambient sources, and of course, an instinctive grasp of logarithmic math. Also useful is experience in political, legislative and planning processes, and in consultation between government agencies, developers, legal teams and citizen groups.

3 Team Duties

The primary activity of the team is the review of applications for the noise aspects of Air and Noise ECAs (Environmental Compliance Approvals) for industrial installations. Emitter accountability is a strong principle of the Ministry, which requires that the applicant provide assessment of environmental impact, including specific abatement measures to address any identified excesses, without prompting by review staff. Thus, the review engineers act in an oversight role, ensuring that the submitted Acoustic Assessment Reports and Noise Abatement Action Plans fulfill MOECC requirements, that proposed solutions will occur in a timely fashion, and that environmental quality is protected for the citizens of Ontario.

An inherent part of the Noise Review Engineer's duties is coordination with Air Review Engineers, as noise approvals are normally part of Air and Noise ECAs and review of both air and noise submissions takes place concurrently. It is expected that each Air and Noise Review Engineer has a basic understanding of the review process of the other, although neither does detailed reviews outside of his or her own "medium". In recent years, "multimedia" approvals have been issued, in which such media as Waste and Wastewater are added to the process.

Additional duties for the noise engineers include review of Environmental Assessments, investigation of noise complaints, testifying at hearings, and clarification of the provincial noise guidelines, especially as used by some municipalities. As well, several noise engineers are dedicated to the REA (Renewable Energy Approval) process, primarily related to wind and solar farms. The noise engineers also stepped up when the Ministry received a request from three levels of government to become involved in the Toronto Waterfront Revitalization effort and were successful in resolving a serious noise-based conflict between developers and a significant industry.

4 Policy Work

Since the Ministry does not have a separate agency for formulating noise policy, such as exists for air contaminants, the noise engineers also play a large role in implementing policy changes. Recently the noise group, in coordination with the noise consulting community, the development sector, municipalities and private citizens, completed MOECC publication NPC-300, the first major revision of the MOECC's noise guidelines in 20 years.

The overall goal for NPC-300 was to streamline both residential development and industrial installations without increasing the noise impact on communities. Incorporating lessons from the Toronto Waterfront Revitalization process, three former guideline documents were combined into one guideline, providing consistent sound level limits for industrial regulation and land use planning activities, and including special considerations for infill situations and receptor-based noise mitigation for industrial sources. Thus far, it appears that the goals are being achieved.

5 Future Directions

The Ministry recognises that its ECA clientele is always interested in reducing the turnaround time for approvals. The required thoroughness of review for noise approval applications can range from very simple to highly complex processes, involving prolonged negotiations and multiple legal teams. Several screening methods have been put in place, and more are on the way, in an effort to assign the appropriate level of human resources to a given review.

6 Joining the Team

Low personnel turnover is evidence of the considerable job satisfaction to be found in the noise group. Still, from time to time there are permanent and temporary contract positions available. The temporary postings are highly recommended to noise consultants from the private sector as an unequalled way to gain insight into the noise regulation requirements and approval process in Ontario.