

MEETING AGENDA
ENVIRONMENTAL NOISE ADVISORY COUNCIL
AND THE INTERAGENCY NOISE CONTROL COMMITTEE

December 3, 2001
9:00 AM to 12:00 PM
Chesapeake Conference Room

- 9:00 Welcome and Introductions
- 9:05 Minutes of the October meeting
- 9:10 Status of Medical Chirurgical Faculty member
- 9:15 Discussion of Legislative and Regulatory Proposals Requested by the Council
- a. Council and Committee - Membership, Roles, Responsibilities
 - b. Local Government and Noise Issue Prevention – Zoning and Permit Review
 - c. Shooting Sport Facilities – need for regulations to be consistent with the law
- 10:30 +/- Break
- 11:15 Discussion and selection of next issues to be brought before the Council and Committee
- Periodic and Impulse Noise Definition
 - Measurement technique – Table 2
Fast L_{max} vs. other methods
 - Agricultural equipment – field machinery vs. stationary equipment
 - Continuous Noise - Goals – Standards and Table 1 – use of L_{dn} vs. L_{max}
 - Household tools – nighttime limitation
 - HVAC – lower standards (remove from law and regulations)
 - Household pets – exempt
 - Public property exemption – retain exemption or consider for emergency situations only
 - Variance costs – should they be borne by the applicant
 - Local government ordinances – model zoning and, building codes; how to enforce compliance
 - Others
- 11:30 Public Input Session – 5- minutes presentations, if any
- 12:00 Adjourn
- Future Meetings Jan 7, 2002
 February 4, 11, 18, 25?
 March 4, 11, 18, 25?
 April 1, 8, 15, 22, 29?

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November 28, 2001

To: Chair, Environmental Noise Advisory Council
From: Technical and Regulatory Services Administration, MDE
Subject: Proposed Changes in Law and Regulations

Issue Paper No. 1
Local Government Roles in Zoning and Permit Issuance

Issue

Noise complaints are frequently avoidable through reasonable planning and zoning decisions. Complaints frequently involve the placement of noise generating sources such as HVAC units, dumpsters, and loading docks without regard for adjoining property uses. Prime examples are the strip malls and large box stores that have their loading docks immediately adjacent to townhomes or apartment complexes. Reorientation of the facility during site design, or the addition of sound mitigation packages that manufacturers frequently sell as add-ons for HVAC and standby generators can frequently avoid these situations.

In many circumstances, simple rearrangements of the site plan could have prevented the circumstances from causing the complaint. If the site plan could not be altered to prevent the problem, initial acoustical engineering and the installation sound mitigation devices could be employed to avoid the need for retrofit engineering. In addition to reducing the cost burden on the noise sources, the avoidance of complaints reduces the burden on the state and local governments for compliance actions, which can require extensive administrative and legal resources.

Montgomery County utilizes a simple check-off process in their zoning and permit issuance processes to have these preventative measures instituted. Consideration of mandating this procedure by all local jurisdictions would greatly reduce the number of new noise complaints that must be addressed by local governments and the state. Benefits to the developer in the form of reduced costs for post construction mitigation and legal matters

Laws

The existing statute (Environment Article, Title 3, provides that local governments may adopt noise control regulations that are not less stringent than those of the state. Some local jurisdictions have adopted local ordinances that are equal to, or more stringent, than the state regulations.

The existing statute in EA §3-105(b) does establish some requirements for local governments and these are outlined below:

b) Each political subdivision shall:

- (1) Send to the Department a copy of each noise control ordinance, rule, or regulation that it adopts; and
- (2) Identify on each zoning map, comprehensive plan, or other appropriate document the sound level limits that are adopted under Subtitle 4 of this title.

Regulations

State Regulations at Code of Maryland Regulations do not contain any specific language addressing local jurisdiction duties or responsibilities. The only aspect of the regulations that is associated with local issues is the standard for maximum allowable noise levels. This section sets standards by generalized zoning district, which are set by local government.

**Table 3 Maximum Allowable Noise Levels (dBA)
for Receiving Land Use Categories
(MEASURED AS FAST L_{MAX})**

Effective Date	Day/Night	Industrial	Commercial	Residential
Upon Adoption	Day	75	67	65
	Night	75	62	55

Since these three zoning categories do not always have direct parallels in local ordinances, the application of these standards is defined by the actual use of the land.

Proposal

It is being proposed that Environment Article, Title 3 be amended to require local governments to consider noise as an environmental pollutant prior to the institution of any zoning changes, and prior to the issuance of any permits. This would be accomplished by adding two requirements to EA §3-105 .

Rationale

The proposed additions shown in CAPS (attached) would provide for a means of minimizing the potential for future problems through a process of review during zoning changes, variance considerations, or permit issuance. They would not require local governments to institute local ordinances, and would not correct existing noise problems. Both processes could be managed within the existing framework of review through the addition of relatively simple check off requirements in the approval process. Although there may be some additional professional certification required, routine situations, such as the siting of home heat pumps or air conditioners, could be handled with standardized charts of sound attenuation over distance that are routinely available from manufacturers. More complex situations may require certification by acoustical engineers. While this may be viewed as an additional cost, the avoidance of the need for retrofitting a system with sound abatement devices and the avoidance of complaint investigations would help to justify the cost of pre-construction engineering review.

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Issue Paper No. 2
Council and Committee Membership

Issue

The Environmental Noise Advisory Council and the Interagency Noise Control Committee were established in statute in the mid 1970s. Since that time, a number of organizations recommended for inclusion as members have ceased to exist, or have functions and responsibilities that no longer relate to noise. Similarly, new organizations have been created that have more direct relationships with the evaluation and control of noise. In the authorizing statute, the General Assembly was not provided with representation on either group. Also, neither the Maryland Association of Counties, nor the Maryland Municipal League were included in the membership considerations. In consideration of the potentially significant social and economic impacts of revisions to the State's noise laws and regulations, representation of the additional organizations should be considered. Recommendations of the Council and Committee need to reflect the interests of a broad spectrum of the community, as reflected in the proposed revisions.

Laws

The Noise Advisory Council is authorized and its functions defined in Environment Article, Subtitle 2. The Interagency Noise Control Committee is authorized and its functions defined in Subtitle 3.

Regulations

There are no regulations in Title 26 of the Code of Maryland Regulations governing the Council or the Committee.

Proposal - Council

The proposal for the Council is to broaden the representation of the general public from one to two, provide for a representative from either the Acoustical Society of America or from the Institute of Noise Control Engineering, add one member from the Maryland Municipal League, add one member from the Maryland Association of Counties, require one member from the Chamber of Commerce (now included as a consideration under general public), and add one member each from the Senate and House of Delegates. In total, the membership would increase from five to nine. Consideration of members from the Transportation Federation (no longer in existence) and the Maryland Environmental Trust (not involved in noise issues) would be eliminated.

The five-year terms would be eliminated and members would simply serve at the pleasure of the Secretary.

Proposal - Committee

The Committee would be broadened to include representation from the Department of Health and Mental Hygiene (DHMH), the Department of Business and Economic Development (DBED), and the Department of Labor, Licensing, and Regulation (DLLR). The Office of Planning would be changed to the Department of Planning.

Rationale

The expansion of the Council is intended to provide a broader base of input on proposed changes that more fully represents the interests of the various organizations that might be affected. The representatives serve at the pleasure of the Secretary and fixed term limits are not considered necessary in light of the appointment authority. Petitions for changes can be accepted and acted upon by the Secretary as suggested by any interested person.

The added Departments proposed for addition to the Committee reflect their interests, expertise, and responsibilities. Although DHMH does not have specific regulations regarding noise, their human health protection mission and expertise in general health matters requires their presence and input. The Department of Licensing, Labor and Regulation has regulations regarding noise and a direct interest in worker protection, including protection against hearing loss. Their knowledge and expertise in noise issues are also required by the Committee. The change of name in the Office of Planning to the Department of Planning reflects a recent reorganization of the Cabinet by the Governor. The Department of Business and Economic Development is particularly attuned to the needs and concerns of business and industry in the State, which are the source of many noise complaints.

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Issue Paper No. 3
Gun Clubs – Update Regulations to conform to statute

Issue

Sport shooting facilities were given a general exemption from the noise control standards in regulations established in the mid 1970s. Although sport shooting facilities were not specifically mentioned in the exemption for amusement and sporting activities, an Attorney General's opinion specifically included them as an exempted entity. Subsequent to the opinion, the Legislature passed in 1983 a law that specifically regulated certain sport shooting facilities. The regulation of sport shooting facilities was sustained in two amendments (1999 and 2001) to the 1983 statutory change. Thus, the Attorney General's opinion exempting sport shooting facilities was nullified.

Laws

The additions to the statute in 1983 are located in Environment Article §3-105(a)(3)(i) and (ii), 3-402(c)(5)(i and ii).

Regulations

The applicable regulation is found at COMAR Title 26.02.03.03 B(2)(j)

Proposal

The proposal is to establish a new regulation that specifically addresses the statutory intent. This will require a specific exclusionary statement in the existing exemption and a new regulation that will simply repeat the language of the statute.

Rationale

The changes in the governing statute regarding sport shooting facilities requires that the regulations be changed to reflect the statutory intent. If the regulations are unchanged, the regulations prior to the change in the statute remain in force. This concept of the continuing validity of a regulation despite a change in statute has been established under a court decision.

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Statutory Changes for Powers and Duties of Political Subdivisions

§ 3-105. Powers and Duties of Political Subdivisions

(a) (1) Except as provided in this section, this title does not limit the power of a political subdivision to adopt noise control ordinances, rules, or regulations.

(2) A political subdivision may not adopt any noise control ordinance, rule, or regulation that is less stringent than the environmental noise standards, sound level limits, and noise control rules and regulations adopted under this title.

(3) (i) A political subdivision may not adopt any noise control ordinance, rule, or regulation, including the environmental noise standards, sound level limits, and noise control rules and regulations adopted under this title, that prohibits trapshooting, skeetshooting, or other target shooting between the hours of 9 a.m. and 10 p.m. by a shooting sports club that is chartered and in operation as of JANUARY 1, 2001. [~~July 1, 1983. However, this prohibition does not apply if the sports shooting club moves to a parcel of land that is not contiguous to the location of the club on July 1, 1983.~~]

(THE ABOVE CHANGE WAS ENACTED UNDER SB 869/ HB 1423 IN 2001)

(ii) This paragraph does not apply in Allegany, Baltimore City, Calvert, Charles, Garrett, Howard, Montgomery, St. Mary's, and Washington counties.

(b) Each political subdivision shall:

(1) Send to the Department a copy of each noise control ordinance, rule, or regulation that it adopts; and

(2) Identify on each zoning map, comprehensive plan, or other appropriate document the sound level limits that are adopted under Subtitle 4 of this title.

(3) **CONSIDER COMPLIANCE WITH ANY STATE OR LOCAL NOISE STANDARDS IN ADVANCE OF ACTING ON ANY PROPOSED VARIANCE REQUESTS OR CHANGES IN ZONING CLASSIFICATIONS.**

(4) **DETERMINE, PRIOR TO THE ISSUANCE OF ANY BUILDING OR ACTIVITY PERMIT, OR SIMILAR AUTHORIZING DOCUMENT, IF THAT PERMIT OR ACTIVITY WILL BE IN COMPLIANCE WITH LOCAL AND STATE NOISE CONTROL STANDARDS.**

[PROPOSED NEW LANGUAGE IN CAPS]

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Statutory Changes for Council Membership

Subtitle 2. Environmental Noise Advisory Council

§ 3-201. Council Established

There is an Environmental Noise Advisory Council in the Department.

§ 3-202. Membership

- (a) (1) The Council consists of [5] NINE members appointed by the Secretary.
- (2) Of the [5] NINE Council members:
- (i) 1 shall be appointed from a list of at least 3 qualified individuals submitted to the Secretary by the Acoustical Society of America AND THE INSTITUTE OF NOISE CONTROL ENGINEERING;
 - (ii) 1 shall be a physician who specializes in hearing, appointed from a list of at least 3 qualified individuals submitted to the Secretary by the Medical and Chirurgical Faculty of the State of Maryland;
 - (iii) 1 shall be appointed from a list of at least 3 qualified individuals submitted to the Secretary by the Chancellor of the University System of Maryland; and
 - (iv) 2 shall be appointed from the [general] public AT LARGE.
 - (V) 1 SHALL BE APPOINTED FROM A LIST OF AT LEAST 3 QUALIFIED INDIVIDUALS SUBMITTED TO THE SECRETARY BY THE MARYLAND MUNICIPAL LEAGUE;
 - (VI) 1 SHALL BE APPOINTED FROM A LIST OF AT LEAST 3 QUALIFIED INDIVIDUALS SUBMITTED TO THE SECRETARY BY THE MARYLAND ASSOCIATION OF COUNTIES;
 - (VII) 1 SHALL BE APPOINTED FROM A LIST OF AT LEAST 3 QUALIFIED INDIVIDUALS SUBMITTED TO THE SECRETARY BY THE MARYLAND CHAMBER OF COMMERCE;
 - (VIII) 1 EX OFFICIO MEMBER SHALL BE APPOINTED FROM THE SENATE BY THE PRESIDENT OF THE SENATE; AND
 - (IX) 1 EX OFFICIO MEMBER SHALL BE APPOINTED FROM THE HOUSE OF DELEGATES BY THE SPEAKER OF THE HOUSE.

[(3) Before appointing the members from among the general public, the Secretary shall request and consider suggestions for nominees from:

- (i) The Maryland State Chamber of Commerce;
- (ii) The Maryland Transportation Federation;
- (iii) The Maryland Environmental Trust; and
- (iv) Any other environmental groups that the Secretary selects.]

[(4)] (3) In making any appointment to the Council, the Secretary shall consider giving appropriate representation to the various geographical areas of this State.

(b) Each member of the Council shall be a resident of this State.

(c) TENURE – EACH MEMBER SHALL SERVE AT THE PLEASURE OF THE SECRETARY

[(1) The term of a member is 5 years.

(2) The terms of members are staggered as required by the terms provided for members of the Council on July 1, 1982. The terms of those members end as follows:

- (i) 1 in 1983;**
- (ii) 1 in 1984;**
- (iii) 1 in 1985;**
- (iv) 1 in 1986; and**
- (v) 1 in 1987.**

(3) At the end of a term, a member continues to serve until a successor is appointed and qualifies.

(4) A member who is appointed after a term has begun serves only for the rest of the term and until a successor is appointed and qualifies.]

§ 3-203. Officers

From among the Council members, the Secretary of the Environment shall appoint a chairman, a vice chairman, and a secretary of the Council.

§ 3-204. Meetings; compensation; staff

(a) The Council shall meet at the times and places that the Secretary or the chairman determines.

(b) A member of the Council:

- (1) May not receive compensation; but**
- (2) Is entitled to reimbursement for expenses under the Standard State Travel Regulations, as provided in the State budget.**

(c) The Department shall provide the Council with secretarial and stenographic assistance

§ 3-205. Advisory Role of Council

(a) Before the Department adopts any environmental noise standard or sound level limit, the Department shall submit the proposed environmental noise standard or sound level limit to the Council for advice.

(b) Within 60 days after receiving a proposed environmental noise standard or sound level limit from the Department, the Council shall give the Department its advice on the proposal by recommending:

- (1) Adoption;**
- (2) Rejection; or**
- (3) Modification**

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Statutory Changes Regarding Membership in the Committee

Subtitle 3. Interagency Noise Control Committee.

§ 3-301. Committee established.

There is an Interagency Noise Control Committee. (An. Code 1957, art. 43, § 827; 1982, ch. 240, § 2.)

§ 3-302. Composition; chairman.

(a) The Committee consists of:

- (1) 1 member of the Governor's executive staff, appointed by the Governor; and
- (2) 1 representative of each of the following departments, appointed by the Secretary of that department:

- (i) The Department of the Environment;
- (ii) The [State] Department of Transportation;
- (iii) The Department of Natural Resources;
- (iv) The DEPARTMENT [Office] of Planning; [~~and~~]
- (v) THE DEPARTMENT OF HEALTH AND MENTAL HYGIENE;
- (vi) THE DEPARTMENT OF BUSINESS AND ECONOMIC DEVELOPMENT;
- (vii) THE DEPARTMENT OF LICENSING, LABOR AND REGULATION; AND
- (viii) Any other principal department that develops, adopts, or enforces any noise control rule or regulation.

(b) Chairman. - The member who is appointed by the Secretary of the Environment is chairman of the Committee. (An. Code 1957, art. 43, § 827; 1982, ch. 240, § 2; 1987, ch. 306, § 16; 1988, ch. 6, § 11; 1989, ch. 540, § 1.)

§ 3-303. Meetings; compensation; staff.

(a) Meetings. - The Committee shall meet at least twice a year, at the times and places that it determines.

(b) Compensation and reimbursement for expenses. - A member of the Committee:

- (1) May not receive compensation; but
- (2) Is entitled to reimbursement for expenses under the Travel Regulations, as provided in the State budget.

(c) Staff; consultants, and facilities. - (1) In accordance budget, the Committee may:

- (i) Employ a staff;
- (ii) Employ consultants; and
- (iii) Obtain office facilities.

(2) The Department of the Environment shall provide the Committee with secretarial and stenographic assistance. (An. Code 1957, art. 43, § 827; 1982, ch. 240, § 2; 1987, ch. 306, § 16; 1988, ch. 6, § 11.)

§ 3-304. Duties of Committee.

(a) In general. - The Committee shall:

- (1) Receive reports of progress, problems, and proposed plans for attaining and maintaining State environmental noise standards from each agency that is represented on the Committee;

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(2) Evaluate the adequacy of existing and proposed efforts to attain and maintain State environmental noise standards;

(3) Review the relationship of State noise control rules and regulations with other environmental laws, rules, regulations, standards, and programs; and

(4) Recommend new or revised noise control rules, regulations, or legislation.

§ 3-401

(b) Annual report. - If the Council requests, the annual report of the Committee shall include a report of the Council. (An. Code 1957, art. 43, § 827; 1982, ch. 240, § 2; 1991, ch. 55, § 6; 1992, ch. 432; 1993, ch. 4, § 2.)

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Regulatory Changes Relating to Gun Clubs

The new regulations will be as follows:

Title 26 DEPARTMENT OF THE ENVIRONMENT Subtitle 02 OCCUPATIONAL, INDUSTRIAL, AND RESIDENTIAL HAZARDS

Chapter 03 Control of Noise Pollution

Authority: Environment Article, § 3-401, Annotated Code of Maryland

26.02.03.03

B. Exemptions.

- (1) The provisions of this regulation may not apply to devices used solely for the purpose of warning, protecting, or alerting the public, or some segment thereof, of the existence of an emergency situation.
- (2) The provisions of this regulation do not apply to the following:
 - (a) Household tools and portable appliances in normal usage.
 - (b) Lawn care and snow removal equipment (daytime only) when used and maintained in accordance with the manufacturer's specifications.
 - (c) Agricultural field machinery when used and maintained in accordance with manufacturer's specifications.
 - (d) Blasting operations for demolition, construction, and mining or quarrying (daytime only).
 - (e) Motor vehicles on public roads.
 - (f) Aircraft and related airport operations at airports licensed by the State Aviation Administration.
 - (g) Boats on State waters or motor vehicles on State lands under the jurisdiction of the Department of Natural Resources.
 - (h) Emergency operations.
 - (i) Pile driving equipment during the daytime hours of 8 a.m. to 5 p.m.
 - (j) ~~[Sound not electronically amplified created by sporting, amusement, and entertainment events and other public gatherings operating according to terms and conditions of the appropriate local jurisdictional body. This includes but is not limited to athletic contests, amusement parks, carnivals, fairgrounds, sanctioned auto racing facilities, parades, and public celebrations. This exemption only applies between the hours of 7 a.m. and 12 midnight.]~~

SOUND, EXCEPT THOSE SOUNDS THAT ARE ELECTRONICALLY AMPLIFIED, CREATED BY SPORTING EVENTS (EXCEPT TRAP SHOOTING, SKEET SHOOTING, OR OTHER TARGET SHOOTING), ENTERTAINMENT EVENTS AND OTHER PUBLIC GATHERINGS OPERATING UNDER PERMIT OR PERMISSION OF THE APPROPRIATE LOCAL JURISDICTION. THIS EXEMPTION ONLY APPLIES BETWEEN THE HOURS OF 7 AM AND MIDNIGHT.

(k) Rapid rail transit vehicles and railroads.

(l) Construction and repair work on public property.

(m) Air conditioning or heat pump equipment used to cool or heat housing on residential property. For this equipment, a person may not cause or permit noise levels, which exceed 70 dBA for air conditioning equipment at receiving residential property and 75 dBA for heat pump equipment at receiving residential property.

(N) TRAP SHOOTING, SKEET SHOOTING, OR OTHER TARGET SHOOTING BETWEEN THE HOURS OF 9 AM AND 10 PM ON ANY RANGE OR OTHER PROPERTY OF A SHOOTING SPORTS CLUB THAT IS CHARTERED AND IN OPERATION AS OF JANUARY 1, 2001. THIS EXEMPTION DOES NOT APPLY IN ALLEGANY, ANNE ARUNDEL, BALTIMORE CITY, CALVERT, CHARLES, GARRETT, HOWARD, MONTGOMERY, ST. MARY'S AND WASHINGTON COUNTIES.

Alternate (positive listing of counties for which the exemption applies)

(N) TRAP SHOOTING, SKEET SHOOTING, OR OTHER TARGET SHOOTING BETWEEN THE HOURS OF 9 AM AND 10 PM ON ANY RANGE OR OTHER PROPERTY OF A SHOOTING SPORTS CLUB THAT IS CHARTERED AND IN OPERATION AS OF JANUARY 1, 2001. THIS EXEMPTION APPLIES ONLY IN BALTIMORE, CAROLINE, CARROLL, CECIL, DORCHESTER, FREDERICK, HARFORD, KENT, PRINCE GEORGES, QUEEN ANNES, SOMERSET, TALBOT, WICOMICO, AND WORCESTER COUNTIES.

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Portland, Maine
NOISE-CON 2001
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PROBLEMS IN CONDUCTING RESEARCH ON THE EFFECTS OF ENVIRONMENTAL NOISE ON PUBLIC HEALTH

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INTRODUCTION

In 1992, the Federal Interagency Committee on Noise (FICON) recommended Government funding for "research on non-auditory health effects" of noise [1]. Two years later, a task force of the Seattle Community Council Federation, ROAR, wrote to the FAA asking for research on "the subtle long term psychological and physiological effects" of noise [2]. NRDC (National Resources Defense Council) followed up with presentations to the Federal Interagency Committee on Aviation Noise (FICAN) in 1995 [3] and 1996 [4] stating that "FICAN members need to conduct further studies on the effects of noise on the health of populations near American airports." When, in 1997, FICAN released a report by Air Force researcher Charles Harris [5] questioning whether exposures below a DNL of 75 had any adverse effect on physical health, this conclusion was highly criticized by the Noise Committee of the New York City Council on the Environment [6]. Part of the basis for their criticism was a Community Wellness and Health Promotion Survey of Long Island residents living inside flight corridors. The study showed a strong relationship between reporting noise annoyance and reporting "poor" or "fair" health [7]. FICAN has yet to endorse a research protocol to study aviation noise health effects. A review of the existing literature underscores the difficulty in such research.

PAST EFFORTS

The Long Island study did not establish a dose-response between noise and health, and, based on an Oslo Airport study [8], this goal appears to be difficult. The Norwegian researchers were able to establish a dose response for annoyance, behavioral reactions, activity interference and sleep, but not for self-reported health problems (exposure range of 42 to 72 dB EFN). Even the World Health Organization (WHO) with outdoor LEQ guidelines of 55 day and 45 night acknowledges that no dose-responses have been established between long-term noise exposure and hypertension [9]. Similarly, the WHO report states, "Other observed psychophysiological effects, such as changes in stress hormones, magnesium levels, immunological indicators, and gastrointestinal disturbances are too inconsistent for conclusions to be drawn about the influence of noise pollution." Given the past failures in the search for health effects among urban populations, how should future research be conducted? The purpose of this paper is to look at four options: animals, noise-sensitive people, unexposed populations, and children.

ANIMAL SUBJECTS

Working with rhesus monkeys, Peterson et. al. found cardiovascular changes with LEQ (24 hr) exposures above 85 dBA [10], while Turkan et. al. [11] established a dose response for diastolic pressure increases in baboons with one week exposures at 83, 93 and 97 dBA with a drop in blood pressure in subsequent weeks. Moreover, exposures below human occupational noise levels do not seem to have an adverse effect on the health of most animals. For example, Rocky Mountain National Wildlife Area became the home of over 330 species of mammals, birds, fish, reptiles, and amphibians during a time when the daytime (0800 – 1630) LEQ from Denver Stapleton airport was as high as 85 dBA [12]. Although there is anecdotal evidence that gorillas will come indoors to escape the noise of construction, emergency vehicles and loud gatherings of people [13], research with apes would be prohibitively expensive even if it were politically-acceptable.

NOISE-SENSITIVE PEOPLE

In 1998, the UK Department of the Environment, Transport and the Regions (DETR) committed the government to study sleep disturbance among noise-sensitive people [14]. In “stacking the deck” with noise-sensitive subjects, policy makers are assuming that they will capture the percentage of the population most likely to suffer adverse health effects. Earlier, Öhrström had set a precedent for this practice in a laboratory study of sleep disturbance from traffic noise [15], and this decision was backed up by two earlier studies in which noise-sensitivity was correlated with sleep disturbance [16, 17]. Appealing as this approach may be, there are some underlying difficulties. First, there are no validated psycho-physiological measures to determine noise-sensitivity. Although some researchers have found increased cardiovascular reactivity among noise-sensitive subjects [18, 19], others have not [20]. In a careful search for psychacoustic correlates of individual noise-sensitivity, Ellermeier et. al. were unable to find any [21]. In the end, the researcher must depend on self-report to select noise-sensitive subjects. Second, self-reports of noise-sensitivity appear to be correlated with self-reports of poor health, independent of measurable noise levels [22]. Third, noise-sensitivity has been found to covary with the degree of psychopathology [23], making it difficult to sort out causality in studies of noise and psychological health. Fourth, self-reported noise sensitivity may be the wrong variable on which to select the segment of the population most likely to suffer from noise exposure. For example, in a cross-sectional study of traffic noise at 65 dBA, Bluhm et. al. found a significant increase in hypertension among women but not men [24]. Andren [25] and von Eiff [26] found that normotensive subjects with a family history of hypertension revealed larger responses to noise than those without hypertensive relatives. As the science of genomics continues, it is not inconceivable that genetic markers for susceptibility to noise will be found. In the meantime, as Job and his colleagues wrote, “Noise-sensitivity is complex and not yet well understood [27].”

UNEXPOSED POPULATIONS

A third approach would be to study the health of people who begin their lives in natural soundscapes as they move to noisier environments. In the 1960’s, an otologist, Sam Rosen, who was exploring the relationship between noise exposure and hearing loss, studied the Mabaan tribe in southeast Sudan [28]. “The Mabaans live in a dramatically quiet, almost silent atmosphere on a frugal diet of ground millet, fish, nuts and wild dates. They eat almost no meat or saturated fat, do not smoke, are not obese, and seem to age more slowly and live longer than we do, remaining agile in their 70’s and 80’s.” Systolic and diastolic blood pressures were the same at 75 as at 15 years of age. Coronary heart disease was unknown, and the hearing acuity at

6 kHz of a 50 year old was better than that of a U.S. 20 year old. Although the Mabaan have been "internally displaced peoples" since January 1999, this earlier documentation is useful in setting the baseline for cardiovascular health among people with an African genetic heritage. Contemporary cross-sectional studies of the African diaspora confirm a low incidence of hypertension among rural Africans, a higher incidence among urban Africans, still higher in the Caribbean, and highest in the urban U.S. [29]. Without question, diet is a major factor, because the body mass index, a measure of a person's weight-to-height ratio, is also lowest in rural African and highest in U.S. urban populations. At the same time, noise and other sources of stress increase along the same lines, concentrating in the poorest neighborhoods. Diez Roux and her colleagues [30] found that "even after controlling for personal income, education, and occupation, ...living in a disadvantaged neighborhood is associated with an increased incidence of heart disease," and they suggest noise is one of the stresses. In theory, one could study individuals moving from quiet rural to noisy urban environments and attempt to isolate the effects of noise. In practice, the complex interaction between diet, noise and other stressors would preclude developing a dose response. A simpler alternative would be to look for improvements in health among people going from noisy to quiet environments, but there are few opportunities for such research. One opportunity was missed when Denver Stapleton Airport closed. Öhrström and colleagues have applied the recovery paradigm to sleep disturbance from traffic noise with mixed success [31].

CHILDREN

At a forum held by FICAN in Minneapolis in May 1997, members of the public asked the Federal agencies to address health effects in children. The request was prompted by a news story on Cornell Professor Gary W. Evans. Ironically, his research was conducted in Europe, because there has been no funding to study noise-exposed children in the U.S. Yet, according to Evans and his European colleagues, more than 10 million American schoolchildren are exposed to the noise levels at which they found elevated neuroendocrine and cardiovascular measures, deficits in a standardized reading test administered under quiet conditions, muted cardiovascular reactivity to a task presented under acute noise, poorer long term memory and diminished quality of life on a standardized index. [32]. As Bredberg demonstrated in his landmark work on cochlear histology [33], neonates begin life with a full set of hair cells and begin losing them in childhood. It is common to see young children put their hands over their ears to spare their auditory sensitivity. By adulthood, people in industrial societies are losing this sensitivity, reflected in a downward shift of the upper limit of hearing [34]. A convincing demonstration that noise in the range of 60 to 75 dBA can degrade cardiovascular health in children was a comparison of deaf and normal hearing children conducted in southern Taiwan [35]. In a more recent study with Austrian children, Evans et. al. have extended the range of health effects to below 60 dBA [36]. The preferred paradigm for studying health effects in children is the longitudinal study [37,38], but these are more expensive than cross-sectional studies. A possible opportunity for a longitudinal study would be at child care centers operated by the military services. Some child care centers, such as at Yuma Proving Ground, AZ, are in exceptional quiet. Others are located on busy air bases. Because families with young children are likely to remain within the military system, tracking of children as they move from one sound environment to another is easier than in the civilian world

CONCLUSIONS

Children appear to be the "canaries in the coal mine" of community noise. When isolated from other sources of stress, they demonstrate significant increases in cortisol over the range from 46 L_{dn} to 62 L_{dn} . Federal agencies are beginning to recognize the importance of noise in children's welfare. The HUD Healthy Homes Initiative has, at least, mentioned noise as a "potential hazard" for children, even though it will not provide funding in this area [39]. The Access Board, an independent Federal agency that develops minimum guidelines and requirements for standards issued under the Americans with Disabilities Act (ADA), has embraced the Acoustical Society initiative for an American National Standards Institute standard on classroom acoustics. This initiative may raise awareness of noise issues within the Department of Education. Finally, FICAN has responded to public comments by funding a symposium on the effects of aircraft noise on children's learning in February 2000, and, currently, is funding a study of the effectiveness of noise control in schools near airports.

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¹ The opinions expressed in this paper are those of the author. They do not represent a position of the U.S. Army, Department of Defense or Federal Interagency Committee on Aviation Noise

Chapter III

THE REQUIRED ELEMENTS OF THE GENERAL PLAN

Government Code Section 65302 lists seven elements cities and counties must include in their general plans:

land use, circulation, housing, conservation, open space, noise, and safety.

This chapter reviews those requirements, with notes

on their origin, purpose, and scope. Key To Abbreviations In Chapter 3

The following symbols are used in this chapter to identify elements which might also address a particular issue.

(LU) - Land Use

(CI) - Circulation

(H) - Housing

(CO) - Conservation

(OS) - Open Space

(N) - Noise

(S) - Safety

(Map) or (diagram) indicates information that can be shown on a map or diagram.

INTRODUCTION

Government Code Section 65300 requires every city and county to draw up and adopt "a comprehensive, longterm general plan for the physical development" of the community. At a minimum such a plan must cover specified provisions addressed by each of the seven elements listed in California Government Code Section 65302. The purpose of this chapter is to discuss in detail the contents of each of these seven elements. This chapter examines pertinent California Code sections as well as court and Attorney General interpretations. For each element relevant issues are identified and ideas for data and analysis and for development policies are listed.

Noise Element

Background

The purpose of the noise element is to limit the exposure of the community to excessive noise levels. In 1976, the Department of Health Services issued Noise Element Guidelines (Health and Safety Code §46050.1) followed shortly thereafter by a model noise ordinance. In 1984, revisions to the general plan statutes made extensive changes to the noise element requirements (Chap. 1009, Stats. 1984). These revisions shortened the list of issues required by statute and gave flexibility to local governments in analyzing the issues and subjects pertinent to the local planning area.

Local governments must "analyze and quantify" noise levels and the extent of noise exposure through actual measurement or the use of noise modeling. Technical data relating to mobile and point sources must be collected and synthesized into a set of noise control policies and programs that "minimizes the exposure of community residents to excessive noise." Noise level contours must be mapped and the conclusions of the element used as a basis for land use decisions. The element must include implementation measures and possible solutions to existing and foreseeable noise problems. Furthermore, the policies and standards must be sufficient to serve as a guideline for compliance with sound transmission control requirements. The noise element directly correlates to the land use, circulation, and housing elements.

The noise element is to be used to guide decisions concerning land use and the location of new roads and transit facilities since they are commonly sources of excessive noise levels. The noise levels from existing land uses including mining, agricultural, and industrial activities must be closely analyzed to ensure compatibility, especially where residential and other sensitive receptors have encroached into areas previously occupied by these uses.

Caltrans administers several freeway noise control programs. In general, these are applied to residential and school uses that preexisted the particular freeway. For instance, noise attenuating walls are installed along the freeway frontages of qualified residential development under the "New Construction or Reconstruction" and "Community Noise Abatement" programs. In addition, there are still a number of schools adjacent to freeways which have qualified for the "School Noise Abatement Program" funds for the acoustical attenuation of classrooms.

Local airports are subject to the noise requirements of the Federal Aviation Administration and noise standards under Title 21, §5000 et. seq., of the California Code of Regulations. These standards are designed to cause the airport proprietor, aircraft operator, local governments, pilots, and the Department of Transportation to work cooperatively to diminish noise problems. The Federal Aviation Act however, preempts local regulations controlling noise at the airport itself, as well as limiting arrival and departure times of jet aircraft flights. (See *City of Burbank v. Lockheed Air Terminal* (1973) 93 S. Ct 1854 and 53 Ops. Cal. Atty. Gen 75 (1970)).

The Caltrans Office of Transportation Laboratory publishes the *Caltrans Noise Manual* and numerous reports on mitigating transportation noise. *The Airport Land Use Planning Handbook* published by Caltrans' Aeronautics program includes noise information relating to airports.

Court and Attorney General Interpretations

As of this writing, no noise element prepared since the statute's 1984 revision has been the subject of an appellate court decision or Attorney General opinion. However, three past appellate court cases remain germane.

The content of the noise element was one of the central issues in *Camp v. County of Mendocino* (1981) 123 Cal.App.3d 334. Mendocino County's element did not quantify noise levels, did not include an inventory of current and expected noise exposure (noise contours), and was apparently not supported by monitoring data. As a result, the court found the element to be inadequate. The county's argument that the existing element was sufficient for a quiet rural county was not persuasive of the court, since the statute was neither subjective nor geographical. The *Camp* decision underscores the importance of comprehensive data collection and analysis.

The decision in *Neighborhood Action Group v. County of Calaveras* (1984) 156 Cal.App.3d 1176, highlights the importance of including the noise element in the land use decision making process. In this instance, where a conditional use permit for a surface mining operation was at issue, the appeal court stated: "a quantitative inventory of existing transportation noise must be compared with that added by a particular project. The aggregate noise level must be measured against policy statements and standards required to be in the general plan." It is apparent that the noise element must be

adequate to serve as the basis for analyzing projects which may potentially increase noise levels.

Pursuant to the decision in *Guardians of Turlock's Integrity v. City of Turlock* (1983) 149 Cal.App.3d 584, a general plan is invalid if it lacks a noise element. Furthermore, in the words of the court: "unless the general plan sets noise guidelines, an EIR addressing noise issues lacks meaning."

Relevant Issues:

The noise element should cover those issues and sources of noise relevant to the local planning area. The element should utilize the most accurate and up-to-date information available to reflect the noise environment, the stationary sources of noise, predicted levels of noise, and the impacts of noise on local residents. It should be as detailed as necessary to describe the local situation and offer solutions to local noise problems. The issues to be addressed by the noise element include the following:

- Identification and appraisal of major noise sources
 - Mobile Noise Sources
 - Stationary Noise Sources
- Existing and projected levels of noise and noise contours for major noise sources
- Inventory of existing and projected land use and locational relationship to existing and projected noise sources. (map)(LU)
- Inventory of existing and proposed sensitive receptors including,
 - Hospitals
 - Convalescent homes
 - Schools
 - Churches
 - Sensitive wildlife habitat including the habitat of rare, threatened, or endangered species
- Determination of the extent of "noise problems in the community"
 - Survey of community to determine location and extent
 - Review police records for noise related complaints and locations
- Selection and imposition of methods of noise attenuation and the protection of residences and other sensitive receptors from excess noise.
- Selection of implementation measures and possible solutions that address existing and foreseeable noise problems.

Ideas for Data and Analysis:

The following are suggested topics for data collection and analysis:

Identification and appraisal of major noise sources

- Identify major noise sources including:
 - Highways and freeways
 - Primary arterials and major local streets
 - Passenger and freight on-line railroad operations and ground rapid transit systems
 - Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation
 - Local industry, including, but not limited to, railroad classification yards
 - Other ground stationary noise sources identified by local agencies as contributing to the community noise environment
- Appraise major noise sources and the extent of the problems they create for the community currently and in the future

Analysis and quantification of the local noise environment

- Select the method of noise measurement or modeling to be used in the noise element
- Measure major sources of noise including, but not limited to, highways and freeways, arterial and major streets, railroads, railroad yards, ground rapid transit, airports and aviation-related sources, industrial plants, and other stationary ground sources
- Map noise level contours, expressed in CNEL or Ldn, for the area surrounding each of the identified noise sources
- Project future noise sources, noise levels, and anticipated impacts upon existing and proposed land uses
- Analyze the current and future impacts on community residents of noise emanating from the identified sources (LU)
- Analyze current and predicted levels of transportation noise consistent with the requirements of the Federal Intermodal Surface Transportation Efficiency Act (CI)

Minimizing Noise Exposure

- Identify local noise problems and areas of conflict between noise sources and sensitive uses.
- Adopt noise impact and attenuation standards, consistent with the Noise Element Guidelines and the Uniform Building Code.
- Adopt policies, plan proposals, and implementation programs for mitigating noise impacts on residential areas, correlated with the land use and circulation elements. (LU, CI)

Ideas for Development Policies:

The following are types of development policies that may be contained in a local noise element as relevant. The local agency should adopt policies for each of the issues identified in the element which:

- Guide zoning and development through the adoption of specified noise mitigation including provisions for increased building setbacks, buffer areas, compatibility zoning, and other land use strategies (LU)
- Establish local standards and guidelines for noise evaluation including baseline specifications
- Evaluate new residential and other sensitive uses for consistency with noise standards in areas adjacent to major sources of noise (LU)
- Review all land use and development proposals for compliance with noise and land use compatibility standards
- Evaluate the effects of noise on the community and provide efficient and effective means to mitigate or avoid future excessive exposure
- Protect existing developed areas from excessive noise levels
- Guide the location and design of transportation facilities to maintain acceptable noise levels (CI, LU)
- Control stationary noise at the source through the use of insulation, berms, building design/orientation, buffer strips, staggered operating hours, and other techniques (LU, OS)
- Minimize noise exposure around airports in correlation with the policies of the local Airport Land Use Plan and airport noise standards pursuant to Title 21, §5000 et. seq., California Code of Regulations (LU)
- Correlate noise element concerns with objectives,

policies, and plan proposals of the land use, circulation, and open-space elements in order to minimize community noise exposure

- Establish noise standards for reviewing development which is sensitive to noise
- Achieve noise compatibility between residential, commercial, industrial and other surrounding land uses

Technical Assistance:

The following noise prediction models can be used to address transportation and aircraft noise in the noise element:

- Federal Highway Administration: Traffic Noise Model, Version 1.0. The noise model can calculate noise levels using new acoustical algorithms and emission levels for five standard vehicle types: automobiles, medium trucks, heavy trucks, buses, and motorcycles. For more information contact: Federal Highway Administration, Research and Development, Turner-Fairbank Highway Research Center, 6300 Georgetown Pike, McLean, Virginia 22101-2296, (202) 366-2073.
- Further information regarding these noise models may be obtained from the Federal Aviation Administration, Office of Environment and Energy, Technology Division 800 Independence Avenue, SW, Washington D.C. 205591 or (<http://aee.hq.faa.gov/aee-100/>)

The following state agencies may provide information or assistance for the preparation of the *noise element*: California Department of Transportation (Environmental Engineering <http://www.dot.ca.gov/>) and the Office of Planning and Research.

Legislative Milestones In California's Planning laws

- 1907** First Subdivision Map Act enacted.
- 1915** Cities authorized to create planning commissions.
- 1917** Initial zoning law enacted.
- 1927** Cities and counties authorized to prepare master plans (general plans).
- 1929** Adoption of master plans made mandatory for those cities and counties establishing planning commissions (based largely on the 1928 U.S. Department of Commerce Model Standard City Planning Enabling Act). Subdivision Map Act revised enabling local governments to require dedication of improvements.
- 1937** All cities and counties required to adopt master plans. Cities and counties authorized to prepare "precise plans" (similar to specific plans of today) to implement the master plan.
- 1953** Planning law recodified into Government Code §65000, et seq.
- 1955** Land use and circulation elements required in the general plan.
- 1965** Planning and Zoning Law reorganized. Cities and counties authorized to prepare "specific plans."
- 1967** Housing element required in the general plan (effective July 1, 1969).
- 1970** Conservation and open-space elements required in the general plan.
- 1971** Safety, seismic safety, noise, and scenic highway elements required in the general plan. Zoning and subdivision approvals required to be consistent with the adopted general plan.
- 1971** Statements of legislative intent clarify the internal consistency requirement of the general plan.
- 1974** Subdivision Map Act recodified from the Business and Professions Code into the State Planning and Zoning Law.
- 1980** Detailed content standards and adoption procedures added to the housing element requirement (effective October 11, 1981).
- 1984** Planning statutes substantially revised, seismic safety and scenic highways elements dropped as required elements, seismic safety merged with safety element (AB 2038, Chap. 1009).

This summary does not include other major planning and land use statutes that have been important in shaping local planning, such as the California Environmental Quality Act, the Williamson Act, the California Coastal Act, and the Cortese-Knox Local Government Reorganization Act of 1985.

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CHAPTER 1

Content of the General Plan

All statutory references are to the California Government Code unless otherwise noted.

INTRODUCTION

CALIFORNIA state law requires each city and county to adopt a general plan “for the physical development of the county or city, and any land outside its boundaries which... bears relation to its planning (§65300).” The role of a community’s general plan is to act as a “constitution;” a basis for rational decisions regarding a city’s or county’s long-term physical development. The general plan expresses the community’s development goals and embodies public policy relative to the distribution of future land uses, both public and private.

As will be discussed in Chapter 5, the policies of the general plan are intended to underlie most land use decisions. Pursuant to state law, subdivisions, capital improvements, development agreements, and many other land use actions must be consistent with the adopted general plan. In counties and general law cities, zoning and specific plans are also required to conform to the general plan.

Preparing, adopting, implementing, and maintaining a general plan serves to:

- Identify the community’s land use, circulation, environmental, economic, and social goals and policies as they relate to land use and development.
- Provide a basis for local government decision making, including decisions on development approvals and exactions.
- Provide citizens with opportunities to participate in the planning and decision making processes of their community.
- Inform citizens, developers, decision makers, and other cities and counties of the ground rules that guide development within the community.

The general plan bridges the gap between community values, visions and objectives, and physical decisions such as subdivisions and public works projects.

COMPREHENSIVENESS

Every city and county must adopt “a comprehensive, long term general plan” (§65300). The general plan must cover a local jurisdiction’s entire planning area, and address the broad range of issues associated with a city’s or county’s development.

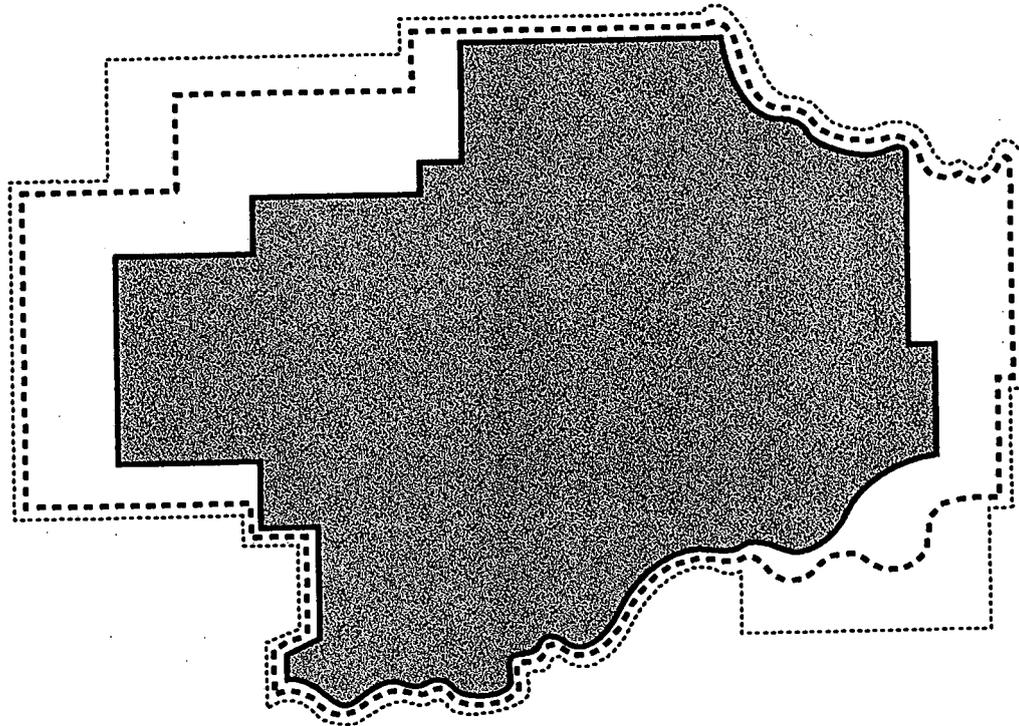
Geographic Comprehensiveness

The plan must cover the territory within the boundaries of the adopting city or county as well as “any land outside its boundaries which in the planning agency’s judgment bears relation to its planning” (§65300). For cities, this means all territory within the city limits, both public and private. Counties must address all unincorporated areas.

When establishing its planning area, each city should consider using its sphere of influence as a starting point. The Local Agency Formation Commission (LAFCO) in every county adopts a sphere of influence for each city to represent “the probable physical boundaries and service area” of that city (§56076). Although there is no direct requirement that the sphere and the planning area match, the former provides a convenient measure of the city’s region of interest.

There are two types of cities in California—**charter** and **general law**. While state planning requirements apply equally to all counties and general law cities, the state constitution and statutes allow chartered cities greater leniency in satisfying their general plan responsibilities. Specifically, charter cities are exempt from the provision of state law that requires zoning to be consistent with the land use element of the general plan except where required by charter, ordinance or in cities with a population over 2 million. (§65803, 65860; *City of Irvine v. Irvine Citizens Against Overdevelopment* (1994) 25 Cal. App 4th 868).

Theoretical Relationship Between a City's Planning Area and Sphere of Influence



Current City Limits:

Encompasses incorporated territory where land use is controlled by the city.



City's "Sphere-of-Influence" adopted by the LAFCO:

Encompasses incorporated and unincorporated territory which is the city's ultimate service area.



City's Planning Area Boundary:

Encompasses incorporated and unincorporated territory bearing a relation to the city's planning. Where desirable the planning area may extend beyond the sphere-of-influence.

Counties should consider the general plans of their cities in their own plans. City planning policies may be reflected in the county plan in various ways. The county plan may discuss city policies in the broad context of countywide policy. It may summarize city policies while laying out the county policies for the surrounding unincorporated area. It may examine city policies in the context of community plans that it has adopted for the surrounding unincorporated areas.

In addition, since issues are not confined to political

boundaries, the law provides for planning outside of the jurisdiction's territory. Cooperative extraterritorial planning can be used to guide the orderly and efficient extension of services and utilities, ensure the preservation of open-space, agricultural, and resource conservation lands, and establish consistent standards for development in the plans of adjoining jurisdictions.

Cities and counties should work together to delineate planning areas and may establish formal agreements for processing development proposals. For ex-

ample, Yolo County delegates a portion of its land use authority to the City of Davis within areas surrounding the city. As urbanization occurs and adjoining cities expand, the potential for conflict between cities competing for the same lands increases. Inter-city cooperation in establishing planning areas can proactively help to avoid such disputes.

Viewing the local general plan in its regional context is important. Traditionally, the concept of "community" encompassed only a local entity—the city or county. With increasing urbanization, the growing interdependence of local governments, particularly in metropolitan areas, and important issues such as transportation, air quality, and floodplain management that transcend local boundaries, the regional perspective should be considered. Cities and counties should identify risks from natural hazards which extend across jurisdictional boundaries, then use any available data from watershed-based floodplain management, mapped earthquake faults, or high fire hazard areas as planning tools to address any significant issues. Each local planning agency carries a responsibility to coordinate its general plan with regional planning efforts as much as possible.

Regional planning efforts typically address single issues or have indirect links to the local planning process. Plans prepared by councils of government and other designated regional agencies provide the basis for allocating federal and state funds used for specific items such as transportation facilities. Other regional plans, such as those for air or water quality, spell out measures which local governments must institute in order to meet federal or state standards for the region. Still others, such as regional housing allocation plans, measure each local government's responsibility for satisfying a specific share of regional needs. Some regional agencies have put together useful information on seismic safety and other planning issues that can be helpful.

The Legislature has mandated consideration of certain regional impacts. For example, if a city or county adopts or amends a mandatory general plan element limiting the number of residential units which may be constructed on an annual basis, it must explain that action. The city or county must make specific findings concerning: 1) the efforts it has made to implement its housing element, and 2) the public health, safety, and welfare considerations that justify reducing housing opportunities in the region (§65302.8). Further, cities and counties must balance the housing needs of the region against the needs of their residents for public services and the available fiscal and environmental resources (§65863.6, 66412.3). In addition, the Housing

Element must provide actions programs to accommodate the locality's regional fair share of housing (§65583, 65584).

Local general plans should recognize the city's or county's regional role if regional needs are to be satisfied, federal and state standards met, and coordination achieved in the location of public facilities. Accordingly, general plans should include a discussion of the extent to which the general plan's policies, standards, and proposals correspond to regional plans and the plans of adjoining communities. A city or county may need to reexamine its own general plan when its neighbors make important changes to their plans.

Some of the regional Councils of Government have undertaken major regional and subregional planning initiatives. San Diego County Association of Governments has adopted a comprehensive regional plan whose policies its constituent cities and county have adopted into their own general plans. The Association of Bay Area Governments has sponsored subregional planning efforts in Sonoma County and in the Tri-Valley Area that may eventually be reflected in local general plans.

Issue Comprehensiveness

A general plan must address a broad range of issues. Under the "shoe fits" doctrine discussed in Chapter 3, the plan should focus on those issues that are relevant to the planning area (§65301(c)). The plan must address the jurisdiction's physical development, such as general locations, appropriate mixtures, timing and extent of land uses and supporting infrastructure. The broad scope of physical development issues may range from appropriate areas for building factories to open-space for preserving endangered species (see Chapter 3 for examples). This may include not only those issues described in the planning statutes, but regional issues as well.

In the 1960s, planners began to assert that land use decisions have not only immediate and future physical environmental impacts, but social and economic impacts, as well. Because a general plan represents the most comprehensive local expression of the general welfare as it relates to land use regulation, recognizing social and economic concerns in the general plan may be quite appropriate. Social concerns are certainly recog-

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APPENDIX A

Guidelines for the Preparation and Content of the Noise Element of the General Plan

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I. INTRODUCTION

The Noise Element of the General Plan provides a basis for comprehensive local programs to control and abate environmental noise and to protect citizens from excessive exposure. The fundamental goals of the Noise Element are:

- To provide sufficient information concerning the community noise environment so that noise may be effectively considered in the land use planning process. In so doing, the necessary groundwork will have been developed so that a community noise ordinance may be utilized to resolve noise complaints.
- To develop strategies for abating excessive noise exposure through cost-effective mitigating measures in combination with zoning, as appropriate, to avoid incompatible land uses.
- To protect those existing regions of the planning area whose noise environments are deemed acceptable and also those locations throughout the community deemed "noise sensitive."
- To utilize the definition of the community noise environment, in the form of CNEL or Ldn noise contours as provided in the Noise Element for local compliance with the State Noise Insulation Standards. These standards require specified levels of outdoor to indoor noise reduction for new multi-family residential constructions in areas where the outdoor noise exposure exceeds CNEL (or Ldn) 60 dB.

The 1976 edition of the Noise Element Guidelines, prepared by the State Department of Health Services (DOHS), was a result of SB 860 (Beilenson, 1975), which became effective January 1, 1976. SB 860, among other things, revised and clarified the requirements for the noise element of each city and county general plan and gave the DOHS authority to issue guidelines for compliance thereto. Compliance with the 1976 version of these guidelines was mandated only for those noise elements which were not submitted to the Office of Planning and Research by the effective date of SB 860 and to subsequent revisions of previously submitted noise elements.

A comparison between the 1976 Noise Element Guidelines and this revised edition will not reveal substantial changes. The basic methodology advanced by that previous edition remains topical. Where necessary, code references have been updated and the text revised to reflect statutory changes.

II. DEFINITIONS

Decibel, dB: A unit of measurement describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

A-Weighted Level: The sound level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

L10: The A-weighted sound level exceeded ten percent of the sample time. Similarly, L50, L90, etc.

Leq: Equivalent energy level. The sound level corresponding to a steady state sound level containing the same total energy as a time varying signal over a given sample period. Leq is typically computed over 1, 8, and 24-hour sample periods.

CNEL: Community Noise Equivalent Level. The aver-

age equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7 p.m. to 10 p.m. and after addition of 10 decibels to sound levels in the night from 10 p.m. to 7 a.m.

Ldn: Day-Night Average Level. The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of 10 decibels to sound levels in the night after 10 p.m. and before 7 a.m.

Note: CNEL and Ldn represent daily levels of noise exposure averaged on an annual or daily basis, while Leq represents the equivalent energy noise exposure for a shorter time period, typically one hour.

Noise Contours: Lines drawn about a noise source indicating equal levels of noise exposure. CNEL and Ldn are the metrics utilized herein to describe annoyance due to noise and to establish land use planning criteria for noise.

Ambient Noise: The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Intrusive Noise: That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence, and tonal or informational content as well as the prevailing noise level.

Noisiness Zones: Defined areas within a community wherein the ambient noise levels are generally similar (within a range of 5 dB, for example). Typically, all other things being equal, sites within any given noise zone will be of comparable proximity to major noise sources. Noise contours define different noisiness zones.

III. NOISE ELEMENT REQUIREMENTS

Government Code Section 65302(f):

A noise element shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

- (1) Highways and freeways.
- (2) Primary arterials and major local streets.
- (3) Passenger and freight on-line railroad operations

and ground rapid transit systems.

(4) Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.

(5) Local industrial plants, including, but not limited to, railroad classification yards.

(6) Other ground stationary sources identified by local agencies as contributing to the community noise environment.

Noise contours shall be shown for all of these sources and stated in terms of community noise equivalent level (CNEL) or day-night average level (Ldn). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified in paragraphs (1) to (6), inclusive.

The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise.

The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards.

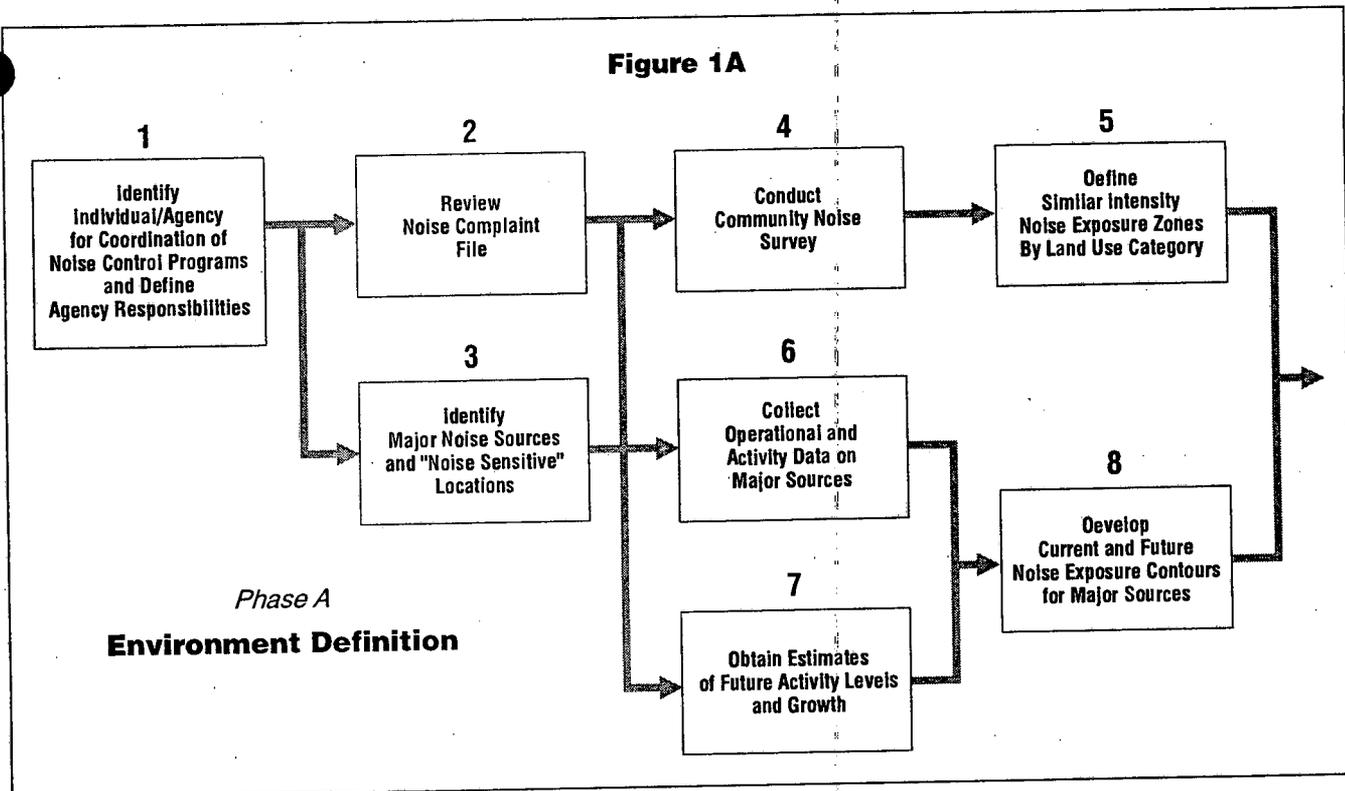
IV. PROCESS OF NOISE ELEMENT DEVELOPMENT

The sequential steps for development of a noise element as an integral part of a community's total noise control program are illustrated in the flow diagram of figures 1A and 1B. The concept presented herein utilizes the noise element as the central focus of the community's program and provides the groundwork for all subsequent enforcement efforts. The process may be described in terms of four phases:

- A. Noise Environment Definition
- B. Noise Compatible Land Use Planning
- C. Noise Mitigation Measures
- D. Enforcement

These phases encompass a total of eighteen defined tasks, the first thirteen of which relate directly to the statutory requirements contained in §65302(f), while the remainder relate to critical supportive programs (noise ordinances, etc.). Citations from §65302(f) are contained within quotation marks.

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A. Noise Environment Definition

The purpose of this phase is to adequately identify and appraise the existing and future noise environment of the community in terms of Community Noise Equivalent Level (CNEL) or Day-Night Average Level (Ldn) noise contours for each major noise source and to divide the city or county into noise zones for subsequent noise ordinance application.

Step 1:

Identify a specific individual or lead agency within the local government to be responsible for coordination of local noise control activities. This individual or agency should be responsible for coordinating all intergovernmental activities and subsequent enforcement efforts.

Step 2:

Review noise complaint files as compiled by all local agencies (police, animal control, health, airport, traffic department, etc.) in order to assess the following:

- (1) Location and types of major offending noise sources.
- (2) Identification of noise sensitive areas and land uses.
- (3) Community attitudes towards specific sources of noise pollution.
- (4) Degree of severity of noise problems in the community.

- (5) Relative significance of noise as a pollutant.

Step 3:

Specifically identify major sources of community noise based upon the review of complaint files and interagency discussion and the following statutory subjects:

- (1) Highways and freeways.
- (2) Primary arterials and major local streets.
- (3) Passenger and freight on-line railroad operations and ground rapid transit systems.
- (4) Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.
- (5) Local industrial plants, including, but not limited to, railroad classification yards.
- (6) Other ground stationary noise sources identified by local agencies as contributing to the community noise environment. (Government Code §65302(f))

In addition, the land uses and areas within the community that are noise sensitive should be identified at the same time.

Step 4:

Given the identification of major noise sources and an indication of the community's attitude toward noise pollution (when available), it is advisable to conduct a

community noise survey. The purposes of the survey are threefold:

First and foremost, to define by measurement the current noise levels at those sites deemed noise sources and to establish noise level contours around them. The noise contours must be expressed in terms of CNEL or Ldn.

Second, the collected data will form the basis for an analysis of noise exposure from major sources.

Finally, the survey should define the existing ambient noise level throughout the community. Intrusive noises, over and above this general predetermined ambient level, may then be controlled through implementation of a noise ordinance.

Step 5:

Given the definition of existing ambient noise levels throughout the community, one may proceed with a classification of the community into broad regions of generally consistent land use and similar noise environments. Because these regions will be varying distances from identified major noise sources, the relative levels of environmental noise will be different from one another. Therefore, subsequent enforcement efforts and mitigating measures may be oriented towards maintaining quiet areas and improving noisy ones.

Step 6:

Directing attention once again to the major noise sources previously identified, it is essential to gather operations and activity data in order to proceed with the analytical noise exposure prediction. This data is somewhat source specific, but generally should consist of the following information and be supplied by the owner/operator of the source:

- (1) Average daily level of activity (traffic volume, flights per day, hours of operation, etc.).
- (2) Distribution of activity over day and night time periods, days of the week, and seasonal variations.
- (3) Average noise level emitted by the source at various levels of activity.
- (4) Precise source location and proximity to noise impacted land uses.
- (5) Composition of noise sources (percentage of trucks on highway, aircraft fleet mix, industrial machinery type, etc.).

Step 7:

In addition to collecting data on the variables affecting noise source emission for the existing case, future values for these parameters need to be assessed. This is

best accomplished by correlating the noise element with other general plan elements (i.e. land use, circulation, housing, etc.) and regional transportation plans and by coordination with other responsible agencies (Airport Land Use Commission, Caltrans etc.).

Step 8:

Analytical noise exposure modeling techniques may be utilized to develop source-specific noise contours around major noise sources in the community.

"The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques..."

(§65302(f))

Simplified noise prediction methodologies are available through the State Department of Health Services for highway and freeway noise, railroad noise, simple fixed stationary and industrial sites, and general aviation aircraft (with less than twenty percent commercial jet aircraft activity — two engine jet only). Noise contours for larger airport facilities and major industrial sites are sufficiently complex that they must be developed via sophisticated computer techniques available through recognized acoustical consulting firms. (Airport contours, generally, have already been developed in accordance with requirements promulgated by the Division of Aeronautics: Noise Standards — Sections 5000, et seq. of Title 21, California Code of Regulations.)

Although considerable effort may go into developing noise contours which, in some instances, utilize rather sophisticated digital programming techniques, the present state-of-the-art is such that their accuracy is usually no better than +/- 3 dB. In fact, the accuracy of the noise exposure prediction decreases with increasing distance from the noise source. In the near vicinity of the source, prediction accuracy may be within the range of +/- 1 dB, while at greater distances this may deteriorate to +/- 5 dB or greater. At greater distances, meteorological and topographic effects, typically not totally accounted for in most models, may have significant influence. Thus, while dealing with the concept of noise contours, it is best not to think of them as absolute lines of demarcation on a map (such as topographical contours), but rather as bands of similar noise exposure.

In addition to assessment of the present day noise environment, it is recommended that the noise exposure data be projected through the time horizon of the general plan. The noise element should be updated and corrected every five years, or sooner as is necessary, and, at that time, the forecasted noise exposure be projected an additional five years.

Phase B. Noise Compatible Land Use Planning

A noise planning policy needs to be rather flexible and dynamic to reflect not only technological advances in noise control but also economic constraints governing application of noise control technology and anticipated regional growth and demands of the community. In the final analysis, each community must decide the level of noise exposure its residents are willing to tolerate within a limited range of values below the known levels of health impairment.

Step 9:

Given the definition of the existing and forecasted noise environment provided by the Phase A efforts, the locality preparing the noise element must now approach

the problem of defining how much noise is too much. Guidelines for noise compatible land use are presented in Figure 2. The adjustment factors given in Table 1 may be used in order to arrive at noise acceptability standards which reflect the noise control goals of the community, the particular community's sensitivity to noise (as determined in Step 2), and their assessment of the relative importance of noise pollution.

Step 10:

As a prerequisite to establishing an effective noise control program, it is essential to know, in quantitative terms, the extent of noise problems in the community. This is best accomplished by determining, for each major noise source around which noise contours have

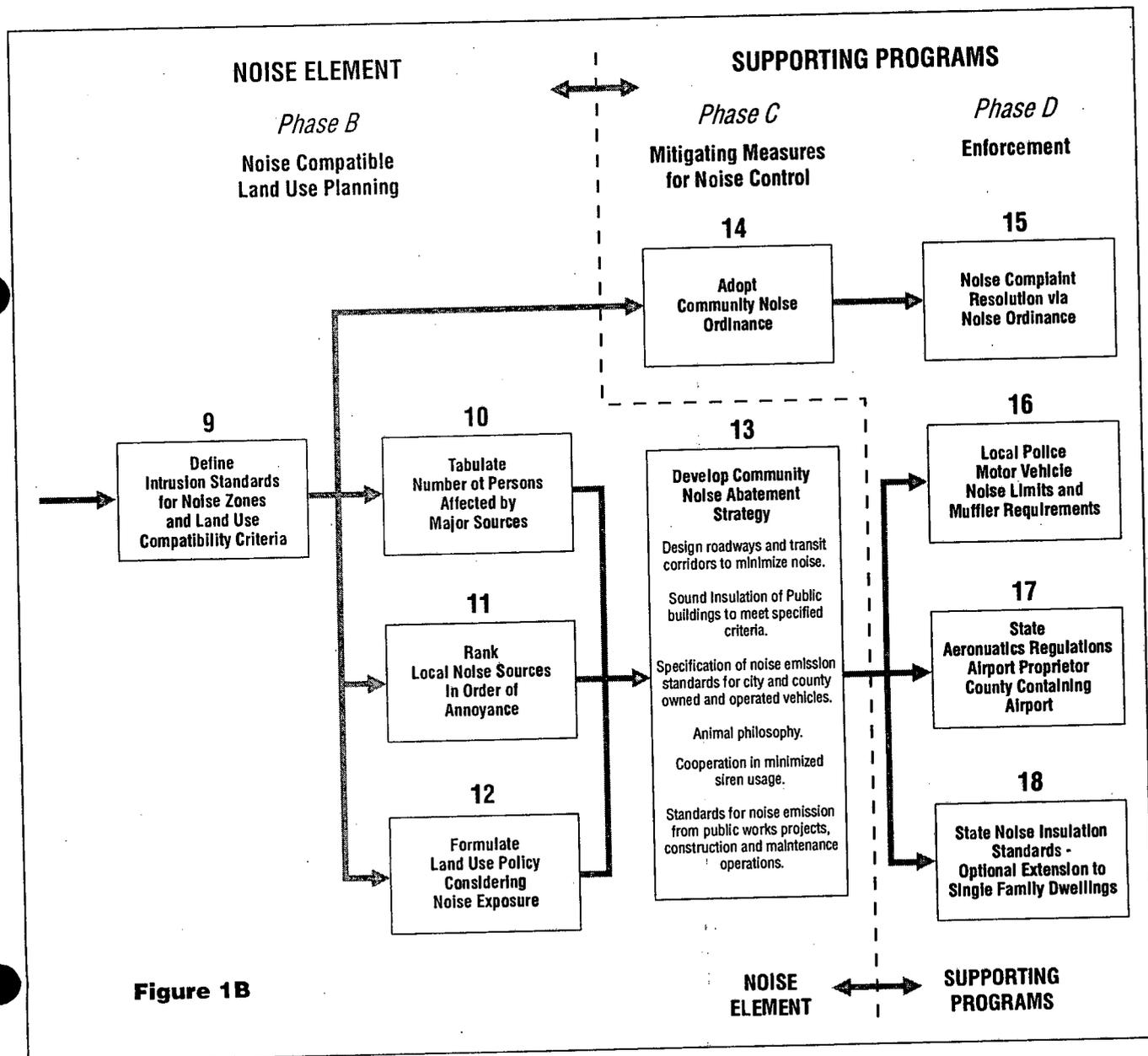


Figure 1B

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been developed, the number of community residents exposed and to what extent. It is also useful to identify those noise sensitive land uses whose noise exposure exceeds the recommended standards given in Figure 2. The exposure inventory can be accomplished by using recent census data, adjusted for regional growth, and tabulating the population census blocks within given noise contours.

Step 11:

Once the noise exposure inventory is completed, the relative significance of specific noise sources in the community (in terms of population affected) will become apparent. The local agencies involved may wish to use this information to orient their noise control and abatement efforts to achieve the most good. Clearly, control of certain major offending sources will be beyond the jurisdiction of local agencies; however, recog-

FIGURE 2

Land Use Category	Community Noise Exposure <i>L_{dn} or CNEL, dB</i>					
	55	60	65	70	75	80
Residential - Low Density Single Family, Duplex, Mobile Homes	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Residential - Multi. Family	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Transient Lodging - Motels, Hotels	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Schools, Libraries, Churches, Hospitals, Nursing Homes	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Auditoriums, Concert Halls, Amphitheaters	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Sports Arena, Outdoor Spectator Sports	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Playgrounds, Neighborhood Parks	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Office Buildings, Business Commercial and Professional	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Industrial, Manufacturing, Utilities, Agriculture	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded

INTERPRETATION:



Normally Acceptable
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.



Conditionally Acceptable
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.



Normally Unacceptable
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.



Clearly Unacceptable
New construction or development should generally not be undertaken.

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Table 1

<i>Type of Correction</i>	<i>Description</i>	<i>Amount of Correction to be Added to Measured CNEL in dB</i>
Seasonal Correction	Summer (or year-round operation)	0
	Winter only (or windows always closed)	- 5
Correction for Outdoor Residual Noise Level	Quiet suburban or rural community (remote from large cities and from industrial activity and trucking).	+ 10
	Quiet suburban or rural community (not located near industrial activity).	+ 5
	Urban residential community (not immediately adjacent to heavily traveled roads and industrial areas).	0
	Noisy urban residential community (near relatively busy roads or industrial areas).	- 5
	Very noisy urban residential community.	- 10
Correction for Previous Exposure and Community Attitudes	No prior experience with the intruding noise.	+ 5
	Community has had some previous exposure to intruding but little effort is being made to control the noise. This correction may also be applied in a situation where the community has not been exposed to the noise previously, but the people are aware that bona fide efforts are being made to control the noise.	0
	Community has had considerable previous exposure to the intruding noise and the noise maker's relations with the community are good.	- 5
	Community aware that operation causing noise is very necessary and it will not continue indefinitely. This correction can be applied for an operation of limited duration and under emergency circumstances.	- 10
Pure Tone or Impulse	No pure tone or impulsive character.	0
	Pure Tone or impulsive character present.	+ 5

dition of these limitations should prompt more effective land use planning strategies.

Step 12:

A major objective of the noise element is to utilize this information to ensure noise compatible land use planning:

"The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element

that minimizes the exposure of community residents to excessive noise." (§65302(f))

The intent of such planning is to:

(1) Maintain those areas deemed acceptable in terms of noise exposure.

(2) Use zoning or other land use controls in areas with excessive noise exposure to limit uses to those which are noise compatible and to restrict other less compatible uses.

Phase C. Noise Mitigation Measures

Step 13:

Based upon the relative importance of noise sources in order of community impact and local attitudes towards these sources, "[t]he noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any" (§65302(f)).

Selection of these noise mitigating measures should be coordinated through all local agencies in order to be most effective. Minimization of noise emissions from all local government-controlled or sanctioned activities should be a priority item. This includes low noise specifications for new city or county owned and operated vehicles (and noise reduction retrofitting where economically possible) and noise emission limits on public works projects. Local governments should insure that public buildings (especially schools) are sufficiently insulated to allow their intended function to be uninterrupted by exterior noise. Local agencies can work with State and Federal bodies to minimize transportation noise, primarily through transit way design, location or configuration modifications.

Additional measures might include such policies as limitation of siren usage by police, fire, and ambulance units within populated areas. Animal control units may be encouraged to minimize barking dog complaints through use of an improved public relations campaign termed "Animal Philosophy." This involves working with pet owners to determine why the dog barks and attempting solutions rather than just issuing citations. Local zoning and subdivision ordinances may require the use of noise reducing building materials or the installation of sound insulating walls along major roads in new construction and subdivisions.

In general, local noise reduction programs need to address the problems specific to each community, with the ultimate goals being the reduction of complaint frequency and the provision of a healthful noise environment for all residents of the community.

The following steps are beyond the scope of the noise element requirements, but pertain to coordination with other state noise control programs and achievement of the goals set forth in the noise element through development of an active local noise control effort.

Step 14:

While the noise element identifies problem areas and seeks to develop medium and long-range solutions to them, a community noise ordinance is the only viable

instrument for short-term or immediate solutions to intrusive noise. A model noise ordinance which may be tailored to the specific needs of a given community by simply incorporating those sections deemed most applicable has been developed by the Department of Health Services. The model ordinance also suggests a cure for non-stationary or transient types of noise events, for which noise contours are generally meaningless.

Phase D. Enforcement

To adequately carry out the programs identified in the noise element and to comply with State requirements for certain other noise control programs, specific enforcement programs are recommended at the local level.

Step 15:

Adopt and apply a community noise ordinance for resolution of noise complaints.

Step 16:

Recent studies have shown that the most objectionable feature of traffic noise is the sound produced by vehicles equipped with illegal or faulty exhaust systems. In addition, such hot rod vehicles are often operated in a manner that causes tire squeal and excessively loud exhaust noise. There are a number of statewide vehicle noise regulations that can be enforced by local authorities as well as the California Highway Patrol. Specifically, §23130, 23130.5, 27150, 27151, and 38275 of the California Vehicle Code, as well as excessive speed laws may be applied to curtail this problem. Both the Highway Patrol and the State Department of Health Services (through local health departments) are available to aid local authorities in code enforcement and training pursuant to proper vehicle sound level measurements.

Step 17:

Commercial and public airports operating under a permit from the Caltrans Aeronautics Program are required to comply with both the State Aeronautics standards governing aircraft noise and also all applicable legislation governing the formation and activities of a local Airport Land Use Commission (ALUC). The function of the ALUC is, among other things, to develop a plan for noise compatible land use in the immediate proximity of the airport. The local general plan must be reviewed for compatibility with this Airport Land Use Plan and amended if necessary (Public Utilities Code §21676). Therefore, the developers of the noise element will need to coordinate their activities with the local

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ALUC to ensure that compatible standards are utilized throughout the community and that the noise element develops as part of a coherent master plan, of which the ALUP forms an integral component.

Step 18:

“The adopted noise element shall serve as a guideline for compliance with the State’s noise insulation standards.” (§65302(f))

Recognizing the need to provide acceptable habitation environments, State law requires noise insulation of new multi-family dwellings constructed within the 60 dB (CNEL or Ldn) noise exposure contours. It is a function of the noise element to provide noise contour information around all major sources in support of the sound transmission control standards (Appendix, Chapter 2-35, Part 2, Title 24, California Code of Regulations).

V. RELATIONSHIP OF THE NOISE ELEMENT TO OTHER GENERAL PLAN ELEMENTS

The noise element is related to the land use, housing, circulation, and open-space elements. Recognition of the interrelationship of noise and these four mandated elements is necessary in order to prepare an integrated general plan. The relationship between noise and these four elements is briefly discussed below.

Land Use — A key objective of the noise element is to provide noise exposure information for use in the land use element. When integrated with the noise element, the land use element will show acceptable land uses in relation to existing and projected noise contours. Section 65302(f) of the Government Code states that: “The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise.”

Housing — The housing element considers the provision of adequate sites for new housing and standards for housing stock. Since residential land use is among the most noise sensitive, the noise exposure information provided in the noise element must be considered when planning the location of new housing. Also, State law requires special noise insulation of new multi-family dwellings constructed within the 60 dB (CNEL or Ldn) noise exposure contour. This requirement may influence the location and cost of this housing type. In some cases, the noise environment may be a

constraint on housing opportunities.

Circulation — The circulation system must be correlated with the land use element and is one of the major sources of noise. Noise exposure will thus be a decisive factor in the location and design of new transportation facilities and the possible mitigation of noise from existing facilities in relation to existing and planned land use. The local planning agency may wish to review the circulation and land use elements simultaneously to assess their compatibility with the noise element.

Open-Space — Excessive noise can adversely affect the enjoyment of recreational pursuits in designated open-space. Thus, noise exposure levels should be considered when planning for this kind of open-space use. Conversely, open-space can be used to buffer sensitive land uses from noise sources through the use of setback and landscaping. Open-space designation can also effectively exclude other land uses from excessively noisy areas.

VI. SELECTION OF THE NOISE METRIC

The community noise metrics to be used in Noise Elements are either CNEL or Ldn (as specified in §65302(f)). A significant factor in the selection of these scales was compatibility with existing quantifications of noise exposure currently in use in California. CNEL is the noise metric currently specified in the State Aeronautics Code for evaluation of noise impact at specific airports which have been declared to have a noise problem. Local compliance with the state airport noise standards necessitates that community noise be specified in CNEL. The Ldn represents a logical simplification of CNEL. It divides the day into two weighted time periods (Day — 7a.m. to 10 p.m. and Night — 10 p.m. to 7a.m.) rather than the three used in the CNEL measure (Day — 7a.m. to 7p.m., Evening — 7p.m. to 10 p.m., and Night — 10 p.m. to 7a.m.) with no significant loss in accuracy.

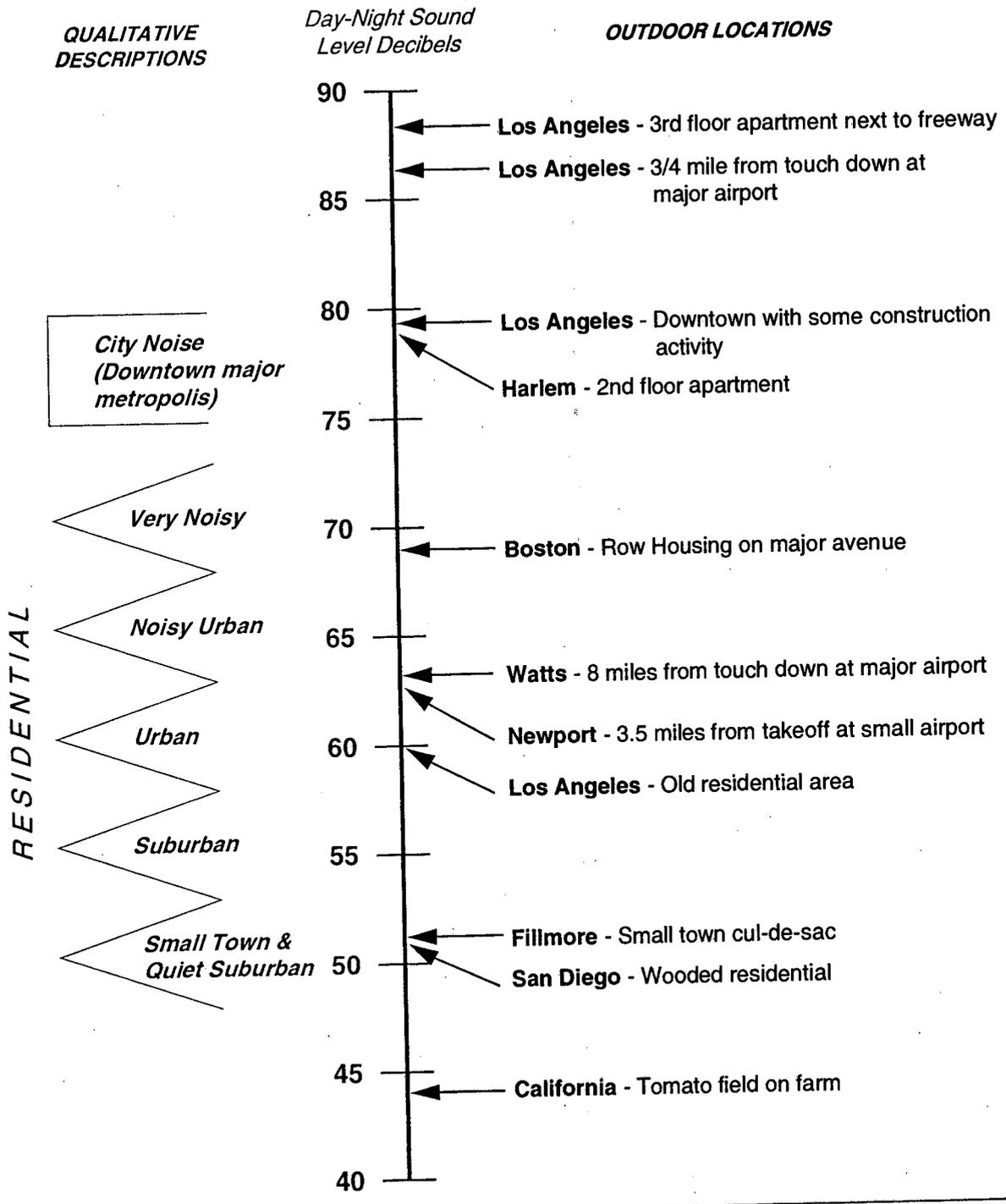
VII. CRITERIA FOR NOISE COMPATIBLE LAND USE

Figure 2 summarizes the suggested use of the CNEL/Ldn metrics for evaluating land use noise compatibility. Such criteria require a rather broad interpretation, as illustrated by the ranges of acceptability for a given land use within a defined range of noise exposures.

Denotation of a land use as “normally acceptable”

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Figure 3



on Figure 2 implies that the highest noise level in that band is the maximum desirable for existing or conventional construction which does not incorporate any special acoustic treatment. In general, evaluation of land use which falls into the "normally acceptable" or "normally unacceptable" noise environments should include

consideration of the type of noise source, the sensitivity of the noise receptor, the noise reduction likely to be provided by structures, and the degree to which the noise source may interfere with speech, sleep, or other activities characteristic of the land use.

Figure 2 also provides an interpretation as to the

suitability of various types of construction with respect to the range of outdoor noise exposure.

The objective of the noise compatibility guidelines in Figure 2 is to provide the community with a means of judging the noise environment which it deems to be generally acceptable. Many efforts have been made to account for the variability in perceptions of environmental noise which exist between communities and within a given community.

Beyond the basic CNEL or Ldn quantification of noise exposure, one can apply correction factors to the measured or calculated values of these metrics in order to account for some of the factors which may cause the noise to be more or less acceptable than the mean response. Significant among these factors are seasonal variations in noise source levels, existing outdoor ambient levels (i.e., relative intrusiveness of the source), general societal attitudes towards the noise source, prior history of the source, and tonal characteristics of the source. When it is possible to evaluate some or all of these factors, the measured or computed noise exposure values may be adjusted by means of the correction factors listed in Table 1 in order to more accurately assess local sentiments towards acceptable noise exposure.

In developing these acceptability recommendations, efforts were made to maintain consistency with the goals defined in the Federal EPA "Levels Document" and the State Sound Transmission Control Standards for multi-family housing. In both of these documents, an interior noise exposure of 45 dB CNEL (or Ldn) is recommended to permit normal residential activity. If one considers the typical range of noise reduction provided by residential dwellings (12 to 18 dB with windows partially open), the 60 dB outdoor value identified as "clearly acceptable" for residential land use would provide the recommended interior environment.

Figure 3 has been included in order to better explain the qualitative nature of community noise environments expressed in terms of Ldn. It is apparent that noise environments cover a broad range and that, in general, if may be observed that the quality of the environment improves as one moves further away from major transportation noise sources.

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DRAFT
Environmental Noise Advisory Council
And
Interagency Noise Advisory Committee
Meeting Minutes
October 16, 2001, 9:00 a.m.
Chesapeake Conference Room, MDE

Members:

Council:

Senator John Astle	ex officio	absent
Delegate Jake Mohorovic	ex officio	absent
Vacant	MedChi	absent
Dr. George Luz	Acoustical Society	present
Dr. Fred Schmitz	U of MD	present
Michael Powell	Public (business)	present
Nancy Benner	Public	absent

Committee:

Robin Grove, Chair	MDE	present
Jesse Heier	Governor's Office	absent
Bill Grabau	MOSH	present
Ken Polcak	MDOT	present
Fred Sherbert	DNR	present
David Roberts	DHMH	present

Guests:

See attached attendance sign-in sheet.

MDE Staff:

George Harman
 Bill Parrish
 Dave Jarinko

The eighth official meeting of the Environmental Noise Advisory Council and Interagency Noise Committee was convened at 9:00 AM on October 16, 2001 at the Department of the Environment.

Agenda:

See the attached agenda for this meeting.

Introductions

Mr. Robin Grove opened the meeting with introductions of the Council and Committee members, guests, and MDE staff. He outlined the role of the Council as outlined in the noise statute, and the need to follow a more formal process as the Department seeks the Council's recommendations on its regulatory proposals. He explained that Drs. Luz and Schmitz expressed willingness to serve as Chair and Vice Chair, respectively, and that the Secretary will make the formal appointments in the near future.

Dr. Luz distributed materials showing a comparison of L_{max} fast and L_{max} slow measurements, and a study involving the evaluation of a USEPA report relating day-night average sound levels and population density. Mr. Powell noted that the Governor's Smart Growth policies promote development around existing populated areas, and may result in increased population density and noise levels.

Minutes of the September Meeting

Copies of the draft minutes for the September 10, 2001 meeting were distributed.

Appointments – Chair and Vice Chair

There was discussion about progress made in identifying a candidate for the vacant MedChi Society member of the Council. A list of retired physicians with interests in hearing disorders was requested from the Society. Those on the list will be sent a letter requesting expressions of interest. The Secretary will appoint a member from those on the list who show an interest in being a member of the Council.

New Business

A list of issues and topics dated August 28, 2001 was prepared by the Department and distributed previously to the Council and the Committee to assist in them in scheduling topics for future meetings.

Mr. Powell expressed interest in having the Department and the Council consider local noise ordinances as one of the first issues addressed. There was discussion about the two aspects of local ordinances being planning and enforcement. Mr. Jarinko explained the current relationship between the Department and local enforcement agencies. He explained that most local enforcement occurs when a noise problem is combined with another unlawful activity. Local agencies do not typically pursue noise enforcement by itself because they lack the necessary equipment and technical expertise. Mr. Zeleski noted that local enforcement requires resources. There was general discussion about ways to encourage local governments to include noise control in planning and permitting of new development. The outcome of the discussions was agreement that the Department would prepare a proposal concerning local agency implementation of noise control and provide it for the Council to review at the next meeting.

The next topic discussed was the membership of the Council. Mr. Powell recommended that the Department consider adding local government representatives to the membership of the Council. He suggested consideration of one or two additional members selected from MACO and MML. The outcome of the discussions was that the Department would prepare a proposal for expanding the membership of the Council to include local government members.

The Council discussed the need to address agricultural equipment noise regulation. Based on public input at previous meetings, Mr. Powell noted that at previous meetings, no one from the public sector testified or complained about noise from agricultural machinery. Mr. Harman explained that the Department's strawman proposal was offered in order to clarify and establish in regulation its long-term policy of enforcement of noise standards for stationary equipment. It was decided to defer consideration of this issue to a future meeting.

The next topic discussed was the regulation of gun clubs. It was decided that the Department would prepare draft amendments to the regulations that incorporate the change in the statute that was made in the 2001 Legislative Session.

Mr. Powell suggested that a discussion take place at the next meeting about the possibility of the Council making a recommendation that funds be provided to the Department to support studies where needed to gather data for development of new regulations. Mr. Grove explained that the Governor's budget request for FY2003 has already been prepared, but that a request from the Council could be included in the FY2004 budget request.

Speaking during the public input session, Mr. Sandy Weymouth stated his belief that all outdoor recreational activities should be regulated under the noise statute and regulations.

It was decided that the next meeting of the Council and Committee would be on December 3, 2001 at 9AM.

Old Business

Next Meeting

Mr. Grove thanked everyone for coming to the meeting.

Interagency Noise Control Committee

10/16/01

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● New Chair - Dr. Geo. Lus (ASA)

Vice Chair - Dr. Fred Schmitt (U of MD)

○ ASA - model community noise ordinance
↳ committee (has been inactive)

① Bennett Brooks (contact)

* local ordinances — get DOT perspective in ^{on this} enforcement (ASAP)

Compx-26.02.03 → "current model" → ① enforcement (ASAP)

➔ Mont. Co.

- include noise compliance

② zoning

● * Council / committee - combine, expand, duties

③ * proposed leg. change & include
include - DHMH ← 1 or more reps from Co. / locals.
* Chab. of Commerce

* Agricultural equipment
fixed → vs field equipment (exempt)

MDG expand → clarify policy (have already been enforcing for 25+ yrs)

have MDG development proposal → agricult. comments
(bring to forward next time)

② * Gun Clubs → separate from "sporting events"
① '83 - law → state should have modified (house keep)
reps → did not
(put statutory lang. in reg.) * ② -

speaker → Public

-2-

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El Cecil Co. Dragway →
limit Committee

oppose rec. activity
exemption

— remove exemptions for adults race
facilities

MEETING AGENDA
ENVIRONMENTAL NOISE ADVISORY COUNCIL
AND THE INTERAGENCY NOISE CONTROL COMMITTEE

October 16, 2001
9:00 AM to 12:00 PM
Patuxent Conference Room
MDE (Waste Management area – escorts to be provided)

9:00 Welcome and Introductions

9:05 Minutes of the September meeting

9:10 Appointments – Chair, Vice Chair *Dr. Geo. Luz, Dr. Fred Schmitz*
Status of Medical Chirurgical Faculty member

9:15 Prioritization of Topics for Discussion and Development of Recommendations
(below list is the same as the August 28th memo provided with the Sept Agenda)

- Periodic and Impulse Noise Definition
- Measurement technique – Table 2
- Fast L_{max} vs. other methods
- ✓ • Agricultural equipment – field machinery vs. stationary equipment
- Goals – Standards and Table 1 – continuous Noise L_{dn}
- Household tools – nighttime limitation
- HVAC – lower standards (remove from law and regulations)
- Household pets – exempt
- ✓ • Separate gun clubs from sporting events (required by statute)
- Public property exemption – retain exemption or consider for emergency situations only
- Variance costs – should they be borne by the applicant
- ✓ • Council and committee – combine, expand, duties
- ✓ • Local government ordinances – model zoning and, building codes; how to enforce compliance
- Others – *# of studies, etc.*

9:45 Begin discussion of prioritized issues

10:30 Break

11:30 Public Input Session – 5- minutes presentations, if any

12:00 Adjourn

Future Meetings Nov 5, 2001 - *x no meeting*
 Dec 3, 2001 - *Council / Committee*
 Jan 7, 2002

ENVIRONMENTAL NOISE ADVISORY COUNCIL
INTERAGENCY NOISE CONTROL COMMITTEE

OCTOBER 16, 2001 9:00 AM

<u>NAME</u>	<u>REPRESENTING</u>	<u>PHONE / EMAIL</u>
George Harman	MDE	410-631-3856
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Barbara Pantaus	Cecil Co. Drugway Project	410-587-9142
CALVIN J FORSYTHE	HAGERSTOWN SPEEDWAY	717-328-5344
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From: "Carolyn Kuciara" <ckuciara@mde.state.md.us>
To: <cshaw2@allegHENyenergy.com>, <thomas.e.benassi@bg...>
Date: Tue, Oct 9, 2001 3:06 PM
Subject: Noise Agenda for October 16, 2001.

Please find attached the Noise Agenda for October 16, 2001.

If you have any questions or if I can be of any assistance, please do not hesitate to contact me either by email or telephone.

Carolyn Kuciara
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Can Population Density be used to Determine Ambient Noise Levels?

Catherine M. Stewart

Oak Ridge Inst. of Science and Education (ORISE), Postgraduate Internship Program, U.S. Army Center for Health Promotion and Preventive Medicine, Environmental Noise Program, 5158 Blackhawk Rd., Aberdeen Proving Ground, MD 21010-5403 USA

William A. Russell, Jr., and George A. Luz

U.S. Army Center For Health Promotion and Preventive Medicine, Environmental Noise Program, Aberdeen Proving Ground, MD 21010-5403 USA

Summary: In 1974, the U.S. Environmental Protection Agency (USEPA) published a report endorsing the day-night average sound level (DNL) for nationwide use. Included in this report was an equation predicting DNL from the number of people per square mile. To determine whether the 1974 equation still provided a realistic estimate, monitoring was conducted at 49 sites in Baltimore County and Baltimore City, Maryland, USA. To explore seasonal differences and test-retest reliability, the monitoring was conducted 24 h in summer and 24 h in the winter. The results are compared to those of the USEPA.

BACKGROUND

In 1974 the EPA produced a report entitled "Population Distribution of the United States as a Function of Outdoor Noise Level" (1). Its purpose was to develop a model that could predict ambient noise levels in urban areas that were not impacted greatly by highway or aircraft data. The EPA started with studies showing that motor vehicles are the predominant contributors to noise levels in urban areas. It had been shown that over a wide range of population densities, the number of automobiles per person is almost constant, and the usage of vehicles is directly proportional to population density (2). These facts led to the hypothesis that noise levels in communities should be proportional to the population densities. The hypothesis was tested against 30 existing samples of noise data that had population density information available. It was found that the day/night sound level (DNL) could be correlated with 10 times the logarithm of the population density with an intercept of 22 decibels for zero population.

Based on the preliminary analysis, monitoring was conducted at 100 sites throughout the United States. Measurements were taken for a 24-hour period at each site. The results showed a correlation of .72 between the DNL and the log of the population density. The regression line, using the 100 site data, as well as the data from the previous 30 sites, had an equation of:

$$L_{dn} = 10 \log_{10} p + 22(\text{dB}) \text{ (standard deviation of the data was 4 dB)}$$

It has been 25 years since the EPA study was conducted. To determine if this equation can still provide a realistic estimate of ambient noise levels, 49 sites were monitored throughout Baltimore County and Baltimore City, Maryland USA. Each site was monitored for two 24-hour

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periods, one in the summer and one in the winter to explore seasonal differences and test-retest reliability. The results were compared to those of the EPA.

SITE SELECTION

Monitoring was conducted at 36 sites in Baltimore County and 13 sites in Baltimore City. The sites were chosen in order to encompass as wide a range of population densities as possible. The sites included areas with population densities ranging from approximately 2,900 to 40,000. Some of the factors in site selection included homogeneity of land use, and distance from major highways.

The distribution of population throughout the census blocks were often variable. For preliminary site selection, land use data was displayed with census block boundaries. Census blocks that included many different land use types were discounted as monitoring sites. As in the USEPA study, no site was selected within 300 meters of a major highway.

The sites were at single-family homes and townhouses. The monitors were placed at the residence with the microphone height being between 1 and 4 meters. The variation in height was due to the necessity of placing the equipment for security reasons.

DATA COLLECTION

Data was collected for a 24-hour period using the Larson-Davis Laboratories Precision Integrating Sound Level Analyzer (Model 870), preamplifier (Model 900B) and microphone (Model 2541). The analyzers were calibrated before each use with a Metrosonics Acoustical Calibrator (Model cL304).

DATA ANALYSIS

Three statistical hypothesis that were tested:

1. There is no correlation between population density and measured ambient noise levels.
2. There is no difference between summer and winter ambient noise levels.
3. There is no difference between the ambient noise levels predicted by the EPA model and the actual monitored noise levels.

To test the first hypothesis, a scatter diagram was created using population density as the independent variable and measured noise level as the dependent variable. A regression line was created through the data points which showed a correlation of $r = .76$ between the measured noise levels and the population density. The standard deviation was 5 dB. These results showed an agreement with the EPA study which had a correlation of $r = .72$ and we concluded that there is a correlation between population density and ambient noise levels.

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A two-tailed T-test for dependent variables was used to test the second hypothesis. Because of equipment failure, only 44 paired data sets were used for this analysis. The t-statistic was 3.51 and the two-tailed t-critical value was ± 2.02 . These results led us to reject the null hypothesis that there is no difference between the summer and winter results.

The final hypothesis compared The EPA model and the monitoring results. The data used for this analysis was the average of the summer and winter monitoring results. A regression line was run through the scatter diagram of the monitoring data that had the equation:

$$L_{dn} = 11.00 \log_{10} p + 14.45 \text{ (dB)} \text{ (standard deviation of the data was 5 dB)}$$

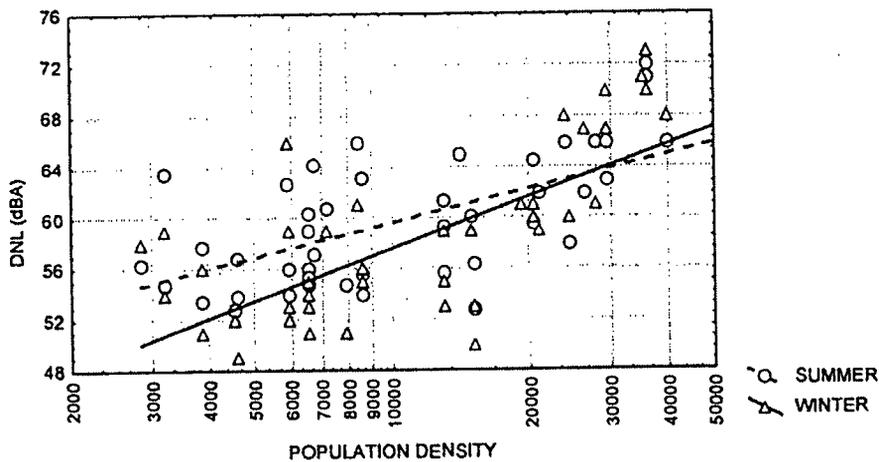
The hypothesis was tested using a two-tailed z-test on the slopes and the y-intercepts of the two regression lines. At a significance level of .05, the critical z-factor was ± 1.96 . The z-value for the slopes of the lines was .19 and the z-value for the y-intercepts was -1.46. Both of these values fall within the limits for accepting the null hypothesis.

CONCLUSIONS

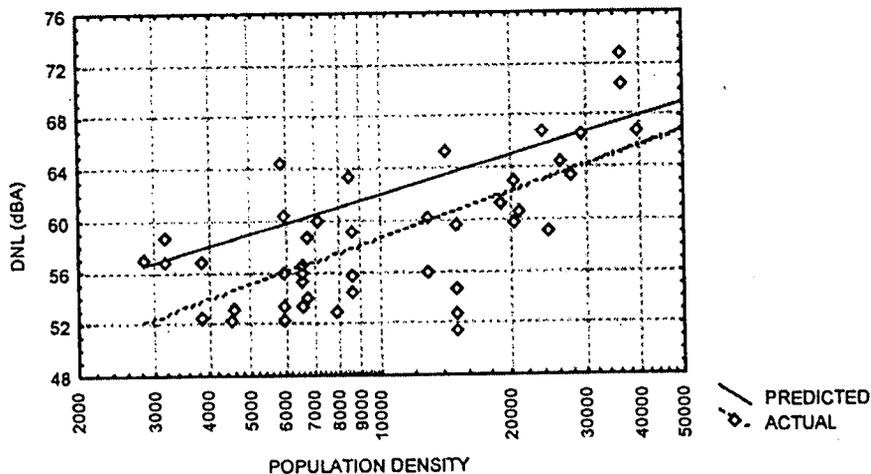
The results of the Baltimore area study have confirmed that there is a correlation between population density and ambient noise levels. We found a difference between noise levels measured during the summer and winter. Our results showed that summertime was generally quieter for areas of high population density, whereas the winter was quieter in the areas of lower population densities.

Though our statistical analysis showed that the EPA model was still a valid means of predicting ambient noise levels for urban areas, further research could be done to see if the model could be improved. Our monitoring results suggest that altering the EPA model to have a y-intercept of 19 dB rather than 22 dB would yield closer agreement with actual noise levels. To determine which equation would provide a better fit, the 100 sites used for the EPA study could be revisited.

SUMMER VS WINTER LEVELS
 SUMMER = $23.57+9.01*\log_{10}(x)+\text{eps}$
 WINTER = $2.73+13.70*\log_{10}(x)+\text{eps}$



PREDICTED AND ACTUAL NOISE LEVELS
 PREDICTED = $22+10*\log_{10}(x)+\text{eps}$
 ACTUAL = $14.45+11.00*\log_{10}(x)+\text{eps}$



REFERENCES

1. U.S. Environmental Protection Agency (USEPA), *Population Distribution of the United States as a Function of Outdoor Noise Level*, EPA 550/9-74-009, Washington, D.C., USEPA, 1974.
2. Wilbur Smith and Associates, *Motor Trucks in the Metropolis*, Washington, D.C. 1969.

9 OCT 01

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9:19:01	60.4	57.1	3.3		9:19:00	54	54	0
9:20:01	58.7	55	3.7		9:20:00	53.3	53.3	0
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870 A SLOW vs. A FAST

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870 A SLOW vs. A FAST

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11:02:01	59.1	54.1	5		11:02:00	53	52.8	0.2
11:03:01	66.8	63.4	3.4		11:03:00	57.1	57	0.1
11:04:01	85.5	81.4	4.1		11:04:00	75.2	74.7	0.5
11:05:01	67.6	66	1.6		11:05:00	57.3	57.6	-0.3
11:06:01	54.7	54	0.7		11:06:00	53	53	0
11:07:01	56.1	54.6	1.5		11:07:00	53.3	53.3	0
11:08:01	61.3	58.5	2.8		11:08:00	53.8	53.5	0.3
11:09:01	66.1	64.4	1.7		11:09:00	57.6	57.7	-0.1
11:10:01	85.5	81.7	3.8		11:10:00	74.4	73.4	1
11:11:01	82.3	81.4	0.9		11:11:00	66.1	67.7	-1.6
11:12:01	55.7	54.3	1.4		11:12:00	53.3	53.3	0
11:13:01	56.6	54.6	2		11:13:00	53.2	53.2	0
11:14:01	59.5	57	2.5		11:14:00	54	54	0
11:15:01	65.2	61.1	4.1		11:15:00	55.3	55	0.3
11:16:01	55.2	53.9	1.3		11:16:00	53.1	53.2	-0.1
11:17:01	60.8	58.1	2.7		11:17:00	54.4	54.2	0.2
11:18:01	67	66.1	0.9		11:18:00	58	57.7	0.3
11:19:01	70.7	67.6	3.1		11:19:00	57.7	56.9	0.8
11:20:01	78.9	77.6	1.3		11:20:00	67.4	67.2	0.2
11:21:01	62	56.7	5.3		11:21:00	54.1	53.8	0.3
11:22:01	58.6	55.6	3		11:22:00	54.1	53.7	0.4
11:23:01	60.1	56.2	3.9		11:23:00	54.3	53.8	0.5
11:24:01	63.3	60.3	3		11:24:00	56.6	56.3	0.3
11:25:01	59.6	57.5	2.1		11:25:00	55.2	54.8	0.4
11:26:01	60.8	57.8	3		11:26:00	55	54.6	0.4
11:27:01	57.2	56.1	1.1		11:27:00	54.3	53.8	0.5
11:28:01	59.5	58.5	1		11:28:00	54.8	54.2	0.6
11:29:01	61	59.8	1.2		11:29:00	56.2	56	0.2
11:30:01	60.8	56.6	4.2		11:30:00	54.4	54	0.4
11:31:01	62.9	57.6	5.3		11:31:00	54.9	54.4	0.5
11:32:01	59	57.4	1.6		11:32:00	55.4	55.1	0.3
11:33:01	62.4	60.1	2.3		11:33:00	55.6	55.3	0.3
11:34:01	60.1	57.1	3		11:34:00	54.6	54.2	0.4
11:35:01	68.1	63.5	4.6		11:35:00	58.1	57.5	0.6
11:36:01	63.4	61.6	1.8		11:36:00	55	54.7	0.3
11:37:01	61.2	59.1	2.1		11:37:00	55	54.4	0.6
11:38:01	83.2	80.2	3		11:38:00	68.4	67.4	1
11:39:01	80.9	79.5	1.4		11:39:00	67.4	68.3	-0.9
11:40:01	64.4	61	3.4		11:40:00	55.5	55.1	0.4
11:41:01	64.8	62.6	2.2		11:41:00	56.1	55.4	0.7
11:42:01	66.4	64	2.4		11:42:00	56.2	56.1	0.1
11:43:01	58.8	54.6	4.2		11:43:00	53.6	53.1	0.5
11:44:01	62.3	59.8	2.5		11:44:00	55.5	55.2	0.3
11:45:01	64	58.8	5.2		11:45:00	55	54.6	0.4
11:46:01	60.3	56.5	3.8		11:46:00	54.3	53.8	0.5
11:47:01	61.3	57.6	3.7		11:47:00	54.6	54.2	0.4
11:48:01	68.5	62	6.5		11:48:00	55.1	54.6	0.5
11:49:01	55.2	54	1.2		11:49:00	54.1	53.5	0.6

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870 A SLOW vs. A FAST

FAST.bin -		slow--		FAST.bin		SLOW.bin	
Time	Lmax	Lmax	difference	Time	Leq	Leq	difference
11:50:01	58.2	56.8	1.4	11:50:00	54.2	53.7	0.5
11:51:01	54.7	53.2	1.5	11:51:00	53.2	52.7	0.5
11:52:01	71.9	66.5	5.4	11:52:00	55.8	54.4	1.4
11:53:01	63.2	64.5	-1.3	11:53:00	55.9	56	-0.1
11:54:01	56.3	54.6	1.7	11:54:00	54	53.6	0.4
11:55:01	63.4	59.6	3.8	11:55:00	54.8	54.2	0.6
11:56:01	58.1	55	3.1	11:56:00	54.1	53.5	0.6
11:57:01	63.4	59.4	4	11:57:00	55.3	54.8	0.5
11:58:01	58.3	55.5	2.8	11:58:00	54.5	54	0.5
11:59:01	56.7	55.4	1.3	11:59:00	54.5	53.9	0.6
12:00:01	65.9	63.4	2.5	12:00:00	58.5	58.1	0.4
12:01:01	73	70.3	2.7	12:01:00	62.2	61.9	0.3
12:02:01	59	57	2	12:02:00	55.6	55.1	0.5
12:03:01	63.4	59.6	3.8	12:03:00	55.9	55.4	0.5
12:04:01	58.9	56.8	2.1	12:04:00	54.8	54.2	0.6
12:05:01	57.5	55.4	2.1	12:05:00	55	54.4	0.6
12:06:01	56.8	54.9	1.9	12:06:00	54.6	54	0.6
12:07:01	57.3	56.4	0.9	12:07:00	55	54.4	0.6
12:08:01	61.3	56.5	4.8	12:08:00	54.9	54.3	0.6
12:09:01	56.2	54.6	1.6	12:09:00	54.6	54	0.6
12:10:01	57.1	55.8	1.3	12:10:00	55.1	54.5	0.6
12:11:01	61.1	56.1	5	12:11:00	54.8	54.1	0.7
12:12:01	58.3	55.5	2.8	12:12:00	55.2	54.5	0.7
12:13:01	58.8	55.8	3	12:13:00	54.7	54.1	0.6
12:14:01	59.4	55.4	4	12:14:00	54.8	54.1	0.7
12:15:01	65.7	59.7	6	12:15:00	55.1	54.4	0.7
12:16:01	62.1	59.4	2.7	12:16:00	55.1	54.6	0.5
12:17:01	62.8	60	2.8	12:17:00	55.2	54.8	0.4
12:18:01	70.5	63.4	7.1	12:18:00	55	54.4	0.6
12:19:01	68	61.7	6.3	12:19:00	55.6	55.2	0.4
12:20:01	62.3	59	3.3	12:20:00	55.6	55.2	0.4
12:21:01	61.3	57.1	4.2	12:21:00	54.8	54.3	0.5
12:22:01	59.3	55.9	3.4	12:22:00	54.5	53.9	0.6
12:23:01	57.9	54.9	3	12:23:00	54.3	53.7	0.6
12:24:01	55.6	54.3	1.3	12:24:00	54.2	53.6	0.6
12:25:01	62.7	60.3	2.4	12:25:00	55.3	54.8	0.5
12:26:01	58.2	56.6	1.6	12:26:00	55.2	54.7	0.5
12:27:01	63	58.4	4.6	12:27:00	55.5	55.1	0.4
12:28:01	60	55.9	4.1	12:28:00	54.6	54.1	0.5
12:29:01	57.9	55.4	2.5	12:29:00	54	53.5	0.5
12:30:01	60.1	58.3	1.8	12:30:00	55.7	55.2	0.5
12:31:01	57.7	56.7	1	12:31:00	54.8	54.4	0.4
12:32:01	57.9	55.9	2	12:32:00	55	54.4	0.6
12:33:01	56	54.8	1.2	12:33:00	54.5	54	0.5
12:34:01	56.5	54.8	1.7	12:34:00	54.3	53.7	0.6
12:35:01	56.1	55.1	1	12:35:00	54.5	53.9	0.6
12:36:01	59	56.5	2.5	12:36:00	55.3	54.7	0.6
12:37:01	59	57.9	1.1	12:37:00	55.2	54.6	0.6
12:38:01	58.9	57.5	1.4	12:38:00	55.2	54.8	0.4
12:39:01	60.2	55.4	4.8	12:39:00	54.6	54.1	0.5
12:40:01	58.3	57.4	0.9	12:40:00	55.3	54.8	0.5

870 A SLOW vs. A FAST

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FAST.bin slow FAST.bin SLOW.bin

Time	Lmax	Lmax	difference	Time	Leq	Leq	difference
12:41:01	62.9	61.7	1.2	12:41:00	56.2	55.6	0.6
12:42:01	61.1	57.8	3.3	12:42:00	55.2	54.7	0.5
12:43:01	64.7	59.9	4.8	12:43:00	55.6	55.1	0.5
12:44:01	66.9	62.7	4.2	12:44:00	55.2	54.8	0.4
12:45:01	61.9	58.6	3.3	12:45:00	54.9	54.3	0.6
12:46:01	63.9	57.7	6.2	12:46:00	54.4	53.8	0.6
12:47:01	72.8	69.6	3.2	12:47:00	58.6	58.2	0.4
12:48:01	56.1	54.7	1.4	12:48:00	54.3	53.7	0.6
12:49:01	70.7	65.2	5.5	12:49:00	58.8	58	0.8
12:50:01	71.8	69.7	2.1	12:50:00	59.4	59.3	0.1
12:51:01	67.6	66.7	0.9	12:51:00	60.5	60	0.5
12:52:01	65.4	62.8	2.6	12:52:00	56.5	56.3	0.2
12:53:01	56.3	55	1.3	12:53:00	54.5	54	0.5
12:54:01	58.6	56.9	1.7	12:54:00	55.2	54.6	0.6
12:55:01	72.5	71.7	0.8	12:55:00	62.1	62	0.1
12:56:01	70.2	69.1	1.1	12:56:00	62.7	62.3	0.4
12:57:01	76.5	74.6	1.9	12:57:00	69	68.8	0.2
12:58:01	64	59.3	4.7	12:58:00	55.6	55.4	0.2
12:59:01	67.8	64.2	3.6	12:59:00	59.3	58.8	0.5
13:00:01	61.6	59.5	2.1	13:00:00	55.2	54.7	0.5
13:01:01	63.2	62.1	1.1	13:01:00	57	56.5	0.5
13:02:01	71	70	1	13:02:00	61.8	61.9	-0.1
13:03:01	61.1	58.2	2.9	13:03:00	55.6	55.2	0.4
13:04:01	64.3	58.5	5.8	13:04:00	55.4	54.8	0.6
13:05:01	76	72	4	13:05:00	62.5	62.4	0.1
13:06:01	60	58	2	13:06:00	55.3	54.7	0.6
13:07:01	56.8	55.4	1.4	13:07:00	54.9	54.4	0.5
13:08:01	62.8	60.8	2	13:08:00	57.2	56.4	0.8
13:09:01	65.8	63.4	2.4	13:09:00	57.8	57.3	0.5
13:10:01	58.5	57	1.5	13:10:00	54.6	54.1	0.5
13:11:01	73.4	69.5	3.9	13:11:00	57.9	57.9	0
13:12:01	61.8	59.4	2.4	13:12:00	55.4	55	0.4
13:13:01	64.9	60.2	4.7	13:13:00	55	54.5	0.5
13:14:01	59	56.5	2.5	13:14:00	55.3	54.9	0.4
13:15:01	62.5	59.7	2.8	13:15:00	56.1	55.7	0.4
13:16:01	73.4	64.5	8.9	13:16:00	55.6	55.2	0.4
13:17:01	55.7	54.5	1.2	13:17:00	54.1	53.7	0.4
13:18:01	57.6	55.5	2.1	13:18:00	54.8	54.4	0.4
13:19:01	58.3	54.9	3.4	13:19:00	54.4	53.8	0.6
13:20:01	56.8	55	1.8	13:20:00	54.5	53.8	0.7
13:21:01	63.9	59.3	4.6	13:21:00	55.4	54.9	0.5
13:22:01	63.7	58.3	5.4	13:22:00	55.2	54.5	0.7
13:23:01	64	59.3	4.7	13:23:00	55.4	55	0.4
13:24:01	64.4	59.1	5.3	13:24:00	54.7	54.1	0.6
13:25:01	58.1	56.3	1.8	13:25:00	54.8	54.3	0.5
13:26:01	58.3	55.6	2.7	13:26:00	54.7	54.2	0.5
13:27:01	56.5	55.2	1.3	13:27:00	52.7	52.3	0.4
13:28:01	69.3	61.2	8.1	13:28:00	51	50.6	0.4
13:29:01	65.7	63.8	1.9	13:29:00	56.1	55.7	0.4
13:30:01	59.7	53.6	6.1	13:30:00	51.4	51	0.4
13:31:01	53.6	52.2	1.4	13:31:00	49.9	49.6	0.3

870 A SLOW vs. A FAST

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FAST.bin - slow				FAST.bin SLOW.bin			
Time	Lmax	Lmax	difference	Time	Leq	Leq	difference
13:32:01	52.1	51.2	0.9	13:32:00	49.5	49.2	0.3
13:33:01	52.5	50.9	1.6	13:33:00	50.2	49.9	0.3
13:34:01	54	51.8	2.2	13:34:00	50.7	50.3	0.4
13:35:01	61.6	56.8	4.8	13:35:00	52.8	52.2	0.6
13:36:01	67.2	65.3	1.9	13:36:00	56.9	56.6	0.3
13:37:01	63.5	61.5	2	13:37:00	53.6	53.6	0
13:38:01	57.9	52.9	5	13:38:00	51.7	51.3	0.4
13:39:01	57.4	53.8	3.6	13:39:00	51.8	51.5	0.3
13:40:01	54.5	52.2	2.3	13:40:00	50.5	50.2	0.3
13:41:01	64.5	56.7	7.8	13:41:00	51	50.6	0.4
13:42:01	63.9	60.7	3.2	13:42:00	55	54.6	0.4
13:43:01	58.4	56	2.4	13:43:00	53.7	53.3	0.4
13:44:01	63	55	8	13:44:00	50.3	49.9	0.4
13:45:01	59.3	54.7	4.6	13:45:00	52.5	51.9	0.6
13:46:01	58.5	56	2.5	13:46:00	52.4	52	0.4
13:47:01	55.6	53.7	1.9	13:47:00	51.4	50.8	0.6
13:48:01	54.5	53.2	1.3	13:48:00	51.2	50.9	0.3
13:49:01	65.9	61.6	4.3	13:49:00	50.6	49.5	1.1
13:50:01	71.5	67.6	3.9	13:50:00	56.1	56.3	-0.2
13:51:01	55.3	53.6	1.7	13:51:00	50.3	49.9	0.4
13:52:01	53.2	50.8	2.4	13:52:00	49	48.6	0.4
13:53:01	59.9	57.3	2.6	13:53:00	50.6	50.2	0.4
13:54:01	62.8	57.9	4.9	13:54:00	52.2	51.8	0.4
13:55:01	54.7	52.2	2.5	13:55:00	49.5	49.1	0.4
13:56:01	65.4	58.7	6.7	13:56:00	54	53.4	0.6
13:57:01	69.2	66.8	2.4	13:57:00	59	58.5	0.5
13:58:01	57.6	55.1	2.5	13:58:00	51.8	51.5	0.3
13:59:01	53.2	50.6	2.6	13:59:00	49.8	49.4	0.4
14:00:01	57.4	55.5	1.9	14:00:00	50	49.5	0.5
14:01:01	57.3	54.9	2.4	14:01:00	52	51.7	0.3
14:02:01	64.1	60.9	3.2	14:02:00	52.8	52.6	0.2
14:03:01	60.3	58.4	1.9	14:03:00	54	53.7	0.3
14:04:01	63.7	54.9	8.8	14:04:00	51.1	50.5	0.6
			2.8170139				0.2927083
			AVERAGE				AVERAGE

DRAFT
Environmental Noise Advisory Council
And
Interagency Noise Advisory Committee
Meeting Minutes
September 10, 2001, 9:00 a.m.
Chesapeake Conference Room, MDE

Members:

Council:

Senator John Astle	ex officio	absent	
Delegate Jake Mohorovic	ex officio	present	
Vacant	MedChi	absent	
Dr. George Luz	Acoustical Society	present	- New Chair
Dr. Fred Schmitz	U of MD	present	- New vice-chair
Michael Powell	Public (business)	present	
Nancy Benner	Public	present	

Committee:

Robin Grove, Chair	MDE	present
Jesse Heier	Governor's Office	absent
Bill Grabau	MOSH	present
Ken Polcak	MDOT	present
Fred Sherbert	DNR	absent
David Roberts	DHMH	present

Guests:

See attached attendance sign-in sheet.

MDE Staff:

- George Harman
- Bill Parrish
- Dave Jarinko
- Bob Field

The seventh official meeting of the Environmental Noise Advisory Council and Interagency Noise Committee was convened at 9:00 AM on September 10, 2001 at the Department of the Environment.

Agenda:

See the attached agenda for this meeting.

Introductions

Mr. Robin Grove opened the meeting with introductions of the Council and Committee members, guests, and MDE staff. He explained that no one representing gun clubs responded to the Department's invitation to make a presentation. The time on the agenda allotted for this group was reserved for presentations by guests.

Meeting Minutes

There were no comments concerning the revised minutes of the July 9 meeting. Copies of handouts from the last meeting were distributed. Dr. Luz distributed copies of California's general planning code. The code has eight planning elements including on for noise control. In the code, counties are encouraged to develop local noise control ordinances. He noted that Obispo County has a very good ordinance. He also noted that he would be presenting a paper about the health effects of noise in October at a conference. He distributed copies of this paper.

New Business

- Michael Staiano, Staiano Engineering, Inc.

Mr. Staiano made a presentation entitled "Experience with Environmental Noise Regulation". A copy of the overheads used in his presentation are attached.

- Mr. Staiano stated his strong opinion that noise evaluations should be made at the receptor location rather than the property line. For instance, measurements for compliance should be made at the location of concern, such as a house or deck, instead of the property line because the distance between the two may be significant.
- He described how measurement for compliance using the L_{max} fast metric does not apply in the real world because of the difficulty in dealing with extraneous noises that occur during measurement periods.
- Already regulating at 55Ldn at many sites
- Mr. Staiano also commented on the issue of low ambient noise level degradation. He referenced criteria used by the Federal Transit Administration for evaluating impacts of proposed project noise exposure over existing noise exposure. These criteria and others consider 65 dBA as the upper level of accepted noise levels for residential land use. He also discussed how the "Schultz" curve describes community annoyance response to higher noise levels, based on a survey of transportation noise. He described how this curve shows that the degree of annoyance with noise, measured using the proportion of subjects expressing high degrees of annoyance at different noise levels, increases with increasing ambient noise levels. He agreed with Dr. Luz's experience from reviewing other studies that community response is site specific and can be affected by the community's attitudes.
- He discussed difficulties in using ambient noise-based limits. These include the need for consideration of future ambient noise levels would be with permitted uses, and ambient noise level quantification considering prevailing weather conditions, seasonal sources, low-level noise measurement uncertainty, and source identification.

- o Mr. Staiano expressed concern about equipment noise standards in the strawman proposal. He said that the proposal is unclear in dealing with multiple pieces of the same equipment, and equipment, such as a front end loader that has compressors, fans, motors, etc., and to which does the standard apply.
- o He also discussed the regulation of low frequency sound. To his knowledge, Virginia is the only state where noise regulations apply to low frequency sound. He noted that Virginia's regulation addresses frequencies above 31.5 Hertz, whereas, Maryland's proposed standard covers frequencies below that level. He stressed that the regulations should be science-based and implementable. Measurements should be made outside in order to alleviate interference caused by structures. He questioned the need to regulate low frequencies when there seemed to be only one instance where it might be needed.

There were many questions and comments from the Council and the Committee during the discussion by Mr. Staiano. Mr. Powell asked if 24-hour measurements required the attendance of a technician. Mr. Staiano agreed in the case that L_{max} was being measured. Mr. Powell asked if it was feasible to regulate low frequency noise. Mr. Staiano said that the regulation of low frequency noise regulation was difficult because it is hard to measure low frequencies. Delegate Mohorovic questioned him about the adequacy of sound measuring equipment used by MDE. He stated that in his experience MDE's equipment and skills in measuring noise were satisfactory. Mr. Powell asked Mr. Staiano for his opinion about the reasonableness of the cost of compliance with the proposed standards for a proposed power plant. He declined to be specific without more information. Mr. Powell asked for his opinion about zoning and noise regulation. Mr. Staiano stated that every noise problem that he has dealt with involved incompatible land use. Mr. Roberts asked for his view on having different standards for different types of equipment, sources or facilities and differing annoyance levels. Mr. Staiano said that he sees no basis for differentiation in these cases. The only exception he noted would be for unique sounds such as gunshots. Mr. Roberts asked for his opinion on time of day limits for activities such as auto racing. Mr. Staiano noted that the current regulations are 10 PM to 7 AM for these activities and that these are accepted in practice.

- Lyn Hoot, Maryland Grain Producers Association

Ms. Hoot noted that agricultural field machinery is exempt under the current regulations, when operated and maintained under manufacturer's specifications. The strawman proposal proposes regulation of stationary equipment and continues the exemption for mobile equipment. She explained that the industry supports the regulation of stationary machinery in the same manner as field machinery. The few complaints that arise from stationary equipment are resolved voluntarily. Putting additional regulatory pressure on farmers is counter to agricultural preservation and Smart Growth goals. George Harman suggested a grandfathering clause for new equipment. Dave Jarinko noted that sound insulation is effective in reducing noise from grain dryers. He also noted the need for mufflers on engine-driven irrigation pumps. Ms. Hoot recommended education and voluntary efforts to resolve these problems.

- Mr. and Mrs. David Spinazzola

- Mr. and Mrs. Spinazzola described their problem with an uncooperative neighbor who allows use of his property for ATV riding. The neighbor's children ride the ATVs close to the property line causing great annoyance to the Spinazzola's. They asked the neighbor to direct the children to ride on other areas of the neighbor's property. Cecil County does not have a noise ordinance and the Commissioners have not provided any assistance. Baltimore County has an ordinance that restricts ATV riding to 300 feet or farther from the property line. Dave Jarinko has visited many times, met with the neighbor, made noise measurements and attempted to resolve the problem. It was noted that it is difficult to catch the riders in an attempt to issue an NOV for violation of the State noise standard. It was decided that additional attempts would be made by Mr. Jarinko during the next week to catch the riders in violation so that enforcement action could be taken.

- Tom Saquella – Maryland Retailers Association

Mr. Saquella described the difficulties that food stores have complying with the current regulations with refrigerating and HVAC equipment, especially in urban areas. The proposed regulation changes would make things more difficult. The industry is not convinced that changes are needed. He urged the Council to proceed slowly and carefully in considering the proposed changes because of the major impacts on the business climate. Delegate Mohorovic asked if MDE has taken enforcement against retailers. Mr. Saquella stated that he was not aware of enforcement action being taken. Mr. Jarinko noted that Giant Foods are very cooperative in resolving problems. He noted that most HVAC plants are not installed with sound attenuating equipment that is available. He also noted that most counties do not review building permit applications with noise control as a requirement.

- Les Blumberg – Noise Pollution Clearinghouse

Mr. Blumberg is Executive Director of the Clearinghouse that provides information to the public on noise issues. He believes that compassion is needed more than regulation. He explained that surveys show noise as a greater concern in most neighborhoods than crime. He feels that locally enforced noise ordinances are needed with a State program as a backstop. Maryland's program would benefit from a training program for local officials. New Jersey's program is a good model. In his opinion, the proposed 65 dBA exposure level would not be tolerable by most people on their deck. He urged consideration of the levels included in the EPA 's Protective Noise Levels document for setting Maryland's standards. He believes that the standard should apply at the property line rather than the receptor point. For low frequency noise regulation he supports use of the C – scale. He also recommended consideration of distance requirements and others that allow easy determination of violations. He stated that enforcement is more effective when the standard is measured by L_{max} .

Old Business

The process for deliberation by the Council was discussed. Mr. Grove referenced the memo of August 28 with a list of issues that the Council needs to address. He requested the Council to

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prioritize the issues, and discuss recommendations to the Secretary. He also noted that the Secretary would make appointments for Chair and Vice Chair.

Next Meeting

Mr. Grove thanked everyone for coming to the meeting. The next meeting will be on October 16th at 9:00 AM.

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DRAFT

MEMORANDUM

TO: Jane Nishida

FROM: Robin Grove

CC: George Harman, Bill Parrish, Bob Field, Heather Woods

DATE: October 15, 2001

RE: Appointment of Chair and Vice Chair to the Environmental Noise Advisory Council

The purpose of this memo is to request you to approve and sign the attached letters that appoint Dr. Luz as Chair of the Council and Dr. Schmitz as Vice Chair. The State noise pollution control statute ENV 3-203 requires the secretary to appoint a Chair and Vice Chair from among the members of the Council. Up until this point, the Council meetings have focused on gathering information and no formal action has been taken at the meetings held so far. We have requested the Council to begin formulating recommendations to the Secretary on regulatory proposals for noise pollution control that TARSA has drafted. The Council will also consider information that has been provided at its recent meetings from affected industry and public interests. As the Council will be taking formal actions it is now necessary to establish a structure that is consistent with the statute.

At a recent meeting of the Council we explained the need for appointment of the Chair and Vice Chair and requested volunteers or nominations from the Council members for these positions. Both Drs. Luz and Schmitz expressed interest in serving as the Chair and Vice Chair, respectively. Dr. Luz was nominated by the Acoustical Society of America to be its representative on the Council to replace Dr. Busch-Vishniac. He is employed as the Program Manager, Environmental Noise Program, U.S. Army Center for Health Promotion and Preventive Medicine, at Aberdeen Proving Ground. Dr. Schmitz was nominated by the Chancellor of the University System of Maryland as its representative on the Council. He is a professor of aeronautical engineering at the College Park campus. Both Drs. Luz and Schmitz have regularly attended the Council's meetings and have actively participated in the proceedings. In our opinion, both of these individuals are highly qualified technically and professionally to serve in these positions.

Attached are letters for your signature appointing Dr. Luz as Chair and Dr. Schmitz as Vice Chair of the Council. If you approve these appointments, please sign the letters and return them to us for mailing. Carbon copies will be sent to the Acoustical Society and

Interagency
Noise Control Committee

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Dr. Geo. Lux

- re planning

① Calif. - state encourages noise elements in Co. planning
(Handout.)

② Paper - Health effects of Env. noise

M. Staines - Exp. w/ Res.

* eval @ receptor / property line
may be unrepresentative

L_{Amax} = function of duration

$L_{10} = L_{Apm} + 2$

$L_{10} = \dots - 2$

$L_{50} = \dots - 6$

$L_{90} \sim ?$ (background mostly)

$L_{Aeq} = L_{Apm} - 5$

average level of primary machine

$L_{Amax} - 10 \leq L_{eq} \leq L_{Amax} - 5$ estimate

$L_{DN} = f_n$ (site operation duration)

mining
mobile
equipment

FTA Curves
impact

Schultz curves

Ambient-based - future w/ permitted uses

ambient quantification

- weather - uncertainty
- seasonal sources (winds) - source id's

Stations

- Equipment standards define
 - component sources
 - supplementary site limit

Low-Freq. y

- Va. → OBG limits 31.5 Hz. precedent
- science-based
- practical, implementation (LC-weighting)
- need?

MD Grain Producers

~~Part~~

(current exemptions)

major ~~issue~~

grain dryers

- 24hr. operation
- seasonal

"hard but fixable"

1998 - "Right to Farm" Law

Total exemption w/ caveats

planning → zoning creates problem

ATV's - Cecil Co. (no ordinances)

(neighbor - inconsideration)



Balto. Co.

ordinance

no-side win 300 feet of residence

(Citation authority) ?

MD Retailers Assoc.

Food stores / convenience stores

Concern over "ratcheting down standards"

"Quiet Zones" → locally-based

□ Noise Pollution Clearinghouse

- Les Blumberg (501 C3)

200+ calls/emails per wk by

→ (* 200 K/yr. Budget)

* examined 200+ ordinances

- best → local/state relationship state is "backstop"

- levels (65 is too high)

(ref. EPA Levels Document)

- low freq. noise (lack of) Minn. Michigan Fayetteville, Md.

- NJ has → statewide stand'd. → not good

* training → officers imposed model ordinances

Distance-rule.

- "Boom-car" ordinance → L_{max} @ fixed distance

(* Less than L_{max} is way less enforceable)

"Creating or eliminating problems"

state needs to have role → "strong lead" → otherwise locals will be hit + miss.

Future Deliberations (next meeting)

Aug 28 memo → prioritize issues (more info / recommendations)

- ① - take on
- ② - need more info

Structure of council/comm. new chair / vice chair. appointments

9/10/01

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ENVIRONMENTAL NOISE COUNCIL

<u>Name</u>	<u>Representing</u>	<u>Phone / Email</u>
Bill Grassano	Md. 114	
Jim Caffrey	MANNA	410 825 3062 jcaffrey@mannanowindierc.org
Ernie Kent	DBED	erniekent@earthlink.net
Nancy Benner	Public	410-574-1184
Barbara Penton	Public/Cecil Co. Dragway	410 287 9142
Anthony E. Weymouth	Cecil Co Dragway Limitation Proj	410-287-3103
Ken Polcak	md.SHA	410-545-8601 kpolcak@sha.state.md.us
PAUL MOPOROVIC	DeleGate	841 3334
Les Blumberg	Noise Pollution Cleaners	802 229 1659
Lynne C. Aboot	Maryland Grain Producers Assn.	410-956-3777
Michel Powell	Trade Chamber	410-576-4175
Sina Shiro-Sprizzola	Cecil Co. resident	Spinners@dol.net 410-642-6421
David Sprizzola	Cecil Co. resident	Spinners@dol.net 410-642-6421
Tom Benussi	Baltimore Gas & Elect. Co.	410 787 6517 thomas.e.benussi@bge.com
Valerie Connelly	MD Farm Bureau, Inc.	410 922 3426 valerec.mfb@emls.com
Row Nelson	MADIE	410 827-7520 rown@madie.org
Gene Burner	MADIE	410-279-1264 Burner@Friend.ly.net
Joe Miedusiewicz	OLD DOMINION ELECTRIC	410-576-4768 jmiedusiewicz@mail.semms.com
Tom Saquella	Md. Retailers ASSOC	410-269-1440 msretail@aol.com
Shirley Shaw	Allegheny Energy	301 790 6296 cshaw2@alleghenyenergy.com
ALVIN FIRSYTHE	HAGERSTOWN SPEEDWAY	717-328-5344 CWF@DESUPERNET.NET
George Luz	Acoust. Soc. Amer.	410-436-3829 George.luz@amedd.army.mil
George Harman	MDE	410-631-3856 gharman@mda.state.md.us
Robin Grove	MDE	410-631-3680 rgrove@mda.state.md.us

MEETING AGENDA

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ENVIRONMENTAL NOISE ADVISORY COUNCIL
AND THE INTERAGENCY NOISE CONTROL COMMITTEESeptember 10, 2001
9:00 AM to 12:00 PM

Chesapeake Conference Room - MDE (second floor)

9:00 Welcome and Introductions

9:05 Minutes of the July meeting

9:10 Distribution of Letters, Presentations, and Testimony

9:15 Presentations by Gun Club representatives – (Invited)

Pintail Point
J&P Hunting Lodge
Glen Brook

- not present

9:30 Presentation by Mike Staiano – Acoustical Consultant
9:45 Discussion of Process for
Future Council DeliberationsCall for formal Council Chair and Vice-Chair
Discuss plan for consideration of issues raised regarding current noise regulations
and statute; need for additional information (September, October, and November)-
-see attached handout summary

Deliberate on any proposed changes by Nov. 12th

Review and discussion of formal Council recommendations by December
3, 2001

Discussion of Final Council recommendations by January 7, 2002

Finalize and submit recommendations to the Secretary by mid January 2002

10:15 Break

10:25 Resume Discussions

11:30 Public Input Session – 5- minutes presentations, if any

12:00 Adjourn

Next Meeting: Monday, October 1, 2001 – 9:00 to 12:00

Future Meetings Nov 5, 2001

Dec 3, 2001

Jan 7, 2002

From: "Carolyn Kuciara" <ckuciara@mde.state.md.us>
To: <George.Luz@amedd.army.mil>, <mbegley@ccpl.carr.or...
Date: Tue, Aug 28, 2001 3:12 PM
Subject: Noise Council Agenda and Minutes

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Please find attached an agenda for the September 10th meeting of the Noise Council along with minutes of the July 16th meeting. If you have any questions or if I can be of any assistance, please do not hesitate to email me.

Carolyn Kuciara
Administrative Aide
Technical and Regulatory Services Administration
Maryland Department of the Environment
2500 Broening Highway
Baltimore, MD 21224
Phone: 410-631-3183
email: ckuciara@mde.state.md.us

CC: "Bill Parrish" <bparrish@mde.state.md.us>, "Dave J..."

MEMORANDUM

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August 28, 2001

To: Members of the Noise Advisory Council and the Interagency Noise Control Committee

From: Robin Grove, Acting Director
Technical and Regulatory Services Administration
MDE

Subject: Noise Issues

During the past several months, the Noise Advisory Council and Interagency Noise Control Committee have considered, and been presented with information on, a variety of noise-related issues. The following is a summary listing of those issues for consideration by the Council and Committee members in determining which, if any, of these warrant recommendations for changes in policy, regulations or statutes. Members may want to also identify, among this list, topics or issues in which additional information is necessary or desired before considering any such formal recommendations. This listing supercedes the previous "strawman" compilation of issues distributed earlier.

- Periodic and Impulse Noise Definition
- Measurement technique – Table 2
Fast L_{max} vs. other methods
- Agricultural equipment – field machinery vs. stationary equipment
- Goals – Standards and Table 1 – continuous Noise L_{dn}
- Household tools – nighttime limitation
- HVAC – lower standards (remove from law and regulations)
- Household pets – exempt
- Separate gun clubs from sporting events (required by statute)
- Public property exemption – retain exemption or consider for emergency situations only
- Variance costs – should they be borne by the applicant
- Council and committee – combine, expand, duties
- Local government ordinances – model zoning and, building codes; how to enforce compliance
- Others

DRAFT
Environmental Noise Advisory Council
And
Interagency Noise Advisory Committee
Meeting Minutes
July 16, 2001, 9:00 a.m.
Chesapeake Conference Room, MDE

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Members:**Council:**

Senator John Astle	ex officio	absent
Delegate Jake Mohorovic	ex officio	absent
Vacant	MedChi	absent
Dr. George Luz	Acoustical Society	present
Dr. Fred Schmitz	U of MD	present
Michael Powell	Public (business)	present
Nancy Benner	Public	present

Committee:

Robin Grove, Chair	MDE	present
Jesse Heier	Governor's Office	absent
Bill Grabau	MOSH	present
Ken Polcak	MDOT	absent
Fred Sherbert	DNR	present
David Roberts	DHMH	present

Guests:

See attached attendance sign-in sheet.

MDE Staff:

George Harman
 Bill Parrish
 Dave Jarinko
 Bob Field
 Heather Woods

The sixth official meeting of the Environmental Noise Advisory Council and Interagency Noise Committee was convened at 9:00 AM on July 16, 2001 at the Department of the Environment.

Agenda:

See the attached agenda for this meeting.

Introductions

Mr. Robin Grove opened the meeting with introductions of the Council and Committee

members, guests, and MDE staff. He explained that the June 4 "strawman" proposal of recommended changes to the existing Noise Control regulations was intended to generate discussion and that today's meeting would allow the business community to respond to the proposal. 10

Meeting Minutes

There were no comments concerning the revised minutes of the May 7 meeting and they were approved. Mr. Weymouth delivered a revision to the June 4th meeting minutes. The changes will be made and distributed at the next meeting. Mr. Michael Powell distributed to the Council and Committee copies of a July 11, 2001 letter from the Maryland Retailers Association. The letter stated the MRAR's opposition to the proposed reduction in the residential noise standard.

New Business

- Vibrations

In follow-up to the discussion concerning vibration at the May 7 meeting, the Department invited Mr. Richard Peppin, consulting acoustical engineer, to make a presentation to the Council on the fundamentals and measurement of vibrations. A copy of the slides used by Mr. Peppin is attached to these minutes.

Following the presentation, Mr. Powell asked Mr. Peppin for his opinion of the Department's strawman proposal that uses low frequency, air-transmitted sound as a metric for vibration. Mr. Peppin explained that this method comes from the Association of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) and that there is no data to support it. Mrs. Nancy Benner stated that air and ground-transmitted vibrations should be combined. Dr. Fred Schmitz asked how these two vibrations could be combined for measurement. Mr. Peppin stated that there is no way to do this. He also stated during the discussions that there is a new international standard for low frequency sound that applies to frequencies of 1 to 100 Hertz called "G-weighting". Dr. Luz added that in the literature, subjective annoyance from helicopters, trains and explosions increases by 10 dB when vibrations and noise from these sources are combined as compared to circumstances where they are separated. He stated that the noise and vibrations do not need to be in phase when asked by Dr. Schmitz.

- Technical and Business Presentations

During this part of the meeting invited representatives of Maryland businesses made presentations concerning the June 4 strawman proposal.

- John Erdreich, Ph. D., Ostergaard, Assoc., Acoustical Consultants

Dr. Erdreich stated that regulations should be protective, feasible and defensible. He said that the strawman proposals contained conflicting requirements that reduces their potential

effectiveness; they call for data that is not available; some of the sections are based on interpretations of the science that are taken out of context; and there is conflict between certain sections in the proposal. A written copy of Dr. Erdreich's presentation was requested and will be included with these minutes. 71

Following the presentation Dr. Schmitz noted that Dr. Erdreich was critical of the proposed regulations and asked if he could offer some recommendations on how he might develop the regulations. Dr. Erdreich said that he would need to know what kind of enforcement issues the regulations were trying to address. Mr. David Roberts asked about using the fast sound level measurement versus the slow measurement and noted that with the slow measurement, peaks could go undetected. Mr. Dave Jarinko noted that fast measurements are recognized in the literature and that slow measurements were appropriate for analog meters, however, digital meters are available now. He stated that enforcement of the regulations is complaint-driven. His measurements are taken at the complainants property line and that about half of the complaints he receives are not actionable. Dr. Erdreich noted that it is better to use the slow response when designing new facilities. Mr. Powell noted that the owners of new facilities seeking to locate in Maryland would want to be sure that they would be in compliance with regulations.

➤ Joe Miedusiewski, Maryland Electrical Cooperative

Mr. Miedusiewski stated that the local electric power industry was concerned about the costs of meeting the standards in the strawman proposal. He will provide a written copy of his presentation that will be included with these minutes. He introduced Mr. Fred Moritz, Shiner Acoustics, who made a presentation concerning costs of compliance based on a proposed electric power peaking station in Cecil County and fast measurement. Mr. Moritz will provide a copy of his presentation to be included with these minutes.

Following Mr. Moritz's presentation Mr. Jarinko stated that in his opinion, measurements of L_{dn} from steady state sources could be made unattended for less than 24 hours, and still account for extraneous sounds. He noted that the proposed project in Cecil County would increase the present background noise level in the area from 30 - 35 dBA to 60 - 62 dBA and that such an increase was unconscionable. He stated that the speakers were paid representatives of the business interests. Mr. Powell noted his belief that none of the speakers were told what to say and that they would not say anything different if speaking before a community group. He said that the speakers made factual statements about their cost for complying with the current standard and they do not know how much the cost will be for the proposed noise standard.

Mr. Grove noted that a large part of the problem is zoning, where the noise receiver is located on residentially-zoned property adjacent to legally-zoned commercial/industrial land, and what should the noise standard be in these cases. He said that the noise regulations become the court of last resort on not so much a public health issue but often a quality of life issue. He believes that the local governments need to be engaged in resolving

these issues. Mr. Roberts asked of Mr. Moritz the total cost of the power station project. Mr. Moritz stated that it was about \$400 million. He said that it would be difficult to show compliance by measurement with the proposed standards. He said that the plant is designed to operate at peak demand, day-time hours, but that it may need to start-up prior to 7 AM. 72

Dr. Luz noted that measurements could be made unattended with a string of monitors between the source and receiver, but inferring extraneous noise would be tedious. He asked Mr. Moritz if the models used in his design included meteorological effects, and if he was aware of any work done using 16Hertz active noise control. Mr. Moritz explained that the models do not include meteorological effects except the inversion case, and that he did not feel that active controls were technically feasible. Mr. Powell asked Mr. Moritz if he was aware of other states with standards for 16 Hertz noise, and was he aware of data available for existing power plants to use to determine how many would or would not comply with the standards in the strawman proposal. Mr. Moritz said he was not aware of low frequency standards in other states or of a database on power plant compliance.

➤ Robert G. Smith, representing Made in Maryland

Mr. Smith distributed copies of excerpts from the Environment Article concerning the Council and selected quotations from USEPA's "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety" March 1976. He introduced Mr. Eric Wood, Acentech, Acoustical Consultants who made a presentation on his comments on the strawman proposal. A copy of Mr. Wood's presentation is attached to these minutes. At the conclusion of Mr. Wood's discussion, Mr. Smith also made a presentation on the strawman proposal. He was asked to provide a written copy of his presentation that will be added to the minutes.

Following Mr. Smith's presentation Mr. Powell asked the cost of the variance request referenced by Mr. Smith. He stated that the cost was \$75,000 and took six months to obtain. Mr. Powell asked Mr. Wood if neighboring states have any thing like the strawman proposal. Mr. Wood stated that he was not aware. Mr. Roberts noted that the Committee could make recommendations to the Department on noise control rules. Mrs. Benner questioned the right of businesses to damage the public's quality of life. Mr. Smith stated that the Council should make an informed decision on the proposed standards that balances quality of life with the impact on businesses, hospitals, nursing homes, the University of Maryland and other facilities. Dr. Luz noted that the standards are not that different than those in Germany.

➤ Ron Nelson, representing Made in Maryland

Mr. Nelson made a presentation stressing that the impacts of statewide regulations are difficult to anticipate and that businesses need to assume that regulations adopted by the state will be enforced rather than placed to the books in case they are needed to deal with complaints. He said that businesses want to know what the problem is that regulations are

intended to address and if they will be an effective solution. He stated that neither of these is the case with the proposed regulations. 13

➤ Gene Burner, representing Made in Maryland

Mr. Burner made a presentation that pointed out that the businesses affected by the proposal included non-profit concerns and small businesses where even an expense of \$10,000 could have a devastating financial impact. He also stressed that much work has been done to improve the climate for business in Maryland. The proposal would send things in the opposite direction. Finally, he emphasized the difficulty that businesses have about uncertainty in regards to regulatory compliance.

➤ Barbara Wilkins, Maryland Chamber of Commerce

Ms. Wilkins noted that the Chamber's Board of Directors has an over-riding concern about the regulatory climate and culture in Maryland, and that the strawman proposal will add to this concern. She stated the Board's concern that the proposal does not identify a widespread problem needing regulation; no economic analysis has been done to date to gauge the effects on economic growth; the proposal has widespread impacts; there has been no outreach to business; and there are significant technical and economic problems with compliance with the proposed requirements. She noted that the Chamber has received inquiries from manufacturing, utilities, grocery stores, oil companies, hospitals, landscaping, and many other types of businesses.

Mr. Powell asked if the businesses had ever taken noise readings to determine if they had a problem. Mr. Burner offered that there was not enough information about this to his knowledge, except for businesses involved in complaint situations.

There was general discussion about zoning and local government enforcement. Dr. Schmitz urged that the Council pay attention to the issue of the roles of the State and local governments. Mr. George Harman stated his opinion that prevention of noise problems is preferable to reaction after a problem has developed. He asked if the business community was open to a requirement that local governments review building permit applications for noise impacts. Mr. Nelson answered affirmatively and said that he thought there was a need to re-focus on the local government role as intended when the noise statute was enacted. Mr. Grove stated that the issue should not be business versus communities. He noted that there are many cases where businesses have cooperated in responding to noise issues and community concerns, and that there is a need to respect both parties' rights and responsibilities. He also noted that there are reasonable and unreasonable complaints filed with the Department, and that sometimes the real community issue is something other than noise. He suggested that a large number of complaints are received because of local government inactivity. Mr. Powell noted that the Rockville quarry case illustrates the importance of local zoning decisions in these issues. Mr. Grove asked for input from the Maryland Realtors Association representative, Susan Mitchell, about individuals seeking to

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buy homes in areas where there may be noise problems. Ms. Mitchell said that there is no specific data on noise levels. She is unaware of any disclosure requirements. Mr. Nelson thought that disclosure requirements would not be effective.

Mr. Powell asked if there is information on noise levels from heat pumps in townhouse settings. Mr. Roberts noted a study by DHMH on heat pumps in the past and that there is an industry rating system. Mr. Jarinko said that heat pumps are quieter than in the past. He thinks that the 55 – 65 dBA standard can be met. Mr. Powell asked how many homeowners would be affected by the strawman. There was general discussion about heat pump issues.

Old Business

- Auto Racing Facilities

Representatives of the Maryland auto racetrack industry gave presentations. These included Mr. Royce Miller, owner of the Maryland International Raceway, Budd's Creek, St. Mary's County, Mr. Bob Lane, NHRA, and Mr. Terry Wilchur, Allegany County Speedway. All three discussed the positive economic impacts of these facilities on nearby communities. Mr. Miller pointed out that there are 5 dragways and 3 oval tracks in Maryland. He noted that only a few complaints have been made about tracks other than Cecil County Dragway. He stated his concern that proposed changes to the regulations would negatively impact the industry by requiring the installation of mufflers on cars in order to attain compliance with noise standards, and limit the days and times of events. He appealed to the Council to let local officials deal with the "unreasonable" people who move near a track and then complain about the noise. Mr. Miller stated that increased regulation would cause his track to lose nationally televised races, and would deny the enjoyment of auto racing to many thousands of local fans. Mr. Lane said that the proposal would make it prohibitive for tracks to operate in Maryland. Sanctioning organizations would take their events to neighboring states. Fans could easily attend these other facilities.

Following the presentations there was general discussion about raceway noise. Mr. Roberts asked if there are rules that prohibit mufflers on racecars. Mr. Miller stated that they are not prohibited but the structure of the racecars does not allow mufflers to be installed. Mr. Lane believes that mufflers will be used in the future with amateur cars. Dr. Schmitz asked if noise output is greater or less than in the past. Mr. Lane said noise levels are greater than in the 1960's with professional cars and about the same for amateur cars and that hours of operation are less. Mr. Wilchur said that most of the revenue he receives is from professional racing. Mr. Miller stated that nitromethane fuel has not been used at Maryland tracks for twenty years. Dr. Luz asked the presenters if they supported the idea of disclosure of noise levels, perhaps using noise contour maps similar to those for airports. Mr. Miller and Mr. Lane expressed support and thought that such an approach would help improve zoning decisions and reduce future complaints.

- Maryland Farm Bureau

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Valerie Connelly, representing the Bureau made comments about the proposed regulations concerning removing exemptions for some agricultural field equipment. She noted that Mr. Harman related to her that MDE does not receive a lot of complaints about farm equipment and that usually farmers are able to resolve complaints. The Bureau is concerned about the effect of additional regulatory requirements on the economic viability of farming. Farm product prices are set nationally and do not take local requirements into account. Grain dryers have to be operated when needed. She noted the existence of the 1998 "Right to Farm" law that in some of the Counties there are agricultural reconciliation boards to deal with nuisance problems associated with farming. Ms. Connelly urged that the existing exemptions for farm equipment be maintained. She noted that the Delmarva poultry industry supports the same position.

- Gun Clubs

There was discussion about providing additional opportunity for input from gun club owners. It was decided that the owners would be invited to attend the September 10th meeting.

Public Input Session

- Mr. Sandy Weymouth played an audiotape of noise from a jet car and other racing at the Cecil County Dragway. The recordings were made from his property and closer to the track. He expressed concern about expansion of track operation with more noise and longer periods of noise, some occurring after 11 PM.
- Ms. Pat Bucher explained that she was told in the 1980's that the Cecil County Dragway track operated until 6 PM. Since then the hours and the noise levels from the track have increased. She noted that residents have spoken to the County commissioners and the track owners. She said the track frequently operates after 12:15 – 12:30 at night.
- Mr. Dan Schultz played a tape recording of noise from the Cecil County Dragway. The recordings were made inside his house late in the evening. He noted that the noise problem there has gotten worse over time and hours of operation expanded. He responded to some of the assertions made earlier in the meeting by the racetrack representatives about the local economic benefits of track racing.

Mr. Powell noted that there were three environmental/ economic studies made by the racing industry. He offered to obtain copies for the Council members. Mr. Grove asked that any other studies or information be provided for distribution to the Council and Committee.

Mr. Grove thanked everyone for coming to the meeting. The next meeting will be on September 10th at 9:30 AM.

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DRAFT
MEETING AGENDA

ENVIRONMENTAL NOISE ADVISORY COUNCIL
AND THE INTERAGENCY NOISE CONTROL COMMITTEE

July 16, 2001
9:00 AM to 3:00 PM
Chesapeake Conference Room - MDE (second floor)

- 9:00 Welcome and Introductions
- 9:05 Outline of Process and Agenda
 - a. Today's Meeting
 - Technical and business presentations
 - Public input 3:00 to 3:30 (sign up sheet) – 5-minute presentations
 - b. Deliberations and Development of Recommendations
 - October and November
- 9:10 Review of minutes from May and June
- 9:15 Richard Peppin – sound and vibration consultant – invited by MDE
- 10:00 John Erderich - Ostergaard Associates – sound and vibration consultant – invited by industry
- 10:30 break
- 10:45 Frederic Moritz – Shiner Associates, Inc., Chicago, IL - Old Dominion Electric
- 11:15 Bob Smith and Eric Wood – Made in Maryland (MADE) –
- 12:00 Lunch
 - Council and Committee members lunch provided
- 1:00 Ron Nelson, Gene Burner, Barb Wilkins – General Business Interests
- 1:30 Royce Miller – MD Int'l Raceway and others – Representing Race Track Interests
- 2:15 Valerie Connelly – Maryland Farm Bureau
- 3:00 Public Input Session – 5- minutes presentations
- 3:30 Adjourn

Next Meeting: Monday, September 10, 2001 – 9:00 to 12:00

JUL 9 2001

Noxell Corporation

A Procter & Gamble Company

01-0671

77

CARROLL A. BODIE
Vice President
General Counsel & Secretary

11050 York Road
Hunt Valley, Maryland 21030-2098

July 5, 2001

The Honorable Jane T. Nishida
Secretary
Maryland Department of the Environment
2500 Broening Highway
Baltimore, MD 21224

RE: **Proposed Noise Regulations**

Dear Secretary Nishida:

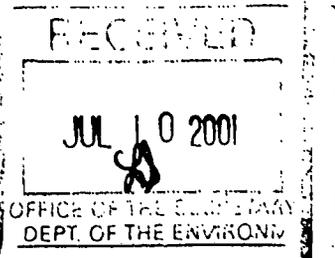
We have been advised that there is currently before the Noise Advisory Council proposals that will dramatically reduce the nighttime noise standard by more than 75%, and an air transmitted vibration standard utilizing low frequency options. We believe these proposals are neither financially nor technically feasible.

Noise complaints generated within residential neighborhoods bordering industrial facilities are issues for local zoning officials. Such isolated community problems do not justify a statewide regulatory restriction that creates burdensome compliance costs. The proposed regulations appear to specifically target certain industries, but effectively apply to many types of businesses. The potential impact is sweeping, especially as residential development may encroach upon existing industrial sites. The Department of Environment should undertake an economic impact analysis prior to proposing such a significant regulatory change.

Attempts to impose this restrictive standard on Maryland businesses have potentially serious economic consequences for the state's economic growth. We urge the Department to not go forward with the regulatory proposal reducing noise limits.

Sincerely,





01-0678

7

PASADENA BUSINESS ASSOCIATION

P.O. BOX 861
Pasadena, Maryland 21123-0861

July 9, 2001

The Honorable Jane T. Nishida
Secretary
Maryland Department of Environment
2500 Broening Highway
Baltimore, Maryland 21224

RE: Proposed Noise Regulations

Dear Honorable Jane Nishida:

I am concerned that the regulatory proposal currently before the Noise Advisory Council will create tremendous financial hardship to achieve compliance. Reducing the nighttime noise standard by more than 75% is extreme and unjustified. Likewise, imposing an air transmitted vibration standard is unprecedented. Business with continuously operating equipment will find that doing business in Maryland is neither financially nor technically feasible.

Noise complaints generated within residential neighborhoods bordering industrial facilities are issues for local zoning officials. Such isolated community problems do not justify a statewide regulatory restriction that creates burdensome compliance costs. The proposed regulations appear to specifically target certain industries, but effectively apply to many types of businesses. The potential impact is sweeping. The Department of Environment should undertake an economic impact analysis prior to proposing such a significant regulatory change.

Attempts to impose this restrictive standard on Maryland businesses have potentially serious economic consequences for the state's economic growth. On behalf of the Pasadena Business Association and our 265 members, I urge the Department to not go forward with the regulatory proposal reducing noise limits.

Sincerely,

Sharrie K. Wade, Treasurer
Pasadena Business Association

SKW:pdf

01-0679

79

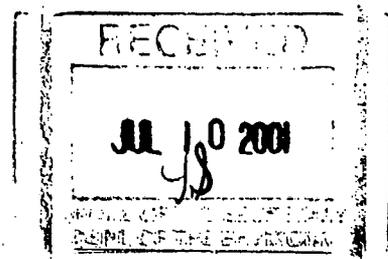
Cecil County Chamber of Commerce

P.O. Box 96 -- 233 East Main St. -- Elkton, MD 21922 -- (410) 392-3833 -- Fax (410) 392-6225
www.cecilchamber.org -- E-Mail: chamber@cecilchamber.org



July 9, 2001

The Honorable Jane T. Nishida, Secretary
MD Department of the Environment
2500 Broening Highway
Baltimore, Maryland 21224



RE: Proposed Noise Regulations

Dear Secretary Nishida:

The Cecil County Chamber of Commerce wishes to express our concern regarding the regulatory proposal before the Noise Advisory Council regarding reducing the nighttime noise standard by 75%. The potential economic impact this purposed regulation will have on our county has serious implication to countless businesses in Cecil County.

I have polled several leading industries in our community and they could not meet these extreme new standards, calling them financially burdensome and technically unfeasible.

Cecil County, a low wealth area, not only borders business friendly Delaware and Pennsylvania, but also competes with them to recruit new business and industry to our area. New Jersey too, is merely 30 minutes away. This regulation would add, yet another layer of bureaucracy and red tape in our efforts to encourage businesses to locate here.

Cecil County is also a rural community having agriculture production as one of our leading industries. The stationary restriction will place undue burden on our local farmers, as well.

Finally, Cecil County's 2nd largest tourist attraction, the Cecil County Dragway, with over 35 years presence in our community, is an important business in our area. Their ability to operate would be ended and a long-standing tradition in our community would terminate, as well.

The Cecil County Chamber urges the Department to discontinue pursuing this proposed regulation and allow these issues to be addressed by local zoning ordinances.

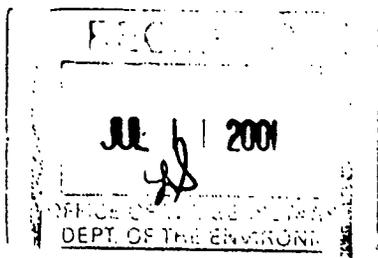
Sincerely yours,

Suzan F. Doordan
Executive Director

SFD/

- 2000-2001 Board of Directors**
- James Brady, President
William H. Brady, Inc.
 - Deborah Carter, Vice Pres.
Buttonwood Beach R.V.
 - Stewart Lee, Treasurer
County Banking & Trust
 - William Hart Jr., Past Pres.
Hart Construction Co.
 - Kurt Barwis
Union Hospital
Health System
 - Keith Baynes, Esq.
Keith Baynes, Law Office
 - Rick Carroll
W.L. Gore Associates
 - James Crouse
Elkton Alliance
 - Wilma Denton
Denton Spring Water
 - Ken Gates
Connectiv Power Delivery
 - Mary Ioppolo
Inn at the Canal
 - Marilyn Maurer
Sleep Inn

"Our mission is to assure a strong, viable economic climate in Cecil County. As the primary representative of business and industry on legislative and regulatory matters, the Cecil County Chamber of Commerce promotes a sound economic environment."



01-0692
①

Trigen Energy Baltimore
One North Charles Street
Baltimore, MD 21201
telephone: 410 649 2200
facsimile: 410 649 2201

July 6, 2001

The Honorable Jane T. Nishida
Secretary
Maryland Department of the Environment
2500 Broening Highway
Baltimore, MD 21224

Mr. George Harman
Environmental Planning and Analysis
Maryland Department of the Environment
2500 Broening Highway
Baltimore, MD 21224

Subject: Proposed changes to COMAR 26.02.03

Dear Secretary Nishida and Mr. Harman,

I am writing to express concern regarding the proposed revision of nighttime noise standards under COMAR 26.02.03 and its potential impact on businesses and local government within the State of Maryland.

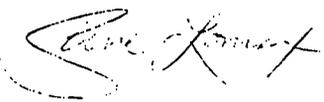
First, this regulatory proposal will result in undue financial hardship to many businesses within Maryland. The implementation of such a proposal, ultimately, would require businesses, as well as the State, to perform costly noise testing, monitoring, and abatement. These expenditures would be a significant misallocation of resources that could be better utilized, when necessary, on a case-specific basis. Further, the regulation stipulates in 26.02.03.02 A(1) that it must provide for "due consideration to technical and economic factors". Has the Maryland Department of the Environment performed any cost analyses to explore the financial implications of this proposal? Have reasonable abatement cost guidelines been drafted? These are pivotal questions that must be answered prior to proceeding with this rulemaking.

Second, noise standards and enforcement can be and have been effectively managed at the local level. This proposal appears to lessen the ability of local zoning officials to deal with siting and zoning issues on a case-specific basis. Also, the proposal seems to unfairly target 'point' sources, while exempting 'mobile' sources, as well as the construction, agriculture, and transportation industries. Does the noise from those sources have any less impact on the residential areas bordering those sources? In short, the basis for these exemptions seems arbitrary. In fact, I would reason that if any exemptions are made, they ought to apply to energy services companies, such as Trigen-Baltimore Energy Corp., which provide essential life services, such as heating, cooling, and electric services to hospitals, universities, industries, and residential and commercial buildings.

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Based on the issues cited above, I request that the proposed changes not be approved.

Sincerely,



Steve Lomax
Environmental, Health & Safety Manager

01-0694.

02

O'CONOR, PIPER & FLYNN 

An NRT Mid-Atlantic Company

James Piper III
Executive Vice President

JUL 12 2001
DEPT. OF THE ENVIRONMENT

July 11, 2001

The Honorable Jane T. Nishida
Secretary
Maryland Department of the Environment
2500 Broening Highway
Baltimore, Md. 21224

Re: Proposed Noise Regulations

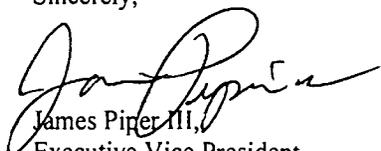
Dear Mrs. Nishida,

I am concerned that the regulatory proposal currently before the Noise Advisory Council will create tremendous financial hardship to achieve compliance. Reducing the nighttime noise standard by more than 75% is extreme and unjustified. Likewise, imposing an air transmitted vibration standard is unprecedented. Businesses with continuously operating equipment will find that doing business in Maryland is neither financially nor technically feasible.

Noise complaints generated within residential neighborhoods bordering industrial facilities are issues for local zoning officials. Such isolated community problems do not justify a statewide regulatory restriction that creates burdensome compliance costs. The proposed regulations appear to specifically target certain industries, but effectively apply to many types of businesses. The potential impact is sweeping. The Department of Environment should undertake an economic impact analysis prior to proposing such a significant regulatory change.

Attempts to impose this restrictive standard on Maryland businesses have potentially serious economic consequences for the state's economic growth. I urge the Department to not go forward with the regulatory proposal reducing noise limits.

Sincerely,


James Piper III,
Executive Vice President

01-0670

July 2001

The Honorable Jane T. Nishida
Secretary
Maryland Department of the Environment
2500 Broening Highway
Baltimore, MD 21224



**AMERICAN
YEAST**

43

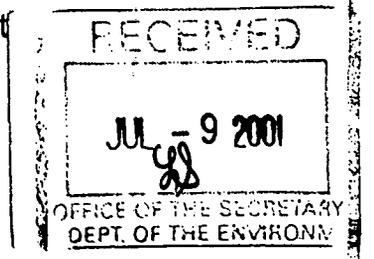
A Subsidiary of LALLEMAND, INC.

AMERICAN YEAST CORP.
8215 BEACHWOOD ROAD
BALTIMORE, MD 21222
TELEPHONE 410-477-3700
FAX 410-477-2438

Mr. George Harman
Environmental Planning and Analysis
Maryland Department of the Environment
2500 Broening Highway
Baltimore, MD 21224

RE: Proposed Noise Regulations

Dear:



I am concerned that the regulatory proposal currently before the Noise Advisory Council will create tremendous financial hardship to achieve compliance. Reducing the nighttime noise standard by more than 75% is extreme and unjustified. Likewise, imposing an air transmitted vibration standard is unprecedented. Businesses with continuously operating equipment will find that doing business in Maryland is neither financially nor technically feasible.

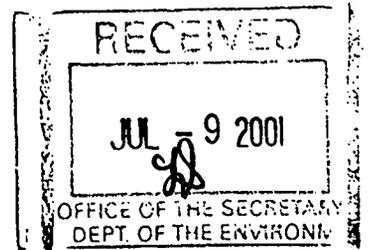
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Attempts to impose this restrictive standard on Maryland businesses have potentially serious economic consequences for the state's economic growth. I urge the Department to not go forward with the regulatory proposal reducing noise limits.

Sincerely,

July 6, 2001

The Honorable Jane T. Nishida
Secretary
Maryland Department of the Environment
2500 Broening Highway
Baltimore, MD 21224



Re: Proposed Noise Regulations

Dear Secretary Nishida,

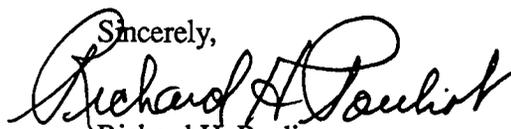
I am concerned that the regulatory proposal currently before the Noise Advisory Council will create tremendous financial hardship to achieve compliance. I have two Engineering degrees and I have designed sound isolation structures.. I have no concept how to measure or to practically abate air transmitted vibration.

Reducing the nighttime noise standard by more than 75% is extreme and unjustified. Likewise, imposing an air transmitted vibration standard is unprecedented. Businesses with continuously operating equipment will find that doing business in Maryland is neither financially nor technically feasible.

Noise complaints generated within residential neighborhoods bordering industrial facilities are issues for local zoning officials. Such isolated community problems do not justify a statewide regulatory restriction that creates burdensome compliance costs. The proposed regulations appear to specifically target certain industries, but effectively apply to many types of businesses. The potential impact is sweeping. The Department of Environment should undertake an economic impact analysis prior to proposing such a significant regulatory change.

Would the proposed standard apply to State Highways, and State Highway facilities such as Domar Buildings housing road salt and sand? I was in the construction industry and your proposed ban on back-up warnings conflicts with MOSHA Standards and could create significant safety hazards. Pray tell me, what industry (s) are you trying to ban from the state of Maryland?

Attempts to impose the restrictive standard on Maryland businesses have potentially serious economic consequences for the state's economic growth. I urge the Department to not go forward with the regulatory proposal reducing noise limits.

Sincerely,

Richard H. Pouliot

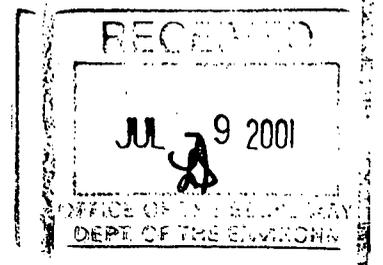


01-0668
45

ST. MARY'S COUNTY CHAMBER OF COMMERCE

Proud of our Past, Committed to our Future!

The Honorable Jane T. Nishida
Secretary
Maryland Department of the Environment
250 Broening Highway
Baltimore, MD 21224



RE: Proposed Noise Regulations

Dear Judge Nishida:

I am concerned that the regulatory proposal currently before the Noise Advisory Council will create tremendous hardship to achieve compliance. Reducing the nighttime noise standard by more than 75% is extreme and unjustified. Likewise, imposing an air transmitted vibration standard is unprecedented. Businesses with continuously operating equipment will find that doing business in Maryland is neither financially or technically feasible.

Noise complaints, generated with the residential neighborhood bordering industrial facilities are issues for local zoning officials. Such isolated community problems do not justify a statewide regulatory restriction that creates burdensome compliance costs. The proposed regulations appear to specifically target certain industries, but effectively apply to many types of businesses. The potential impact is sweeping. The Department of Environment should undertake an economic impact analysis prior to proposing such a significant regulatory change.

Attempts to impose this restrictive standard on Maryland businesses have potentially serious economic consequences for the state's economic growth. I urge the Department to not go forward with the regulatory proposal reducing noise limits.

Sincerely,

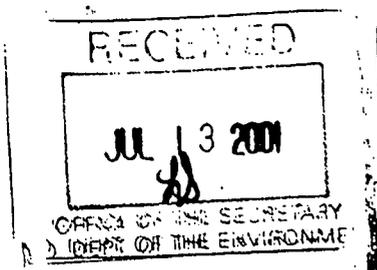
Janet E. Cook
Janet E. Cook
Executive Director

28290 Three Notch Road, Mechanicsville, MD 20659

301-884-5555 ✦ 301-884-2149 fax

info@smcchamber.com

www.smcchamber.com



July 11, 2001

The Honorable Jane T. Nishida, Secretary
Maryland Department of the Environment
2500 Broening Highway
Baltimore, MD 21224

Dear Secretary Nishida:

We are concerned that the regulatory proposal currently before the Noise Advisory Council will create tremendous financial hardship for businesses to achieve compliance. Reducing the nighttime noise standard by more than 75% is extreme and unjustified. Likewise, imposing an air-transmitted vibration standard is unprecedented.

Noise complaints generated within residential neighborhoods bordering industrial facilities are issues for local zoning officials. Such isolated community problems do not justify a statewide regulatory restriction that creates burdensome compliance costs. The proposed regulations appear to specifically target certain industries, but effectively apply to many types of businesses. The potential impact is sweeping. The Department of Environment should undertake an economic impact analysis prior to proposing such a significant regulatory change.

We are specifically concerned about how this regulatory proposal would impact restaurants and bars with outdoor dining and entertainment. Enforcement of such a proposal could effectively reduce their earnings during their "prime" season.

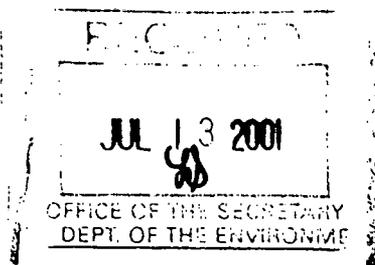
Attempts to impose this restrictive standard on Maryland businesses have potentially serious economic consequences for the State's economic growth. We strongly urge the Department to reconsider this regulatory proposal.

Sincerely,

Marcia S. Harris
President & CEO
Restaurant Association of Maryland

STEVE F. DE CASTRO BUILDING
6301 HILLSIDE COURT
COLUMBIA, MD 21046-1048

TELEPHONE 410 290 6800
FACSIMILE 410 290 6882
www.marylandrestaurants.com



01-0704

Henry G. Hagan, CLU, FLMI
President
Chief Executive Officer

47

MONUMENTAL LIFE INSURANCE CO.

2 East Chase Street
Baltimore, Maryland 21202
Telephone: (410) 347-5001
Fax: (410) 347-5000
HHagan@aegonusa.com

July 10, 2001

The Honorable Jane T. Nishida
Secretary
Maryland Department of the Environment
2500 Broening Highway
Baltimore, Maryland 21224

RE: Proposed Noise Regulations

Dear Secretary Nishida:

I am concerned that the regulatory proposal currently before the Noise Advisory Council will create tremendous financial hardship to achieve compliance. Reducing the nighttime noise standard by more than 75% is extreme and unjustified. Likewise, imposing an air transmitted vibration standard is unprecedented. Businesses with continuously operating equipment will find that doing business in Maryland is neither financially nor technically feasible.

Noise complaints generated within residential neighborhoods bordering industrial facilities are issues for local zoning officials. Such isolated community problems do not justify a statewide regulatory restriction that creates burdensome compliance costs. The proposed regulations appear to specifically target certain industries, but effectively apply to many types of businesses. The Department of Environment should undertake an economic impact analysis prior to proposing such a significant regulatory change.

Attempts to impose this restrictive standard on Maryland businesses have potentially serious economic consequences for the state's economic growth. I urge the Department to not go forward with the regulatory proposal reducing noise limits.

Sincerely,

HGH/lwh

KOP-FLEX

Emerson Power Transmission Corp

Kop-Flex, Inc.
P.O. Box 1696
Baltimore, MD 21203-1696
Fax: (410) 787-8425

July 9, 2001

The Honorable Jane T. Nishida, Secretary e-Mail: jnishida@mde.state.md.us
Maryland Department of the Environment
2500 Broening Highway
Baltimore, MD 21224

Dear Secretary Nishida,

I am concerned that the regulatory proposal currently before the Noise Advisory Council will create tremendous financial hardship to achieve compliance. Reducing the nighttime noise standard by more than 75% is extreme and unjustified. Likewise, imposing an air transmitted vibration standard is unprecedented. Businesses with continuously operating equipment will find that doing business in Maryland is neither financially nor technically feasible.

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Attempts to impose this restrictive standard on Maryland businesses have potentially serious economic consequences for the state's economic growth. I urge the Department not to go forward with the regulatory proposal reducing noise limits.

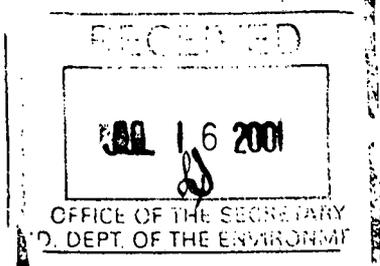
Best regards,

Robert K. Dogge
V.P., Manufacturing

**HARRIS
CRAB
HOUSE**



LOCATION: Kent Narrows Way North
Grasonville, Maryland



01-0722

OWNERS: Jerry & Pat Harris
Art & Karen Oertel

89

P.O. Box 145
Chester, Maryland
21619

(410)827-8104
Fax: (410)827-9057

The Honorable Jane T. Nishida
Secretary
Maryland Department of the Environment
2500 Broening Highway
Baltimore, MD 21224

RE: Proposed Noise Regulations

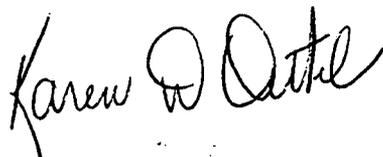
Honorable Jane T. Nishida

I am concerned that the regulatory proposal currently before the Noise Advisory Council will create tremendous financial hardship to achieve compliance. Reducing the nighttime noise standard by more than 75% is an extreme and unjustified. Likewise, imposing an air transmitted vibration standard is unprecedented. Businesses with continuously operating equipment will find that doing business in Maryland is neither financially nor technically feasible.

Noise complaints generated within residential neighborhoods bordering industrial facilities are issues for local zoning officials. Such isolated community problems do not justify a statewide regulatory restriction that creates burdensome compliance costs. The proposed regulations appear to specifically target certain industries, but effectively apply to many types of businesses. The potential impact is sweeping. The Department of Environment should undertake an economic impact analysis prior to proposing such significant regulatory change.

Attempts to impose this restrictive standard to Maryland businesses have potentially serious economic consequences for the states economic growth. I urge the Department to not go forward with the regulatory proposal reducing noise limits.

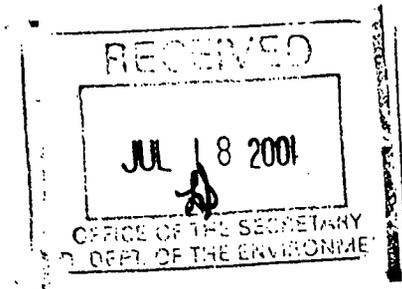
Sincerely,



Karen D. Oertel



SAFeway INC.
4551 FORBES BLVD.
LANHAM, MD 20706-4344



01-074400

July 10, 2001

The Honorable Jane T. Nishida
Secretary
Maryland Department of the Environment
2500 Broening Highway
Baltimore, MD 21224

Dear Secretary Nishida:

Safeway Inc., with 69 supermarkets in the State of Maryland and more than 6,000 employees, is concerned to learn that there is a regulatory proposal before the Noise Advisory Council that could create a tremendous expense to achieve compliance. Reducing the nighttime noise standard by more than 75 percent is extreme and unjustified. When we make improvements to a store, we do so expecting a certain acceptable rate of return on our investment. However, the kind of alterations required by this regulation, specifically to our rooftop compressors, would not result in any tangible benefit for our business, which operates on a very thin profit margin.

Safeway prides itself on working closely with our neighbors to mitigate any concerns with regard to noise. In some stores we have made adjustments and even changed delivery schedules to accommodate requests. However, imposing a standard for all our stores, regardless of the impact on neighbors, is over-reaching and anti-business.

Even though the proposed regulations may have good intentions, imposing them statewide for businesses that may not have a negative impact on others is not good public policy. At the very least, there needs to be an economic impact analysis to determine if the cost to business justifies the benefit. Please consider that businesses pay more in taxes and have just as much right to government protection as private citizens.

I urge the Department of the Environment to put the brakes on the regulatory proposal reducing noise limits.

Sincerely,

Gregory A. TenEyck
Director of Public Affairs
Eastern Division

Cc: Mr. George Harman
Mr. Bruce Bereano
Ms. Barbara Wilkins

ELECTRICAL GENERAL CORPORATION

8265A Patuxent Range Road, Jessup, MD 20794
301-725-5700

July 12, 2001

Mr. George Harman, Environmental Planning and Analysis
Maryland Department of the Environment
2500 Broening Highway
Baltimore, MD 21224

RE: Proposed Noise Regulations

I am concerned that the regulatory proposal currently before the Noise Advisory Council will create tremendous financial hardship to achieve compliance. Reducing the nighttime noise standard by more than 75% is extreme and unjustified. Likewise, imposing an air transmitted vibration standard is unprecedented. Businesses with continuously operating equipment will find that doing business in Maryland is neither financially nor technically feasible.

Some of these proposals look, to me, like they were the result of some non-productive people without much thought of how they will effect or benefit the rest of the world. You will do away with night time construction ~ even closing a truck door or gang box will be a violation ~ and trying to enforce these rules will clog the courts that are already overloaded.

Noise complaints generated within residential neighborhoods bordering industrial facilities are issues for local zoning officials. Such isolated community problems do not justify a statewide regulatory restriction that creates burdensome compliance costs. The proposed regulations appear to specifically target certain industries, but effectively apply to many types of businesses. The potential impact is sweeping. The Department of Environment should undertake an economic impact analysis prior to proposing such a significant regulatory change.

Attempts to impost this restrictive standard on Maryland businesses have potentially serious economic consequences for the state's economic growth. I urge the Department to not go forward with the regulatory proposal noise limits.

Sincerely,

James R. Brown
Chairman of The Board



Office of Director
ENVIRONMENTAL SERVICES

P O Box 1537 / Salisbury MD 21802
PHONE: (410) 860-4232 FAX: (410) 341-2517
email: john.chlada@perdue.com

July 13, 2001

The Honorable Jane T. Nishida
Secretary
Maryland Department of the Environment
2500 Broening Highway
Baltimore, Maryland 21224

Mr. George Harman
Environmental Planning and Analysis
Maryland Department of the Environment
2500 Broening Highway
Baltimore, Maryland 21224

RE: Proposed Noise Regulations

Dear Secretary Nishida:

I am concerned that the regulatory proposal currently before the Noise Advisory Council will create extreme hardship for Maryland's farm families and oversteps limits on the state's authority to impose local zoning regulations.

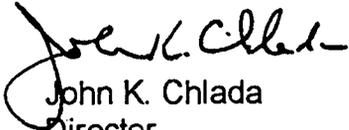
Reducing the nighttime noise standard by more than 75 percent is unrealistic. Likewise, imposing an air-transmitted vibration standard is unprecedented. The new noise standards for stationary agricultural field machinery will place an unreasonable burden upon the state's family farms and threatens the economy of Maryland's rural communities. Most, if not all, of the existing equipment was *not* designed for the installation of additional control equipment. Forcing Maryland farmers to install new equipment would push them into an even more uncompetitive position. In many cases, the proposed noise standards will leave farm families with no choice but to abandon their farming legacy and sell their agricultural open-space land for residential or commercial development. These proposed new standards would also harm the agricultural businesses – such as feedmills and grain dryers – upon which Maryland's farmers depend.

93

Furthermore, Article 66B forbids the state to impose zoning regulations or restrictions on local government. Historically, noise control and protection of surrounding property use are included in local government's development of zoning regulations. Imposition of the proposed new noise standards clearly crosses the line established in Article 66B and infringes on the rights of local government.

I strongly urge the Department not to go forward with its regulatory proposal reducing noise limits. I also hope the Department will instead pursue policies that recognize the economic importance of agriculture and the role that properly managed, *economically viable* farms play in preserving our open spaces and protecting our environment.

Sincerely,



John K. Chlada
Director
Environmental Services
Perdue Farms Incorporated



171 Conduit Street, Annapolis, MD 21401

410-269-1440 Fax 410-269-0325 • E-mail: MDRetail@aol.com • www.mdra.org

July 11, 2001

Mr. Michael Powell, Esq.
Environmental Noise Advisory Council
C/o Gordon Feinblatt LLC
233 E. Redwood Street
Baltimore, MD 21202-332

Dear Mr. Powell:

It is my understanding that there will be a joint meeting on July 16 involving the Noise Advisory Council and the Interagency Noise Control Committee regarding the proposed change in the Maryland noise limits. I cannot attend that meeting, but I wanted you to know as the business representative of the serious concerns of the retail community regarding this proposed change.

The Maryland Retailers Association (MRA), consisting of over 800 members and including most of the national and regional retailers operating in Maryland, is the retail community's major statewide trade association operating in Maryland. Within our organization are EPIC Pharmacies, Maryland-Delaware-Washington, D.C. Jewelers Association, Maryland Home Furnishings Association, Antique Dealers Association of Maryland and the Mid-Atlantic Food Dealers Association.

The proposed change involves a substantial lowering of the residential noise standard. **MRA opposes this proposed reduction. Isolated and sporadic complaints do not justify such a sweeping change, let alone without considering the significant economic impact to merchants and other businesses.**

Particularly impacted are food and convenience store retailers, which for customer convenience are often located near or adjacent to residential areas. At present, there are many so-called "QUIET ZONE" areas throughout the state of Maryland. These locations are normally where the commercial property is adjacent to a residential property. Sound power level readings are taken at the property line and must not exceed 65 dBA daytime and 55 dBA nighttime.

There are essentially two sources of noise generated from a food store. The first source is from stationary refrigeration and air-conditioning equipment which is located on the building exterior, either on the roof or on grade level at the rear of the building. This equipment of course is necessary to preserve perishable products in order to comply with Health Department product temperature codes. Refrigeration equipment is designed to operate continuously around the clock and simply cannot be shut down at night. Specialized low noise equipment may be

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purchased at a premium price, however, there is still a basic sound power level associated with all equipment. The second noise source is related to delivery and/or transportation equipment ranging from diesel truck engines, diesel driven transport refrigeration units, and noise associated with loading and unloading trailers and box trucks.

There is also background noise for a given location consisting of environmental noises, which are not components of the sound resulting from a noise source such as HVAC, refrigeration, and power generation equipment. Background noise and equipment noise constitute total sound which is the value dictated by the code. It is not uncommon to have a background sound level of 55 dBA without any specific equipment noise source. Obviously, the operation of any piece of equipment in a high background noise environment would exceed code values if the background itself has already exceeded code values. The requirement of a lower allowable sound power level code would be ludicrous.

As you can see, it is difficult, if not sometimes impossible, for food and convenience stores to meet the present noise limits. If it is the policy of the State of Maryland to preserve land by encouraging dense development with employment and business centers adjacent to residential areas, some accommodation and balance is needed. The proposed reduction provides neither and we urge its rejection.

Sincerely,



Tom S. Saquella
President

Cc: George Harman, MDE

JAMISON DOOR COMPANY

July 25, 2001

*See attached 9/6
email from
Harman
7/25/01
JD*

The Honorable Jane T. Nishida
Secretary
Maryland Department of the Environment
2500 Broening Highway
Baltimore, Maryland 21224

Mr. George Harman
Environmental Planning and Analysis
Maryland Department of the Environment
2500 Broening Highway
Baltimore, Maryland 21224

Re: Proposed Noise Regulations

Ladies and Gentlemen:

I am concerned that the regulatory proposal currently before the Noise Advisory Council will create tremendous financial hardship to achieve compliance. I believe reducing the nighttime noise standard by more than 75% is extreme and unjustified. Likewise, imposing an air transmitted vibration standard is unprecedented. Businesses with continuously operating equipment will find that doing business in Maryland is neither financially nor technically feasible.

In 1913, when this facility was built, we were on the edge of town. Now we are more than a mile into the city limits and part of a predominately residential neighborhood. Although we do not presently operate more than one shift, it is possible that would be required at some future date. This regulation would make that impossible and be a great hardship on our company.

Noise complaints generated within residential neighborhoods bordering industrial facilities are issues for local zoning officials. Such isolated community problems do not justify a statewide regulatory restriction that creates burdensome compliance costs. The proposed regulations appear to specifically target certain industries, but effectively apply to many types of businesses. The potential impact is sweeping. The Department of the Environment should undertake an economic impact analysis before proposing such a significant regulatory change.

Attempts to impose this restrictive standard on Maryland businesses have potentially serious economic consequences for the state's growth. I urge the Department not go forward with the regulatory proposal reducing noise limits.

Sincerely,

Dennis Davis
Facilities Manager



**BALTIMORE-WASHINGTON
CORRIDOR CHAMBER
of COMMERCE**

**312 MARSHALL AVENUE, SUITE 104
LAUREL, MARYLAND 20707-4824**

GLENN WILSON
Chairman of the Board
Citizens National Bank

STEPHEN CARROLL, Esq.
Chairman-Elect
Mills & Stockbridge P.C.

GLORIA BERTHOLD
Vice-Chairman & Secretary
Marketing Outsource Associates

JOHN MILLER
Vice-Chairman
Baltimore Gas & Electric

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Immediate Past Chair
Fleck Funeral Home, Inc./Service
Corporation International Affiliate

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JEFF BERNSTEIN, Esq.
Goozman, Bernstein & Markuski

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Industrial Towel Supply, Inc.

JAMES CRONK
City of Bowie

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Verizon Communications

MIKE STAED
Washington Suburban
Sanitary Commission

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JACQUELINE STURR
Putnam Publishing Co.

RONALD TROZZI, CPA
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TRACEY VEIHMAYER
Lauri Regional Hospital

CHRISTINE WALTERS, Esq.
Saul Ewing LLP

PAM YOUNG
Eys of the Needle Embroidery

H. WALTER TOWNSHEND, III
President & CEO

RAY AMBROSE
Transit Administrator

2000 BUSINESSES OF THE YEAR
The Show Place Arena
Marketing Outsource Associates, Inc.

2000 PRESIDENT'S AWARD WINNERS
Maloney Aire
(Corporate)
Jill Goozman & Martin Goozman, Esq.
Goozman, Bernstein & Markuski
(Individual)

2000 FOUNDATION HONOREE
HALL OF FAME

Added to Form letter list

301-725-4000
410-792-9714
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www.baltwashchamber.org
email: bwcc@baltwashchamber.org

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July 20 2001

The Honorable Jane T. Nishida, Secretary
Maryland Department of the Environment
2600 Broening Highway
Baltimore, MD 21224

Mr. George Harman
Environmental Planning and Analysis
Maryland Department of the Environment
2600 Broening Highway
Baltimore, MD 21224

RE: Proposed Changes to Existing Noise Regulations (COMAR 26.02)

Dear Secretary Nishida and Mr. Harman:

The regulatory proposal currently before the Noise Advisory Council will create tremendous financial hardship to achieve compliance. Reducing the nighttime noise energy level by more than 75% is extreme and unjustified. Likewise, imposing an air transmitted vibration standard is unprecedented. Businesses with continuously operating equipment will find that doing business in Maryland is neither financially nor technically feasible.

Noise complaints generated within residential neighborhoods bordering industrial facilities are issues for local zoning officials. Such isolated community problems do not justify a statewide regulatory restriction that creates burdensome compliance costs. The proposed regulations appear to specifically target certain industries, but in essence apply to many types of businesses. The potential impact is sweeping. The Department of Environment should undertake an economic impact analysis prior to proposing such a significant regulatory change.

Attempts to impose this restrictive standard on Maryland businesses have potentially serious economic consequences for the state's economic growth. I urge the Department to withdraw its regulatory proposal reducing noise limits.

Sincerely,

H. Walter Townshend
President & CEO

DRAFT
Environmental Noise Advisory Council
And
Interagency Noise Advisory Committee
Meeting Minutes
June 4, 2001, 9:30 a.m.
Chesapeake Conference Room, MDE

Members:

Council:

Senator John Astle	ex officio	present
Delegate Jake Mohorovic	ex officio	present
Dr. Stephen Epstein	MedChi	absent
Dr. George Luz	Acoustical Society	present
Dr. Fred Schmitz	U of MD	present
Michael Powell	Public (business)	present
Nancy Benner	Public	present

Committee:

Robin Grove, Chair	MDE	present
Jesse Heier	Governor's Office	absent
Bill Grabau	MOSH	absent
Ken Polcak	MDOT	absent
Fred Sherbert	DNR	present
David Roberts	DHMH	present

Guests:

George G. Gray	Lennie Stallings
Joyce Gray	Senator American Joe Miedusiewski
John Stallings	Charles L. Zeleski
Barbara Pantano	Gary Crossley
Joseph Pantano	Robert G. Smith
H. Taylor	Pat Butcher
Sandy Weymouth	Jess Butcher
Gene Burner	Dan Scholtz
Jonas Jacobson	

MDE Staff:

George Harman
Bill Parrish
Dave Jarinko
Bob Field
Heather Woods

The fifth official meeting of the Environmental Noise Advisory Council and Interagency Noise Committee was convened at 9:30 AM on June 4, 2001 at the Department of the Environment.

Agenda:

See the attached agenda for this meeting.

Meeting Minutes

Mr. Robin Grove opened the meeting with introductions of the Council and Committee members, guests, and MDE staff. Mr. Grove explained that the guests would be provided with time to provide input at about 11:30 AM.

Minutes of May 7 meeting:

Draft minutes from this previous meeting were reviewed. There being no additional comments from the Council and the Committee, the minutes for this meeting were approved. Comments from Mrs. Pantano on the April 2 meeting minutes were emailed prior to this meeting and will be incorporated into the final minutes for approval at the July 16 meeting.

Legislative Update

Mr. Grove explained that Governor Glendening recently signed SB 869/HB 1423. This action exempts from regulation those gun clubs in existence prior to January 1, 2001. SB 376 was not signed and therefore vetoed. The Council will be asked to consider the resources that MDE will need in the future. MDE may pursue civil citation authority at a later time.

New Business-Auto Racing Facilities

Mr. Harman explained the history of racetrack noise regulation in Maryland from the 1975 Noise Protection Act to the present. Racetracks are exempted from regulation except during period of 11 PM to 7 AM. Mr. Jarinko summarized the history of noise complaints arising from racetracks and the various facilities. Mr. Harman reviewed the proposed changes to ENV 3-401 that were included in the handout material. Mr. Powell noted that the cost of compliance assessment should include the effects of noise control such as mufflers on the competitiveness of the industry. He also mentioned the need to give the industry an opportunity to make presentations at the next meeting. Senator Astle noted the need to look at the effects of local zoning decisions on pre-existing businesses located in formerly isolated locations. Mr. Jarinko noted that only Montgomery County includes noise issues in its new construction permit requirements. He believes that local zoning officials in other jurisdictions need to inform developers and engineers of noise control requirements for proposed development. Mr. Field mentioned the negative effects of noise from existing land use on neighboring property rights and values. Senator Astle pointed out that in these cases, the existing land use was there first. Subsequent zoning changes made on neighboring property should not impact the existing use.

Mr. Powell noted that the way the current process works with State regulation of noise, local governments are "left off of the hook" when they make zoning decisions without consideration of noise issues. For new facilities, Mr. Powell suggested that the Council consider language, that when a local government makes a zoning decision to allow a noise related land use to proceed, it may not be subject to noise standards as strict as on other facilities. Mr. Harman noted that each

local government should be required in the noise statute to establish a noise control ordinance. However, support is lacking from legislators for putting this responsibility back on locals. Mr. Powell suggested that the Office of Planning should require that localities, in establishing zoning laws, should review the potential impacts of noise and include this requirement in ordinances within a certain period. Senator Astle thought that there should only be one standard, but a locality should not be able to make zoning changes that affect existing facilities without responsibility for the action.

Mr. Powell stated that if a local entity makes a decision and includes a noise impact assessment, the State should not second-guess that decision. He agreed with Senator Astle that after such zoning decisions are made, subsequent noise complaints would be exempted. Mr. Harman noted that compensation should be considered for installation of sound barriers or buyouts of adjacent property in these cases. Mr. Grove mentioned that MDE has conceptually encouraged local governments to take more responsibility, but that they may be cautious about taking on more responsibility due to lack of resources. He noted that most of the noise problems MDE deals with now involve past local zoning decisions and subsequent encroaching development. Dr. Schmitz stressed the importance of accountability for these kinds of zoning decisions and resulting complaints.

Mr. Harman referenced a handout with suggested regulatory changes for motor racing. His suggestion was to list motor racing as an exemption from compliance with a noise standard, but to require best available technology. Mr. Powell recommended consulting with motor racing industry representatives to determine how racing is regulated in other states. Mr. Field offered to contact the national State Attorney's General Association for this information. Mr. Powell recommended that flexibility in hours of operation be provided because of delays caused by problems on the track. Mr. Jarinko stressed the importance of having a limit on hours of operation. Mr. Grove suggested an approach that deals with the use of best available technology to control noise outside of the facility versus dealing with the race vehicles. Mr. Field pointed out difficulties in applying best available technology controls in other environmental areas. There was a general discussion about the various issues associated with control technology requirements. Mr. Harman offered to use the preceding discussions to re-draft language in recommended regulatory changes to be discussed at a later meeting.

Mr. Harman referenced a handout dated June 1, 2001 with proposed modifications for discussion on ENV Title 3 based on comments received at previous meetings and recent amendments signed into law by the Governor. He requested that the members review and comment. Senator Astle requested that the two ex officio members be added to Subtitle 3-2. There was a discussion led by Delegate Mohorovic about County representatives be added to the membership of the Council or the Committee. Mr. Field will make some language changes regarding enforcement for the next meeting.

Old Business-

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Mr. Harman referenced a handout of suggested changes to Title 26 regulations and requested review and comments from the members. He noted the need to include in this process input from agricultural interests because of changes proposed to control stationary agricultural equipment. Mr. Powell re-stated his objections to the proposed standard for air transmitted, sound-induced vibrations. There was a discussion of the best approaches for accomplishing proposed changes to the regulations and statute.

Public Input Session

Mrs. Barbara Pantano, representing the Cecil County Dragway Limitation Project (CCDLP), distributed an agenda of presentations to be made by residents of the area near the drag strip. Mr. Sandy Weymouth made the first presentation. Copies of his remarks are attached to these minutes. Mrs. Lennie Stallings spoke next about her difficulties in obtaining an equitable property tax adjustment based on the effect of the drag strip noise and traffic on her property value. Mr. John Stallings spoke about safety concerns he has with heavy truck traffic on the roadway leading to the drag strip. Mrs. Pantano mentioned the County's plan to widen the road. Mrs. Gray spoke about problems with sleeping and enjoying her porch due to the drag strip noise. Mr. H. Taylor described past efforts taken by residents to oppose the original re-zoning in the 1960's that allowed the drag strip to be first constructed. He also related how he cannot enjoy his property because of the noise and his difficulty in obtaining an equitable tax assessment adjustment for the noise.

Mr. Dan Schultz distributed copies of the Oregon noise control regulations with suggested amendments that address issues concerning the residents of the area near the Cecil County drag strip. He also distributed and discussed information concerning the toxicity and health effects of nitromethane, a fuel used by racecars and emitted into the air. He also spoke about his research into mufflers that are available for racecars. Mrs. Pat Butcher spoke about the increasing operating hours of the dragstrip and her concerns for the health of her young children due to lack of sleep caused by the noise. She stated that policy makers must consider operating hours, levels, and frequency of occurrence of noise in setting regulatory levels. She played a tape of noise generated by the racecars. Mr. Butcher spoke about the application of air pollution advisories, code red days, to the activities at the drag strip. Mr. Grove explained that compliance with the advisories is voluntary and offered to consult with the Air and Radiation Management Administration that issues the advisories. There was discussion about requirements for compliance with the VEIP by racecars. Mr. Field advised that the VEIP requirements did not apply to off-road vehicles. Mr. Grove offered to obtain additional information on both issues.

Mr. Pantano explained that he bought property and built a home for his family near the dragstrip in the 1960's with the understanding that the dragstrip was to be closed. Instead of closing, the operations were gradually expanded and noise increased, interfering with his enjoyment of his property, and reducing the value of his property. Mrs. Pantano spoke about sleep deprivation and its health effects. She distributed a copy of her presentation.

Mr. Gary Crossley, a resident near the J & P Hunting Lodge, discussed his concerns about the exemption granted to gun clubs and the enactment of SB 869. He stated that citizen's rights are not being considered. Dr. Luz noted that 24 states have exempted firing ranges.

Mr. Robert Smith representing "Made in Maryland" urged that consideration be given to re-scheduling input from the business community to the September meeting. It was decided that the next meeting set for July 16 would allow time for business interest input with additional time provided in September. The meeting will be from 9 AM to 3 PM.

Mr. Charles Zeleski representing the county environmental health directors noted that there is a problem with noise regulation when many of the health effects and corresponding noise levels are not well understood, and that quality of life and the stress of noise exposure need to be considered.

Mr. Grove thanked everyone for coming to the meeting.

June 1, 2001

PROPOSED MODIFICATIONS FOR DISCUSSION

Article - Environment

TITLE 3

Noise Control

§ 3-101.

- (a) In this title the following words have the meanings indicated.
- (b) "Committee" means the Interagency Noise Control Committee.
- (c) "Council" means the Environmental Noise Advisory Council.
- (d) "Environmental noise standard" means ~~a~~ THE INTRUDING SOUND LEVEL LIMIT SPECIFIED FOR THE ATTAINMENT OF AN ADEQUATE ENVIRONMENT. ~~goal for the limitation of noise, from all sources, that exists in a defined area under specified conditions.~~
- (e) (1) "Noise" means the intensity, frequency, duration, and character of sound.
- (2) "Noise" includes sound and vibration of subaudible frequencies.
- (f) "Political subdivision" means a county or municipal corporation of this State.
- (g) "Sound level limit" means the maximum allowable noise emission from a noise source in a defined area under specified conditions.
- (h) "Source" means any person or property from which sound originates.

§ 3-102.

- (a) The General Assembly finds:
 - (1) That the people of this State have a right to an environment that is free from any noise that:
 - (i) May jeopardize their health, general welfare, or property; or
 - (ii) Degrades the quality of their lives;
 - (2) That there is a substantial body of knowledge about the adverse effects of excessive noise on the public health, the general welfare, and property, and that this knowledge should be used to develop environmental noise standards that will protect the public health, the general welfare, and property with an adequate margin of safety; and
 - (3) That it is essential to have coordination and statewide leadership of the noise control activities of the many State agencies and the county and local governments.
- (b) It is the intent of the General Assembly that the Department shall:
 - (1) Seek appropriate resources to ensure enforcement of the sound level limits and noise control rules and regulations adopted under this title; and
 - (2) Work cooperatively with the appropriate agencies of political subdivisions in ensuring the implementation and enforcement of the requirements of this title.

§ 3-103.

- (a) Except as otherwise provided by law, and in addition to the duties set forth elsewhere in this title, the Department shall:
 - (1) Develop a plan for attaining and maintaining the environmental noise standards that are adopted;
 - (2) Coordinate all State agency programs on noise control; and

1 (3) Keep a record of each sound level limit that is adopted by any political subdivision or agency
2 of this State.

3 (b) Each State agency shall consult with the Department before adopting any sound level limit or
4 noise control rule or regulation.
5

6 **§ 3-104.**

7 The Department may obtain any federal or other funds that are available to this State for
8 purposes that are within the scope of this title
9

10 **§ 3-105.**

11 (a) (1) Except as provided in this section, this title does not limit the power of a political
12 subdivision to adopt noise control ordinances, rules, or regulations.

13 (2) A political subdivision may not adopt any noise control ordinance, rule, or regulation that is
14 less stringent than the environmental noise standards, sound level limits, and noise control rules
15 and regulations adopted under this title.

16 (3) (i) A political subdivision may not adopt any noise control ordinance, rule, or regulation,
17 including the environmental noise standards, sound level limits, and noise control rules and
18 regulations adopted under this title, that prohibits trapshooting, skeetshooting, or other target
19 shooting between the hours of 9 a.m. and 10 p.m. by a shooting sports club that is chartered and
20 in operation as of JANUARY 1, 2001. ~~July 1, 1983. However, this prohibition does not apply if~~
21 ~~the sports shooting club moves to a parcel of land that is not contiguous to the location of the~~
22 ~~club on July 1, 1983.~~

23 (THE ABOVE CHANGE WAS ENACTED UNDER SB 869/ HB 1423 IN 2001)
24

25 (ii) This paragraph does not apply in Allegany, Baltimore City, Calvert, Charles, Garrett,
26 Howard, Montgomery, St. Mary's, and Washington counties.

27 (b) Each political subdivision shall:

28 (1) Send to the Department a copy of each noise control ordinance, rule, or regulation that it
29 adopts; and

30 (2) Identify on each zoning map, comprehensive plan, or other appropriate document the sound
31 level limits that are adopted under Subtitle 4 of this title.
32

33 **§ 3-201.**

34 There is an Environmental Noise Advisory Council in the Department.
35

36 **§ 3-202.**

37 (a) (1) The Council consists of ~~5~~ 7 members appointed by the Secretary.

38 (2) Of the ~~5~~ 7 Council members:

39 (i) 1 shall be appointed from a list of at least 3 qualified individuals submitted to the Secretary by
40 the Acoustical Society of America;

41 (ii) 1 shall be a physician who specializes in hearing, appointed from a list of at least 3 qualified
42 individuals submitted to the Secretary by the Medical and Chirurgical Faculty of the State of
43 Maryland;

44 (iii) 1 shall be appointed from a list of at least 3 qualified individuals submitted to the Secretary
45 by the Chancellor of the University System of Maryland; and

1 (iv) 2 shall be appointed from the general public, AND
2 (V) 2 SHALL BE APPOINTED FROM LISTS OF QUALIFIED CANDIDATES SUBMITTED
3 BY ORGANIZATIONS REPRESENTING BUSINESS INTERESTS.

4 (3) Before appointing the members from among the general public AND THE BUSINESS
5 COMMUNITY, the Secretary shall request and consider suggestions for nominees from:

- 6 (i) The Maryland State Chamber of Commerce; AND
- 7 (ii) ~~The Maryland Transportation Federation;~~
- 8 (iii) ~~The Maryland Environmental Trust; and~~
- 9 (iv) Any other environmental groups that the Secretary selects.

10 (4) In making any appointment to the Council, the Secretary shall consider giving appropriate
11 representation to the various geographical areas of this State.

12 (b) Each member of the Council shall be a resident of this State.

13 (c) (1) The term of a member is 5 years.

14 (2) The terms of members are SHALL BE staggered TO PROVIDE FOR NO MORE THAN
15 ONE REPLACEMENT ANNUALLY. ~~as required by the terms provided for members of the~~
16 ~~Council on July 1, 1982. The terms of those members end as follows:~~

- 17 (i) ~~1 in 1983;~~
- 18 (ii) ~~1 in 1984;~~
- 19 (iii) ~~1 in 1985;~~
- 20 (iv) ~~1 in 1986; and~~
- 21 (v) ~~1 in 1987.~~

22 (3) At the end of a term, a member continues to serve until a successor is appointed and qualifies.

23 (4) A member who is appointed after a term has begun serves only for the rest of the term and
24 until a successor is appointed and qualifies.

25
26 **§ 3-203.**

27 From among the Council members, the Secretary of the Environment shall appoint a chairman, a
28 vice chairman, and a secretary of the Council.

29
30 **§ 3-204.**

31 (a) The Council shall meet at the times and places that the Secretary or the chairman determines.

32 (b) A member of the Council:

- 33 (1) May not receive compensation; but
- 34 (2) Is entitled to reimbursement for expenses under the Standard State Travel Regulations, as
35 provided in the State budget.

36 (c) The Department shall provide the Council with secretarial and stenographic assistance
37

38 **§ 3-205.**

39 (a) Before the Department adopts any environmental noise standard or sound level limit, the
40 Department shall submit the proposed environmental noise standard or sound level limit to the
41 Council for advice.

42 (b) Within 60 days after receiving a proposed environmental noise standard or sound level limit
43 from the Department, the Council shall give the Department its advice on the proposal by
44 recommending:

- 45 (1) Adoption;

- 1 (2) Rejection; or
- 2 (3) Modification

3
4 **§ 3-301.**

5 There is an Interagency Noise Control Committee.

6
7 **§ 3-302.**

8 (a) The Committee consists of:

- 9 (1) 1 member of the Governor's executive staff, appointed by the Governor; and
- 10 (2) 1 representative of each of the following departments, appointed by the Secretary of that
- 11 department:

- 12 (i) The Department of the Environment;
- 13 (ii) The State Department of Transportation;
- 14 (iii) The Department of Natural Resources;
- 15 (iv) The Department of Planning; and
- 16 (v) THE DEPARTMENT OF HEALTH AND MENTAL HYGIENE
- 17 (vi) THE DEPARTMENT OF LABOR, LICENSING, AND REGULATION, MARYLAND
- 18 OCCUPATIONAL SAFETY AND HEALTH, AND
- 19 (v-) (VII) Any other principal department that develops, adopts, or enforces any noise control
- 20 rule or regulation.

21 (b) The member who is appointed by the Secretary of the Environment is chairman of the

22 Committee.

23
24 **§ 3-303.**

25 (a) The Committee shall meet IN CONJUNCTION WITH THE NOISE ADVISORY COUNCIL

26 ~~at least twice a year, at the times and places that it determines.~~

27 (b) A member of the Committee:

- 28 (1) May not receive compensation; but
- 29 (2) Is entitled to reimbursement for expenses under the Standard State Travel Regulations, as
- 30 provided in the State budget.

31 (c) (1) In accordance with the State budget, the Committee may:

- 32 (i) Employ a staff;
- 33 (ii) Employ consultants; and
- 34 (iii) Obtain office facilities.
- 35 (2) The Department of the Environment shall provide the Committee with secretarial and
- 36 stenographic assistance.

37
38 **§ 3-304.**

39 (a) The Committee shall:

- 40 (1) Receive reports of progress, problems, and proposed plans for attaining and maintaining State
- 41 environmental noise standards from each agency that is represented on the Committee;
- 42 (2) Evaluate the adequacy of existing and proposed efforts to attain and maintain State
- 43 environmental noise standards;
- 44 (3) Review the relationship of State noise control rules and regulations with other environmental
- 45 laws, rules, regulations, standards, and programs; and

- 1 (4) Recommend new or revised noise control rules, regulations, or legislation.
- 2 (b) If the Council requests, the annual report of the Committee shall include a report of the
- 3 Council.

4
5 **§ 3-401.**

6 (a) Except as otherwise provided by law, the Department shall adopt environmental noise
7 standards, sound level limits, and noise control rules and regulations as necessary to protect the
8 public health, the general welfare, and property.

9 (b) In adopting environmental noise standards, the Department shall consider:

10 (1) Information published by the Administrator of the United States Environmental Protection
11 Agency on the levels of environmental noise that must be attained and maintained in defined
12 areas under various conditions to protect public health and welfare with an adequate margin of
13 safety; and

14 (2) Scientific information about the volume, frequency, duration, and other characteristics of
15 noise that may harm public health, safety, or general welfare, including:

- 16 (i) Temporary or permanent hearing loss;
- 17 (ii) Interference with sleep, speech communication, work, or other human activities;
- 18 (iii) Adverse physiological responses;
- 19 (iv) Psychological distress;
- 20 (v) Harm to animal life;
- 21 (vi) Devaluation of or damage to property; and
- 22 (vii) Unreasonable interference with the enjoyment of life or property.

23 (c) (1) In adopting sound level limits and noise control rules and regulations, the Department
24 shall consider, among other things:

- 25 (i) The residential, commercial, or industrial nature of the area affected;
- 26 (ii) Zoning;
- 27 (iii) The nature and source of various kinds of noise;
- 28 (iv) The degree of noise reduction that may be attained and maintained using the best available
29 technology;
- 30 (v) Accepted scientific and professional methods for measurement of sound levels; and
- 31 (vi) The cost of compliance with the sound level limits.

32 (2) The sound level limits adopted under this subsection shall be consistent with the
33 environmental noise standards adopted by the Department.

34 (3) The sound level limits and noise control rules and regulations adopted under this subsection
35 may not prohibit trapshooting or other target shooting on any range or other property in
36 Frederick County that the Frederick County Department of Planning and Zoning has approved as
37 a place for those sporting events.

38 ~~(4) The sound level limits and noise control rules and regulations adopted under this subsection~~
39 ~~shall be as follows for residential heat pumps and air conditioning units:~~

- 40 ~~(i) Residential heat pumps 75dba.~~
- 41 ~~(ii) Residential air conditioning units 70dba.~~

42 REPEAL AND RESERVE

43
44 (5) (i) The sound level limits and noise control rules and regulations adopted under this
45 subsection may not prohibit trapshooting, skeetshooting, or other target shooting between the

109

1 hours of 9 a.m. and 10 p.m. on any range or other property of a shooting sports club that is
2 chartered and in operation as of JANUARY 1, 2001. ~~July 1, 1983. However, this prohibition~~
3 ~~does not apply if the sports shooting club moves to a parcel of land that is not contiguous to the~~
4 ~~location of the club on July 1, 1983.~~

5 (THE ABOVE CHANGE WAS ENACTED UNDER SB 869/ HB 1423 IN 2001)

6
7 (ii) This paragraph does not apply in Allegany, Anne Arundel, Baltimore City, Calvert, Charles,
8 Garrett, Howard, Montgomery, St. Mary's, and Washington counties.

9 (d) (1) This section does not authorize the Department to adopt environmental noise standards,
10 sound level limits, or noise control rules and regulations that apply to noise from:

11 (i) Construction or repair work on public property; or

12 (ii) Fire or rescue station alerting devices.

13 (2) Noise control rules and regulations that apply to Department of Transportation facilities shall
14 be adopted jointly by the Department of Transportation and the Department of the Environment.

15
16 **§ 3-402.**

17 (a) The Department may not adopt any environmental noise standard, sound level limit, or noise
18 control rule or regulation unless the requirements of this section and the Administrative
19 Procedure Act are met.

20 (b) Before adopting any proposed environmental noise standard, sound level limit, or noise
21 control rule or regulation, the Department shall announce and hold a public hearing on the
22 subject.

23 (c) (1) At least 60 days before the public hearing, the Department shall publish notice of the
24 hearing in a newspaper of general circulation within the area concerned.

25 (2) The notice shall state:

26 (i) The date, time, and place of the hearing; and

27 (ii) The purpose of the hearing.

28 (d) At least 60 days before the public hearing, the Department shall make the proposed
29 environmental noise standard, sound level limit, or noise control rule or regulation available to
30 the public.

31 (e) After the public hearing, the Department may adopt the proposed environmental noise
32 standard, sound level limit, or noise control rule or regulation, with or without modification.

33
34 **§ 3-403.**

35 (a) The Department shall enforce the sound level limits and noise control rules and regulations
36 adopted under this title.

37 (b) To the maximum extent possible, the Department shall use the facilities and services of
38 appropriate agencies of political subdivisions in its enforcement under this section.

39 (c) The Department may assist the noise control efforts of any appropriate agency of any
40 political subdivision by giving that agency technical assistance in the form of personnel or
41 equipment.

42 (d) Each sound level limit shall be applied at the boundary of:

43 (1) A property; or

44 (2) A land use category, as determined by the Department.

1 **§ 3-404.**

2 If the Department determines that there is a violation of this title or any sound level limit or noise
3 control rule or regulation adopted under this title, the Department, after notice to the alleged
4 violator, may issue a corrective order.
5

6 **§ 3-405.**

7 (a) The Department may bring an action to enjoin any conduct that is a willful violation of any
8 provision of this title or any rule, regulation, or order adopted or issued under this title.

9 (b) An action may not be brought under this section unless the person against whom it is brought
10 has been given a reasonable time to comply with the provision that is the basis of the action.
11

12 **§ 3-406.**

13 (a) A person who willfully violates any provision of this title or any rule, regulation, or order
14 adopted or issued under this title is liable to a civil penalty not exceeding \$10,000, to be
15 collected in a civil action brought by the Department in the circuit court for any county. Each day
16 a violation continues is a separate violation under this section.

17 (b) If the Attorney General concurs, the Secretary may compromise and settle any claim for a
18 civil penalty under this section.

19 (c) If, within 1 year after a civil penalty is compromised and settled under subsection (b) of this
20 section, the person against whom the penalty is imposed satisfies the Secretary that the violation
21 has been eliminated or the order has been satisfied, the Secretary, with the concurrence of the
22 Attorney General, may return to the person not more than 75 percent of the penalty paid.

23 (d) An action under this section is in addition to and not instead of an action for injunctive relief
24 under § 3-405 of this subtitle.
25

26 **§ 3-407.**

27 (a) A person is not subject to action for a violation of a provision of this title or any rule or
28 regulation adopted under this title so long as the person acts in accordance with a plan for
29 compliance that:

- 30 (1) The person has submitted to the Secretary; and
- 31 (2) The Secretary has approved, with or without amendments.

32 (b) The Secretary shall act on any plan for compliance within 90 days after the plan is submitted
33 to the Secretary.
34

35 **§ 3-408.**

36 A condition that is caused by an act of God, a strike, a riot, a catastrophe, or a cause over which
37 an alleged violator has no control is not a violation of this title or any rule or regulation adopted
38 under this title.
39

- 1 (b) Lawn care and snow removal equipment (daytime only) when used and
2 maintained in accordance with the manufacturer's specifications. 111
3 (c) SOUND FROM MOBILE Agricultural field machinery when used and
4 maintained in accordance with manufacturer's specifications.
5 (d) Blasting operations for demolition, construction, and mining or quarrying
6 (daytime only).
7 (e) Motor vehicles on public roads.
8 (f) Aircraft and related airport operations at airports licensed by the State Aviation
9 Administration.
10 (g) Boats on State waters or motor vehicles on State lands under the jurisdiction
11 of the Department of Natural Resources.
12 (h) Emergency operations.
13 (i) Pile driving equipment during the daytime hours of 8 a.m. to 5 p.m.
14 (j) ~~Sound not electronically amplified created by sporting, amusement, and~~
15 ~~entertainment events and other public gatherings operating according to terms and~~
16 ~~conditions of the appropriate local jurisdictional body. This includes but is not~~
17 ~~limited to athletic contests, amusement parks, carnivals, fairgrounds, sanctioned~~
18 ~~auto racing facilities, parades, and public celebrations. This exemption only~~
19 ~~applies between the hours of 7 a.m. and 12 midnight.~~
20 SOUND, EXCEPT THOSE SOUNDS THAT ARE ELECTRONICALLY
21 AMPLIFIED, CREATED BY SPORTING EVENTS, (EXCEPT **MOTOR**
22 **RACING FACILITIES** AND TRAP SHOOTING, SKEET SHOOTING, OR
23 OTHE TARGET SHOOTING), ENTERTAINMENT EVENTS AND OTHER
24 PUBLIC GATHERINGS OPERATING ACCORDING TO THE TERMS AND
25 CONDITIONS OF THE APPROPRIATE LOCAL JURISDICTION. THIS
26 EXEMPTION ONLY APPLIES BETWEEN THE HOURS OF 7 AM AND
27 MIDNIGHT.
28 (k) Rapid rail transit vehicles and railroads.
29 (l) Construction and repair work on public property.
30 (m) REPEAL AND RESERVE
31 ~~Air conditioning or heat pump equipment used to cool or heat housing on~~
32 ~~residential property. For this equipment, a person may not cause or permit noise~~
33 ~~levels which exceed 70 dBA for air conditioning equipment at receiving~~
34 ~~residential property and 75 dBA for heat pump equipment at receiving residential~~
35 ~~property.~~
36 (N) HOUSEHOLD PETS AND ANIMAL SOUNDS EXCEPT WHEN IN
37 CONNECTION WITH BOARDING OR BREEDING KENNELS, ANIMAL
38 HOSPITALS, AND SHELTERS.
39 (O) TRAP SHOOTING, SKEET SHOOTING, OR OTHER TARGET
40 SHOOTING BETWEEN THE HOURS OF 9 AM AND 10 PM ON ANY
41 RANGE OR OTHER PROPERTY OF A SHOOTING SPORTS CLUB THAT IS
42 CHARTEED AND IN OPERATION AS OF JANUARY 1, 2001. THIS
43 EXEMPTION DOES NOT APPLY IN ALLEGANY, ANNE ARUNDEL,
44 BALTIMORE CITY, CALVERT, CHARLES, GARRETT, HOWARD,
45 MONTGOMERY, ST. MARY'S AND WASHINGTON COUNTIES.

(P) MOTOR RACING FACILITIES THAT EMPLOY BEST AVAILABLE NOISE CONTROL TECHNOLOGY INCLUDING MUFFLERS ON ALL VEHICLES AND THOSE MOTOR RACING FACILITIES THAT OPERATE WITHIN HOURS OF OPERATION ESTABLISHED PRIOR TO (___ SOME DATE ___). ANY MOTOR RACING FACILITY THAT DOES NOT EMPLOY BEST AVAILABLE NOISE CONTROL TECHNOLOGY, OR EXPANDS ITS HOUR OF OPERATION BEYOND THOSE OF RECORD ON (___ SOME DATE ___), SHALL BE SUBJECT TO ALL APPLICABLE REGULATIONS OF THIS CHAPTER.

(NOTE: SOME DEFINITIONS MAY BE REQUIRED FOR BEST AVAILABLE TECHNOLOGY AND MUFFLERS)

D C. Variance Procedure.

- (1) Any person who believes that meeting the requirements of § A, above, is not practical in a particular case may request an exception to its requirements.
- (2) Requests submitted to the Department shall be in writing and shall include evidence to show that compliance is not practical.
- (3) Upon receipt of a request for an exception, the Department shall schedule a hearing to be held within 60 days.
- (4) The applicant for the exception AT THE APPLICANT'S EXPENSE, at least 30 days before the hearing date, shall advertise prominently the hearing by placing a notice in a newspaper of general circulation in the subdivision in which the facility or source for which the exception is sought is located. The notice shall include the name of the facility or source and such additional information as the Department may require.
- (5) Based upon evidence presented at the hearing, the Secretary may grant an exception to § A, above, for a period not to exceed 5 years under terms and conditions appropriate to reduce the impact of the exception.
- (6) Exceptions shall be renewable upon receipt by the Department of evidence that conditions under which the exception was originally granted have not changed significantly.
- (7) ALL COSTS ASSOCIATED WITH THE VARIANCE PROCEDURE, TO INCLUDE STENOGRAPHIC SERVICES, HEARING FACILITY RENTAL, DUPLICATION COSTS, MAILING COSTS, AND STAFF TIME FOR THE ACTUAL PUBLIC HEARING SHALL BE REIMBURSED BY THE APPLICANT TO THE STATE UPON REQUEST.

D. Measurement.

- (1) The equipment and techniques employed in the measurement of noise levels may be those recommended by the Department, which may, but need not, refer to currently accepted standards or recognized organizations, including, but not limited to, the American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM), Society of Automotive Engineers (SAE), and the United States Environmental Protection Agency (EPA).

(2) The measurement of noise levels shall be conducted at points on or within the property line of the receiving property or the boundary of a zoning district, and may be conducted at any point for the determination of identity in multiple source situations.

(3) Sound level meters used to determine compliance with Regulation .03 shall meet or exceed the specifications of the American National Standards Institute or its successor bodies ANSI S1.4-1971 for Type II sound level meters.

26.02.03.05

.05 Penalties.

A. Civil Penalty. Any person who willfully violates these regulations shall be liable to a civil penalty of not more than \$10,000. Each day during which a violation continues there shall be liability for a separate penalty.

B. Plan for Compliance. A violator who has submitted a plan for compliance with these regulations and has that plan or amendments to it approved by the Secretary, upon recommendation of the Department, may not be considered to be in violation of these regulations as long as he acts in accordance with the original or amended plan.

26.02.03.9999

Administrative History

Effective date: August 6, 1975 (2:17 Md. R. 1189) Regulation .01A-1, W-1 adopted effective February 15, 1982 (9:3 Md. R. 222); repealed effective March 28, 1983 (10:6 Md. R. 558) Regulations .01 and .03A, B, D amended effective September 14, 1977 (4:19 Md. R. 1468) Regulation .01C amended effective March 28, 1983 (10:6 Md. R. 558) Regulations .01C, Q; .02B; .03B, D amended effective February 15, 1982 (9:3 Md. R. 222) Regulation .03A amended as an emergency provision effective November 13, 1979 (6:24 Md. R. 1917); emergency status expired March 29, 1980 Regulation .03A and B amended effective March 28, 1983 (10:6 Md. R. 558) Regulation .04 repealed effective September 14, 1977 (4:19 Md. R. 1468) ----- Chapter recodified from COMAR 10.20.01 to COMAR 26.02.03

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26.02.03.00

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 02 OCCUPATIONAL, INDUSTRIAL, AND RESIDENTIAL HAZARDS

Chapter 03 Control of Noise Pollution

Authority: Environment Article, § 3-401, Annotated Code of Maryland

Preface

The Environmental Noise Act of 1974 of the State of Maryland declares as policy the limitation of noise to that level which will protect the health, general welfare, and property of the people of the State. It requires that the Department assume responsibility for the jurisdiction over the level of noise, and prepare regulations for the control of noise, including the establishment of standards for ambient noise levels and equipment performance with respect to noise, for adoption by the Secretary of the Environment. Enforcement of the regulations and standards is the responsibility of the Department in all areas, using the facilities and services of local agencies within the areas to the greatest extent possible. The Department shall coordinate the programs of all State agencies relating to noise abatement, and each State agency prescribing sound level limits or regulations respecting noise shall obtain the endorsement of the Department in prescribing any limits or regulations.

26.02.03.01

.01 Definitions.

- A. "ANSI" means American National Standards Institute or its successor bodies.
- B. "Construction" means any site preparation, assembly, erection, repair, alteration, or similar activity.
- C. "Day-night average sound level (Ldn)" means in decibels, the energy average sound level for a 24-hour day with a 10 decibel penalty applied to noise occurring during the nighttime period; i.e., noise levels occurring during the period from 10 p.m. one day until 7 a.m. the next are treated as though they were 10 dBA higher than they actually are. The use of the A-weighting is understood. The mathematical expression for Ldn is as follows:

$$L_{dn} = 10 \log_{10} \left[\frac{15(10)^{(L_d/10)} + 9(10)^{(L_n+10/10)}}{24} \right]$$

where L_d = the daytime average sound level, and
where L_n = the nighttime average sound level

1 D. "dBA" means abbreviation for the sound level in decibels determined by the A-
2 weighting network of a sound level meter or by calculation from octave band or one-third
3 octave band data.

4 E. "Daytime hours" means 7 a.m. to 10 p.m., local time.

5 F. "Decibel (dB)" means a unit of measure equal to ten times the logarithm to the base ten
6 of the ratio of a particular sound pressure squared to a standard reference pressure
7 squared. For the purpose of this subtitle, 20 micropascals shall be the standard reference
8 pressure.

9 G. "Demolition" means any dismantling, destruction, or removal activities.

10 H. "Department" means the Department of the Environment.

11 I. "Emergency" means any occurrence or set of circumstances involving actual or
12 imminent physical trauma or property damage, which demands immediate action.

13 J. "Environmental noise" means the noise that exists at any location from all sources.

14 K. "Environmental noise standards" means the A-WEIGHTED INTRUDING
15 INTRUDING SOUND LEVEL LIMITS FOR ~~goals for environmental noise,~~ the
16 attainment and maintenance OF AN ADEQUATE ENVIRONMENT ~~of which, in~~
17 ~~defined areas and under specific conditions, are necessary~~ to protect the public health and
18 general welfare.

19 L. "Equivalent sound level" (also "average sound level") means the level of a constant
20 sound which, in a given situation and time period, would convey the same sound energy
21 as does the actual time-varying sound during the same period. Equivalent sound level is
22 the level of the time weighted, mean-square, A-weighted sound pressure. A numerical
23 subscript may be used to indicate the time period under consideration; i.e., Leq24 or Leq8
24 for 24-hour and 8-hour periods, respectively. No subscript indicates a 24-hour period.
25 The mathematical expression for the Leq as follows:

26
$$L_{eq} = 10 \log_{10} \left[\frac{1}{\frac{t_2 - t_1}{2}} \int_{t_1}^{t_2} 10^{LA(t)/10} dt \right] \text{ dBA}$$

27 where t1 and t2 are the beginning and ending times, respectively, of the period over
28 which the average is determined, and LA (t) is the instantaneous A-weighted sound
29 pressure level fluctuating with time.

30 M. "Nighttime hours" means 10 p.m. to 7 a.m., local time.

31 N. "Noise" means the intensity, frequency, duration, and character of sound, including
32 sound and vibration of sub-audible frequencies.

33 O. "Noise pollution" means the presence of noise of sufficient loudness, character, and
34 duration, which whether from a single source or multiple sources, is, or may be predicted
35 with reasonable certainty to be, injurious to health or which unreasonably interferes with
36 the proper enjoyment of property or with any lawful business or activity.

37 P. ~~"Periodic noise" means noise possessing a repetitive on and off characteristic.~~
38 PERIODIC AND IMPULSE NOISE MEANS - NOISE POSSESSING AN ON AND
39 OFF CHARACTERISTIC WITH A RAPID RISE TO PEAK ENGERGY AND A
40 SHORT DECAY PERIOD NOT EXCEEDING TWO SECONDS.
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1 Q. "Person" means any individual, group of individuals, firm, partnership, voluntary
2 association, or private, public, or municipal corporation, or political subdivision of the
3 State, or department, bureau, agency, or instrument of federal, State, or local government,
4 responsible for the use of property.

5 R. "Prominent discrete tone" means any sound which can be distinctly heard as a single
6 pitch or a set of single pitches. For the purposes of this regulation, a prominent discrete
7 tone shall exist if the one-third octave band sound pressure level in the band with the tone
8 exceeds the arithmetic average of the sound pressure levels of the 2 contiguous one-third
9 octave bands by 5 dB for center frequencies of 500 Hz and above and by 8 dB for center
10 frequencies between 160 and 400 Hz and by 15 dB for center frequencies less than or
11 equal to 125 Hz.

12 S. "Sound level" means, in decibels, the weighted sound pressure level measured by the
13 use of a sound level meter satisfying the requirements of ANSI S1.4 1971 "Specifications
14 for Sound Level Meters". Sound level and noise level are synonymous. The weighting
15 employed shall always be specified.

16 T. "Sound level meter" means an instrument, meeting ANSI S1.4 1971 "Specifications
17 for Sound Level Meters", comprising a microphone, an amplifier, an output meter, and
18 frequency-weighting network(s) that is used for the measurement of sound pressure
19 levels in a specified manner.

20 U. Sound Pressure.

21 (1) "Sound pressure" means the minute fluctuations in atmospheric pressure
22 which accompany the passage of a sound wave.

23 (2) For a steady sound, the value of the sound pressure average over a period of
24 time.

25 (3) Sound pressure is usually measured in dynes per square centimeter (dyne/cm
26 squared), or in newtons per square meter (N/m squared), or in micropascals.

27 V. "Sound pressure level" means, in decibels, 20 times the logarithm to the base ten of
28 the ratio of a sound pressure to the reference sound pressure of 20 micropascals (20
29 micronewtons per square meter). In the absence of any modifier, the level is understood
30 to be that of a root-mean-square pressure.

31 W. "Source" means any person or property, real or personal, contributing to noise
32 pollution.

33 X. "Vibration" means any oscillatory motion of solid bodies.

34 Y. "Zoning district" means a general land use category, defined according to local
35 subdivision, the activities and uses for which are generally uniform throughout the
36 subdivision. For the purposes of this regulation, property which is not zoned
37 "residential", "commercial", or "industrial", shall be classified according to use as
38 follows:

39 (1) "Commercial" means property used for buying and selling goods and services;

40 (2) "Industrial" means property used for manufacturing and storing goods;

41 (3) "Residential" means property used for dwellings.

42 Z. MOBILE AGRICULTURAL FIELD EQUIPMENT – MEANS FIELD EQUIPMENT
43 WHOSE PRIMARY FUNCTION IS ACCOMPLISHED WHILE IN MOTION, TO INCLUDE
44 BUT NOT LIMITED TO TRACTORS, TRUCKS, WAGONS, PLOWS, SPREADERS,
45 AND COMBINES.

11/1

1 AA. STATIONARY AGRICULTURAL FIELD MACHINERY – MEANS
2 EQUIPMENT THAT IS USED PRIMARILY AT A FIXED LOCATION FOR EXTENDED
3 PERIODS OF TIME. THIS EQUIPMENT WOULD INCLUDE BUT NOT BE LIMITED TO
4 PUMPS, GENERATORS, CHILLERS, AND GRAIN DRYING EQUIPMENT.

5 AB. SPORTING EVENT MEANS – A COMPETITIVE ATHLETIC/SPORTING
6 CONTEST BETWEEN TEAMS OR INDIVIDUALS, BUT DOES NOT FOR THE PURPOSES
7 OF THIS REGULATION INLCUDE TRAP SHOOTING, SKEET SHOORIGN, OR OTHER
8 TARGET SHOOTING.

9 26.02.03.02

10 **.02 Environmental Noise GOALS ~~Standards~~.**

11 A. Precepts.

12 (1) It is known that noise above certain levels is harmful to the health of humans.
13 Although precise levels at which all adverse health effects occur have not been
14 DEFINITELY ascertained, it is known that one's well-being can be affected by
15 noise through loss of sleep, speech interference, hearing impairment, and a variety of
16 other psychological and physiological factors. The establishment of ambient noise
17 standards, ~~or goals~~, must provide margins of safety in reaching conclusions based on
18 available data which relate noise exposure to health and welfare effects, with due
19 consideration to technical and economic factors.

20
21 (2) The environmental noise standards set forth IN THESE REGULATIONS ~~here~~
22 ~~represent goals expressed in terms of equivalent A-weighted sound levels~~ ARE
23 INTENDED TO ACHIEVE THE GOALS, which are protective of the public health
24 and welfare. The ambient noise levels shall be achieved through application, under
25 provisions of laws or regulations or otherwise, THE ~~of~~ means for reducing noise
26 levels including, but not limited to, isolation of noise producing equipment,
27 dampening of sound waves by insulation, equipment modification and redesign, and
28 land use management.

29
30 B. GOALS ~~Standards~~ for Environmental Noise-----General.

31 (1) The ~~standards are~~ goals for the attainment of an adequate environment ARE
32 INTENDED TO BE ACHIEVED THROUGH THE ~~The~~ standards set out in Regulation
33 .03 ~~are intended to achieve these goals~~.

34 (2) ~~The following sound levels represent the standards for the State by general zoning~~
35 ~~district:~~

36
37 Table 1
38 Environmental Noise Standards

<i>Zoning District</i>	<i>Level</i>	<i>Measure</i>
Industrial	70 dBA	L (24) eq
Commercial	64 dBA	L dn
Residential	55 dBA	L dn

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1 **.03 General Regulations AND STANDARDS.**

2 A. Noise and Vibration Prohibitions.

3 (1) A person may not cause or permit noise levels which exceed those specified in Table
4 2 AND 3 except as provided in § A B(4 2) or (5 3), or § B C, below.

6 B. Standards for Environmental Noise-----General.

7 ~~(3) The standards are goals for the attainment of an adequate environment.~~

9 (1) The following sound levels IN TABLE 1 represent the standards for the State by
10 general zoning district:

12 Table 1a
13 NOISE PRODUCING EQUIPMENT ~~Environmental~~ Noise Standards

15 Zoning District	Level	Measure
16 Industrial	70 dBA	L (24) eq
17 Commercial	64 dBA	L dn
18 Residential	55 dBA	L dn

20 (2) TABLE 1a SHALL BE APPLICABLE TO ALL NEW EQUIPMENT AND ANY
21 SUBSTANTIAL REPLACEMENTS INSTALLED AFTER JANUARY 1, 2002.
22 TABLE 2b STANDARDS SHALL BE APPLICABLE FOR THE REMAINING
23 LIFE OF EXISTING EQUIPMENT FOR UP TO 10 YEARS. EFFECTIVE
24 JANUARY 1, 2012 SOUND MITIGATION MEASURES SHALL BE
25 INSTITUTED TO ABATE NOISE LEVELS TO THOSE ALLOWED IN TABLE 1a
26 UNLESS A VARIANCE IS APPROVED.

28 Table 1b
29 NOISE PRODUCING EQUIPMENT ~~Environmental~~ Noise Standards

31 Zoning District	Level	Measure
32 Industrial	70 dBA	L (24) eq
33 Commercial	70 dBA	L dn
34 Residential	61.4 dBA	L dn

37 (3 2) THE SOUND LEVELS IN TABLE 2 REPRESENT THE STANDARDS FOR
38 THE STATE BY RECEIVING LAND USE:

40 **Table 2 Maximum Allowable Noise Levels (dBA)**
41 **for Receiving Land Use Categories**
42 **(MEASURED AS FAST L_{MAX})**

43 Effective Date	Day/Night	Industrial	Commercial	Residential
44 Upon Adoption	Day	75	67	65
45	Night	75	62	55

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(4 2) A person may not cause or permit noise levels emanating from construction or demolition site activities which exceed:

- (a) 90 dBA during daytime hours;
- (b) The levels specified in Table 2 during nighttime hours.

(5 3) A person may not cause or permit the emission of prominent discrete tones and periodic noises which exceed a level which is 5 dBA lower than the applicable level listed in Table 2.

(6 4) (a) A person may not cause or permit, beyond the property line of a source, GROUND TRANSMITTED vibration of sufficient intensity to cause another person to be aware of the vibration by such direct means as sensation of touch or visual observation of moving objects. The observer shall be located at or within the property line of the receiving property when vibration determinations are made.

(b) AIR TRANSMITTED SOUND THAT INDUCES VIBRATIONS SHALL HAVE MAXIMUM LINEAR DECIBEL LEVELS IN THE LOWER THREE OCTAVE BANDS AS EXPRESSED IN TABLE 3.

TABLE 3

(note: the intention is to select a single option from those below, or a compromise set of levels as in option E)

OPTIONS	16 HERTZ	31.5 HERTZ	63 HERTZ
A - NASA windows	59	67	74
B - NASA walls	71	77	84
C - ASHREA mod.	64	75	80
D - ASHREA - mid	74	74	79
E - suggested	63	72	77
F			
G			

(note: suggested is the average of the NASA windows and ASHREA moderate)

C B. Exemptions.

(1) The provisions of this regulation may not apply to devices used solely for the purpose of warning, protecting, or alerting the public, or some segment thereof, of the existence of an emergency situation, EXCEPT THAT EQUIPMENT AND VEHICLES EQUIPPED WITH AUDIBLE SOUND WARNING DEVICES AND ARE USED ROUTINELY AT LOCATIONS AT NIGHT WITHIN PROXIMAL LOCATIONS TO RESIDENTAL DWELLINGS SHALL BE REQUIRED TO SWITCH TO OR EMPLOY FLASHING STROBE LIGHT WARNING DISPLAYS DURING THE NIGHT AS ALLOWED BY OSHA.

(2) The provisions of this regulation do not apply to the following:

- (a) Household tools and portable appliances in normal usage DURING DAYTIME HOURS.

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- (b) Lawn care and snow removal equipment (daytime only) when used and maintained in accordance with the manufacturer's specifications.
- (c) SOUND FROM MOBILE Agricultural field machinery when used and maintained in accordance with manufacturer's specifications.
- (d) Blasting operations for demolition, construction, and mining or quarrying (daytime only).
- (e) Motor vehicles on public roads.
- (f) Aircraft and related airport operations at airports licensed by the State Aviation Administration.
- (g) Boats on State waters or motor vehicles on State lands under the jurisdiction of the Department of Natural Resources.
- (h) Emergency operations.
- (i) Pile driving equipment during the daytime hours of 8 a.m. to 5 p.m.
- (j) ~~Sound not electronically amplified created by sporting, amusement, and entertainment events and other public gatherings operating according to terms and conditions of the appropriate local jurisdictional body. This includes but is not limited to athletic contests, amusement parks, carnivals, fairgrounds, sanctioned auto racing facilities, parades, and public celebrations. This exemption only applies between the hours of 7 a.m. and 12 midnight.~~
- SOUND, EXCEPT THOSE SOUNDS THAT ARE ELECTRONICALLY AMPLIFIED, CREATED BY SPORTING EVENTS, (EXCEPT TRAP SHOOTING, SKEET SHOOTING, OR OTHE TARGET SHOOTING), ENTERTAINMENT EVENTS AND OTHER PUBLIC GATHERINGS OPERATING ACCORDING TO THE TERMS AND CONDITIONS OF THE APPROPRIATE LOCAL JURISDICTION. THIS EXEMPTION ONLY APPLIES BETWEEN THE HOURS OF 7 AM AND MIDNIGHT.
- (k) Rapid rail transit vehicles and railroads.
- (l) Construction and repair work on public property.
- (m) REPEAL AND RESERVE
~~Air conditioning or heat pump equipment used to cool or heat housing on residential property. For this equipment, a person may not cause or permit noise levels which exceed 70 dBA for air conditioning equipment at receiving residential property and 75 dBA for heat pump equipment at receiving residential property.~~
- (N) HOUSEHOLD PETS AND ANIMAL SOUNDS EXCEPT WHEN IN CONNECTION WITH BOARDING OR BREEDING KENNELS, ANIMAL HOSPITALS, AND SHELTERS.
- (O) TRAP SHOOTING, SKEET SHOOTING, OR OTHER TARGET SHOOTING BETWEEN THE HOURS OF 9 AM AND 10 PM ON ANY RANGE OR OTHER PROPERTY OF A SHOOTING SPORTS CLUB THAT IS CHARTED AND IN OPERATION AS OF JANUARY 1, 2001. THIS EXEMPTION DOES NOT APPLY IN ALLEGANY, ANNE ARUNDEL, BALTIMORE CITY, CALVERT, CHARLES, GARRETT, HOWARD, MONTGOMERY, ST. MARY'S AND WASHINGTON COUNTIES.

D C. Variance Procedure.

- 1 (1) Any person who believes that meeting the requirements of § A, above, is not practical
- 2 in a particular case may request an exception to its requirements.
- 3 (2) Requests submitted to the Department shall be in writing and shall include evidence
- 4 to show that compliance is not practical.
- 5 (3) Upon receipt of a request for an exception, the Department shall schedule a hearing to
- 6 be held within 60 days.
- 7 (4) The applicant for the exception AT THE APPLICANT'S EXPENSE, at least 30 days
- 8 before the hearing date, shall advertise prominently the hearing by placing a notice in a
- 9 newspaper of general circulation in the subdivision in which the facility or source for
- 10 which the exception is sought is located. The notice shall include the name of the facility
- 11 or source and such additional information as the Department may require.
- 12 (5) Based upon evidence presented at the hearing, the Secretary may grant an exception
- 13 to § A, above, for a period not to exceed 5 years under terms and conditions appropriate
- 14 to reduce the impact of the exception.
- 15 (6) Exceptions shall be renewable upon receipt by the Department of evidence that
- 16 conditions under which the exception was originally granted have not changed
- 17 significantly.
- 18 (7) ALL COSTS ASSOCIATED WITH THE VARIANCE PROCEDURE, TO
- 19 INCLUDE STENOGRAPHIC SERVICES, HEARING FACILITY RENTAL,
- 20 DUPLICATION COSTS, MAILING COSTS, AND STAFF TIME FOR THE ACTUAL
- 21 PUBLIC HEARING SHALL BE REIMBURSED BY THE APPLICANT TO THE
- 22 STATE UPON REQUEST.
- 23

24 D. Measurement.

- 25 (1) The equipment and techniques employed in the measurement of noise levels may be
- 26 those recommended by the Department, which may, but need not, refer to currently
- 27 accepted standards or recognized organizations, including, but not limited to, the
- 28 American National Standards Institute (ANSI), American Society for Testing and
- 29 Materials (ASTM), Society of Automotive Engineers (SAE), and the United States
- 30 Environmental Protection Agency (EPA).
- 31 (2) The measurement of noise levels shall be conducted at points on or within the
- 32 property line of the receiving property or the boundary of a zoning district, and may be
- 33 conducted at any point for the determination of identity in multiple source situations.
- 34 (3) Sound level meters used to determine compliance with Regulation .03 shall meet or
- 35 exceed the specifications of the American National Standards Institute or its successor
- 36 bodies ANSI S1.4-1971 for Type II sound level meters.
- 37

38 26.02.03.05

39 **.05 Penalties.**

- 40 A. Civil Penalty. Any person who willfully violates these regulations shall be liable to a
- 41 civil penalty of not more than \$10,000. Each day during which a violation continues there
- 42 shall be liability for a separate penalty.
- 43 B. Plan for Compliance. A violator who has submitted a plan for compliance with these
- 44 regulations and has that plan or amendments to it approved by the Secretary, upon
- 45 recommendation of the Department, may not be considered to be in violation of these
- 46 regulations as long as he acts in accordance with the original or amended plan.

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26.02.03.9999

Administrative History

Effective date: August 6, 1975 (2:17 Md. R. 1189) Regulation .01A-1, W-1 adopted effective February 15, 1982 (9:3 Md. R. 222); repealed effective March 28, 1983 (10:6 Md. R. 558) Regulations .01 and .03A, B, D amended effective September 14, 1977 (4:19 Md. R. 1468) Regulation .01C amended effective March 28, 1983 (10:6 Md. R. 558) Regulations .01C, Q; .02B; .03B, D amended effective February 15, 1982 (9:3 Md. R. 222) Regulation .03A amended as an emergency provision effective November 13, 1979 (6:24 Md. R. 1917); emergency status expired March 29, 1980 Regulation .03A and B amended effective March 28, 1983 (10:6 Md. R. 558) Regulation .04 repealed effective September 14, 1977 (4:19 Md. R. 1468) ----- Chapter recodified from COMAR 10.20.01 to COMAR 26.02.03

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DRAFT
MEETING AGENDA

ENVIRONMENTAL NOISE ADVISORY COUNCIL
AND THE INTERAGENCY NOISE CONTROL COMMITTEE

June 4, 2001
9:30 AM to 12:00 PM
Chesapeake Room (second floor)

- 9:30 Welcome and Introductions
- 9:35 Announce public input process
 - five minutes for any public observer - starting at 11:30 AM
 - longer presentations for invited speakers
- 9:40 Review of the minutes from May 7th meeting
- 9:45 Legislative Update George Harman
 - SB 869/HB 1423
 - SB 376
 - Budget bill – program evaluation – report due May
- 10:00 New Business Sanctioned Auto Racing Facilities (Issue Number 4)
 -George Harman/Dave Jarinko
 - History
 - Statute
 - Regulations
 - Recent complaints (Cumberland Fair Grounds, Cecil Co Dragway, others)
 - Proposal(s)
- 10:30 Break
- 10:45 Old Business
 - Continuous Noise (Issue Number 1)
 - Vibrations (Issue Number 2)
 - Gun Clubs (Issue Number 3)
- 11:15 Discussion of future meeting agendas
- 11:25 Schedule of future issues
- 11:30 Public input (five minutes each)
- 12:00 Adjourn

**Environmental Noise Advisory Council
And
Interagency Noise Advisory Committee
Meeting Minutes
April 2, 2001, 9:30 a.m.
Chesapeake Conference Room, MDE**

Members:

Council:

Senator John Astle	ex officio	absent
Delegate Jake Mohorovic	ex officio	absent
Dr. Stephen Epstein	MedChi	absent
Dr. Ilene Busch-Vishniac	Acoustical Society	absent
Dr. Fred Schmitz	U of MD	present
Michael Powell	Public (business)	present
Nancy Benner	Public	present

Committee:

Robin Grove, Chair	MDE	present	
Jesse Heier	Governor's Office	absent	
Bill Grabau	MOSH	present	
Ken Polcak	MDOT	present	
Fred Sherbert	DNR	present	
Vacant	DHMH	absent	Dave Roberts attended

Guests:

- Barbara Pantano
- Joe Pantano
- Sandy Weymouth
- Fletcher
- Button
- Ms. Martinec
- Dan Tuten
- Russ Mirabile
- Dan Schultz

MDE Staff:

- George Harman
- Bill Parrish
- Dave Jarinko
- Carolyn Kuciara

The second official meeting of the Environmental Noise Advisory Council and Interagency Noise Committee was convened at 9:30 AM on April 2, 2001 at the Department of the Environment.

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Agenda:

See the attached agenda for this meeting.

Meeting Minutes

Mr. Robin Grove opened the meeting with introductions of the Council and Committee members, guests, and MDE staff. Mr. Grove explained that the guests would be provided with time to provide input at about 11:30 AM.

Minutes of March 5 meeting:

Draft minutes from this previous meeting were reviewed. There being no comments from the Council and the Committee, the minutes for this meeting were approved.

Legislative Update

Mr. George Harman explained the status of bills being considered by the Legislature relative to noise issues. There are 2 bills that were submitted late in the Session that went to the Rules Committee and were rushed through. Senators Jimeno and Miller sponsored SB869 and Delegate Casper Taylor sponsored HB1423 concerning gun clubs. George Harman explained the intent of the bills. The bills would exempt gun clubs for 15 counties from regulation. An amendment was submitted to change the grand-fathering date in selected counties. This amendment would exempt certain gun clubs from regulation. Senator Stone introduced SB376 that requires the department to have three noise inspectors. This was later changed from 3 to 2. Authority to issue civil citations for noise standards violators was included but this may be removed. Representatives of the Rosedale and Chesaco communities gave testimony on this bill. Mr. Harman will provide a synopsis of the bills to be distributed at the next meeting. He also mentioned that information on the bills is available on the Internet on Maryland Electronic Capital--Legislature--bills--#s--sponsors.

Options for Continuous Noise Control (Issue #1) Mr. Harman introduced the Department's proposed statutory revisions concerning noise goals vs. standards. Table 2 and 2 were not identical said Mr. Michael Powell. Eliminate table 1 and move information into Table 2. Continuous noise operating at 55-dBA day/night average comes out to 48.6 dBA by adopting Table 1A. This is applicable to new equipment. Table 2b refers to equipment already on board applicable for ten years to January 1, 2012 unless a variance is approved. Dr. Fred Schmitz said that two identical sound sources at 55 dBA would noise levels of 58 dBA. Regarding beltway noise, he said we can not change zoning laws and rezone. Dr. Schmitz said if more industry comes into an area, all existing industry must reduce noise output levels in order to maintain the 55 dBA noise level. Mr. Powell suggested that language be included in the variance section to deal with unusual circumstances on a case-by-case basis. Mr. Grove said noise regulations end up being zoning restrictions generated by a planning issue. Mr. Powell cited airport regulations. Mr. Harman said any two sources can impact general public. Mr. Dave Jarinko said Ldn day/night level is calculated by sound pressure level. Equipment that runs 24/7 raises the noise floor. Mr. Harman said CNEL day/night averaging restriction 7 pm-10 PM adding three tenths of a decibel. Robin said 7 am-10 PM noise allowable. Mr. Harman said a new industry has the option of shutting down earlier. Mr. Grove said the Council's final recommendations would go to the Department for approval (formal process) including public input before adoption. Mr. Harman suggested that Mr. Tom Ogle of Montgomery County, who has experience on this issue,

could not make this meeting but should be here at the next meeting. Dr. Schmitz asked if we should take some action on the "multiple source" issue. Mr. Powell asked if Mr. Harman would email the regulations to him so he can propose some changes to address the continuous issue.

Vibrations (issue#2)

Mr. Jarinko said that there is a need to incorporate low frequency sound measurements into rules for vibrations. He said the human ear does not hear very well -- from 16 Hertz to 20,000 Hertz. Limitations of low frequency sound, i.e. APG munitions gun shots. Consider low frequency NASA study was done with periodic rather than impulsive sound. Mr. Powell asked whether the NASA study guidelines had been adopted as a scientific consensus. Dr. Schmitz said that's where the controversy comes in. Mr. Jarinko said vibration complaints could allow for a linear component. Mr. Grove noted that while something may not be "loud" in volume, it can still be annoying. Within our noise regulations, there is a provision that deals with vibrations. Mr. Harman and Dr. Schmitz agreed that an accelerometer (in-ground) is needed to set standards for noise/vibrations. Dr. Schmitz pointed-out that vibration is a function of the materials and construction of a structure. Mr. Powell asked if any states regulate vibrations, i.e., California? Mr. Harman replied that MDE was not aware of any at this time. Mrs. Benner read from the regulation the section (COMAR 26.02.03.04) concerning vibrations. Mr. Harman said the regulation means "zero vibrations" are acceptable. Dr. Schmitz said the levels of vibration allowed are meant to be "imperceptible". Nancy Benner stated that the existing law and regulations should be enforced. Mr. Harman said the Department doesn't want to go to court if we are going to lose. Mr. Grove suggested that the courts should decide how the existing legislation should be interpreted (appellate process). Mrs. Benner mentioned the definition of "noise pollution" in COMAR 26.02.03.01. She said noise pollution is an important quality of life issue and laws are in place but are not being enforced. There is documentation banning snowmobiles because of noise impacts on animals. She speaks for her community. Mr. Grove said the current regulations have a process where the Department can require a plan of compliance. The Department holds penalties in abeyance until they come into compliance. The violator, after showing that they have done everything they can to come into compliance, can ask for a variance. The Secretary of MDE can determine if the variance should be given. If not, the Department can take the violator to court. Allowing the "victim(s)" to take legal action. Mr. Jarinko said a high temperature rotary kiln at TPS has a low frequency component of 10-15dBA. Mrs. Benner presented a video/audio of noise/vibrations in her home. She has double pane windows. This is going on 24/7. The video/audio was taken Saturday September 30th at 6 PM at her property line. Mr. Grove said this is an example of low frequency vibration.

Sandy Weymouth then spoke about the Cecil County drag raceway. It operates Friday nights, Saturday and Sunday during the day over the last year. The ownership has changed. They are now running races on Thursday nights during spring through fall and Saturday and Sunday during the day. The raceway was there originally as a youth facility. Mr. Weymouth said he questions the "grandfather clause" and the limit of what an organization can do.

Pat Butcher spoke about the Cecil County drag raceway. It has been there since 1988. They were told it was to be closed when they purchased their nearby home. The noise goes on 24/7. Their property is located 200 yards at the end of the dragway.

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Mr. Schultz spoke about the Cecil County drag raceway. They have triple pane Andersen windows, which rattle, and it's like living in East Beirut with aircraft and anti-aircraft guns going off. Oxford, PA residents comment to him about the noise. The cars do not use mufflers. Pennsylvania has ordinances that make the cars have mufflers. Smoking tires will come up at the EPA meeting. It's all about "location-location-location". On June 4th MDE will be inundated with Cecil County drag raceway people. The raceway is near Interstate 95 with easy on/off exits. He moved into his home in 1993. He knew it was there and even worked there as a kid building cars. He now works for Boeing. Aircraft are now less noisy. They need negotiations with the raceway. There's 7,000 horsepower of motors. In 1997 Johnny Comer started at 7 PM on Wednesday nights. The new owner lives in Delaware.

Barbara Pantano spoke about the Cecil County drag raceway. She represents 85 people who live near the raceway. She went to the County Commissioners. There needs to be a change to the 1977 law. They do not get 8 hours of sleep because the drag strip is still operating at midnight. They have a stone house. Some residents have brick or siding. They've been fighting this for 15 years. There are no zoning or nuisance laws. Delegates Ron Guns and Dave Rudolph have been contacted. They need MDE's help in getting the laws changed so they can have some relief. The raceway is exempt to race or practice 24/7. They've tried the courts and the raceway appeals then they are exempt. The farmers' cows are producing less milk because of the noise. Mr. Harman said MDE met with Delegates Rudolph, Baker and Guns to help them understand the laws/regulations. We could regulate the midnight to 7 am period. Dr. Schmitz asked what the noise level measurements are at the track. Dave Jarinko said on two dates when measurements were made, noise levels at some properties are in the mid-70 dBAs. At one mile away, they were at the 40-50 dBA level. Mr. Powell noted that he represented the former owner, John Comer, on raceway noise issues. There was a set of changes to the regulations proposed in the past but he doesn't know if the changes were implemented. Pat Bucher asked if the Department could take enforcement action based on the vibration regulation.

Joe Pantano also spoke about the Cecil County drag raceway. They moved into their home in 1974. No one informed them about the raceway for kids to race not on the highways but on the drag strip. He was told "it was no problem". He was told it was on its way out. New owner -- new ballgame. The drag strip is exempt from noise and air pollution. There are clouds of smoke and pollution. It's not fair. Jet cars race there. Someone needs to inform the drag strip owner that he can't do this. It's at 10-11. The dragstrip is on 5 acres of land. Mr. Pantano said he has all his funds invested in this house. On the weekdays, kids go to school. The neighbors should be able to enjoy their property.

Mr. Harman said that the drag raceway issue would be on the June 4th agenda.

Mr. Dan Tuten spoke about the Montgomery County Quarry. Mr. Tuten represents an organization of residents of the area near the quarry. The quarry is in a Montgomery County residential and industrial zone. The quarry should operate 6 am to 6 PM but it's running all night. Truck traffic to and from the quarry on causes noise 24 hrs/day on residential streets. Mr. Harman mentioned the state highway regulations. Mr. Tuten said soil and air pollutant standards are enforced by MDE, but not noise regulations. He said if there are problems with the noise regulations that need to be changed, let his organization know. Their attorneys sent an 8-page

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document to the Department. Mr. Jarinko mentioned vehicle laws covered in the Department of Transportation Regulations Title 11 COMAR. Mr. Tuten said trucks are creating an environmental impact on the health and welfare of residents and their children. This has to be of concern to the Department. Mr. Harman said the Noise Council and Committee has been dormant for 20 years and has been reconvened by the Secretary of MDE to address these issues. Mr. Jarinko said they are investigating the trucks. Mr. Tuten said that 103 decibels 500 yards away doesn't relate to our situation.

Russ Mirabile spoke and said this is a carbon copy of what we have experienced. MDE is allowing noise violators to get away with it. Here and now is the time to make changes. He represents the Greater Chesaco Community Organization. The grandfather rule should not be an example. He said Nancy Spiker went to the legislature and asked for a civil citation authority. Mr. Jarinko could give them a violation fine. After so many fines, you are shut down. Mr. Mirabile said the laws are simple and they must be enforced. The laws have been neglected for over 20 years. Don't tamper with the vibrations regulations. Leave the law as it is but enforce it. Let the courts decide for the State of Maryland. MDE has failed to address our needs. The violator is not wanted. We need to make MDE do something. Mr. Mirabile said he is not attacking Messrs. Harman, Grove and Jarinko personally. He believes that someone is telling them not to do something about the TPS problem. The Council needs to do something about it -- "the creeping authority/nuisance". Get the authority to have an immediate remedy to issue citations. We are asking for compliance with noise standards by the soil plant. Go to the communities and find out for yourselves.

Dave Roberts said MDE inherited the noise group from the Department of Health and Mental Hygiene (DHMH) in the 1980's. The laws are set and limits as to what the departments can do. They should be commended for what they're doing now. These are the steps to take to make changes.

Mr. Grove asked what are you doing about statutes on the books now? What do we have the authority to do? We need to see what we have to work with.

Mr. Tuten said there are 2 options -- you can take these laws away and say we are not going to do anything about it or take it seriously.

Mr. Grove thanked everyone for coming to the meeting.

The next meeting is scheduled for May 7 at 9:30 a.m.

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DRAFT
Environmental Noise Advisory Council
And
Interagency Noise Advisory Committee
Meeting Minutes
May 7, 2001, 9:30 a.m.
Chesapeake Conference Room, MDE

Members:

Council:

Senator John Astle	ex officio	absent
Delegate Jake Mohorovic	ex officio	present
Dr. Stephen Epstein	MedChi	absent/resigned
Dr. George Luz	Acoustical Society	present
Dr. Fred Schmitz	U of MD	present
Michael Powell	Public (business)	present
Nancy Benner	Public	present

Committee:

Robin Grove, Chair	MDE	present
Jesse Heier	Governor's Office	absent
Bill Grabau	MOSH	present
Ken Polcak	MDOT	present
Fred Sherbert	DNR	absent
Vacant	DHMH	absent

Guests:

- Clifford McMillin
- Gary Crossley
- Senator American Joe Miedusiewski
- Barbara Pantano
- Sandy Weymouth
- Lennie Stallings
- Tom Ogle
- Ken Begly

MDE Staff:

- George Harman
- Bill Parrish
- Dave Jarinko

The third official meeting of the Environmental Noise Advisory Council and Interagency Noise Committee was convened at 9:30 AM on April 2, 2001 at the Department of the Environment.

Agenda:

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See the attached agenda for this meeting.

Meeting Minutes

Mr. Robin Grove opened the meeting with introductions of the Council and Committee members, guests, and MDE staff. Mr. Grove explained that the guests would be provided with time to provide input at about 11:30 AM.

Minutes of April 2 meeting:

Draft minutes from this previous meeting were reviewed. Comments from Mr. Michael Powell were incorporated in the minutes handed out. There being no additional comments from the Council and the Committee, the minutes for this meeting were approved. Mr. Grove noted that his staff would strive to distribute future meeting minutes two weeks in advance of future meetings.

Legislative Update

Mr. George Harman explained the status of bills passed by the Legislature relative to noise issues. The bill HB 1423/SB 869 concerning gun clubs and SB 376 await the Governor's signature. If they are not signed by ... they will be considered vetoed. Delegate Mohorovic asked what the source of funds would be for hiring an additional noise inspector (SB 376) if it was signed into law. Mr. Harman explained that the Secretary would use a vacant position within the Department or request one through the Board of Public Works. The Senator suggested that perhaps the Council could send a letter to the Secretary supporting the new position. It was decided that no action would be taken until the deadline for the Governor's signature was reached.

Mr. Grove stated that the Department can carry out its responsibilities under the Noise statute with existing staff. He recommended that counties with adequate resources should take more action in resolving noise issues in ways similar to Montgomery County. He also said that there would always be a need for a State-level program to assist counties without resources.

Mr. Harman explained that Secretary Nishida requested an extension of the due date for a report on a budget bill item relating to staff and equipment for the noise program (see attached letter). The extension is needed to allow time for the report to be reviewed by the Department of Budget and Management. An update will be provided at the next meeting.

New Business-Gun Clubs (Issue Number 3)

Mr. Harman explained the history of gun club regulation in Maryland from the 1974 Noise Protection Act to the present. Mr. Tom Ogle offered to search for information about the legislative intent of the 1974 Act. He stated that his recollection of the intent of the Act did not consider "sporting events" as occurring for 12 to 15 hours per day, 7 days a week, as is common with today's gun club operations. Mr. Harman provided handouts with information concerning various gun clubs in the State and an overview of gun club statutes and regulations.

Mr. Dave Jarinko mentioned that the primary complaint from gun clubs is the impulse noise from guns firing. He explained that from experience he has gained with investigating 21 complaints, detectability of noise by the complainants is important as well as the actual measured

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sound levels. Most gun clubs are located in rural areas where the background noise levels are 40 to 45 dBA. Impulse noise from gun firing can reach 95 to 100 dBA. Mr. Jarinko discussed his experience with four gun club cases that attempted mitigating the noise from each facility. Most were successful in lowering impulse noise levels, although none achieved total compliance with noise level standards.

Mr. Jarinko mentioned the Stony Creek gun club, in existence since 1948, where a developer proposed a new golf course subdivision surrounding the gun club. Mr. Powell noted that this case was more of a zoning issue. Dr. George Luz noted that the Department of Defense has developed a Small Arms Range Noised Assessment Model (SARNAM). The model could be used as a tool for local planning and zoning efforts. It would need to be calibrated to a civilian noise database. Mr. Jarinko suggested that noise issues should be addressed as a "punch list" item for proposed developments. Mr. Ogle agreed that the sources of most noise problems are zoning-related. He said that about 50% of cases he deals with are related to land use, and cited the Rockville Quarry as an example. Mr. Powell suggested that information should be provided by MDE to local governments concerning the need to adopt and enforce noise ordinances.

Old Business-

-Continuous Noise

The discussion of old business began with a review of proposed changes to COMAR 26.02.03.02 and .03 in a handout from Mr. Harman. He stated that proposed regulations reflecting changes discussed by the Council and Committee at a previous meeting would be provided at the following meeting for further discussion. There was discussion about creating a definition in the regulations for gun clubs to separate them from the general term currently used, "sporting events". Dr. Schmitz mentioned that special shooting tournament events should not be dealt with differently than other 1-day events such as parades and circuses. Mr. Powell recommended that presentations by independent experts and business representatives should be made at future meetings concerning the continuous noise issue.

-Vibrations

Mr. Harman led a review of draft changes to address vibrations in COMAR. The draft changes separate the regulation of "ground-transmitted" and "air-transmitted" vibrations. The air-transmitted sound causing vibrations would be monitored using the maximum un-weighted lower three octave bands (16, 31.5 and 63 Hertz). Various decibel levels of these three bands were listed for discussion in the draft regulation. Mr. Powell objected to the use of the "NASA study" for establishing the decibel levels because it was developed for windmills and was not corroborated by other scientific studies. He recommended that a "hard" search be made of statutes in other states to determine how they deal with vibrations. Dr. Luz agreed to look into this matter. He also agreed that there is no scientific consensus on dealing with low frequency sound.

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-Other Old Business

There was some discussion of draft changes to Regulation .03. Senator Mohorovic suggested that the proposed changes to Table 1b for the variance for existing equipment be shortened from 10 to 5 years. Mr. Grabau noted that OSHA regulations cover a 20-year useful life for noise control equipment. Mr. Powell stated that business owners would want the 10-year period retained, and would also support varying standards for different types of equipment. He also said that they may want to see grandfathering of existing equipment extended for a longer period with some mitigation of noise in the interim.

All agreed to defer discussion of the proposed changes to exemptions for sanctioned auto racing, Issue Number 4, until the next meeting. It was also agreed that the next meeting date will be June 4. Allowing for vacations and holidays it was agreed that following meetings should be held on July 16 and September 9. Finally, all agreed that the Council and Committee would provide the Secretary with a list of recommendations for statute and regulation changes following the September 9 meeting.

Public Input Session

Mr. Clifford McMillin discussed the case of the Pintail Point gun club. He said that some relief was made at the club as a result of MDE's monitoring and enforcement, but that the operators were given too much time. He stated his objection to SB 869.

Mr. Gary Crossley stated his concerns about the case of the J & P Hunting Lodge. He said that the County Commissioners failed to act on his complaints in the past. Mr. Crossley noted that the lodge's shooting activities are a commercial enterprise, 7 days a week. He stated that last weekend was a particularly "bad" one and that his wife's mental state is affected by the noise from the lodge. He questioned the determination of the counties listed as exempt from regulation in SB 869. Mr. Powell suggested that Mr. Crossley direct his comments to the Governor and his State senator and delegates. Delegate Mohorovic agreed that Mr. Crossley should address his concerns to his State senator and delegates.

Mr. Ken Begly discussed the Deep Run gun club. He stated that he and his neighbors were not anti-gun activists, and he was aware of the gun club location and operations when he purchased his home 14 years ago. He provided a videotape of shooting events at the club taken from his property. The videotape was shown to those attending the meeting. Mr. Jarinko noted that sound levels measured 90 to 100 dBA at the time the videotape was made.

Mr. Grove thanked everyone for coming to the meeting.

The next meeting is scheduled for June 4 at 9:30 a.m.

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DRAFT
Environmental Noise Advisory Council
And
Interagency Noise Advisory Committee
Meeting Minutes
May 7, 2001, 9:30 a.m.
Chesapeake Conference Room, MDE

Members:

Council:

Senator John Astle	ex officio	absent
Delegate Jake Mohorovic	ex officio	present
Dr. Stephen Epstein	MedChi	absent/resigned
Dr. George Luz	Acoustical Society	present
Dr. Fred Schmitz	U of MD	present
Michael Powell	Public (business)	present
Nancy Benner	Public	present

Committee:

Robin Grove, Chair	MDE	present
Jesse Heier	Governor's Office	absent
Bill Grabau	MOSH	present
Ken Polcak	MDOT	present
Fred Sherbert	DNR	absent
Vacant	DHMH	absent

Guests:

Clifford McMillin
 Gary Crossley
 Senator American Joe Miedusiewski
 Barbara Pantano
 Sandy Weymouth
 Lennie Stallings
 Tom Ogle
 Ken Begly

MDE Staff:

George Harman
 Bill Parrish
 Dave Jarinko

The third official meeting of the Environmental Noise Advisory Council and Interagency Noise Committee was convened at 9:30 AM on April 2, 2001 at the Department of the Environment.

Agenda:

See the attached agenda for this meeting.

Meeting Minutes

Mr. Robin Grove opened the meeting with introductions of the Council and Committee members, guests, and MDE staff. Mr. Grove explained that the guests would be provided with time to provide input at about 11:30 AM.

Minutes of April 2 meeting:

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Mr. George Harman explained the status of bills passed by the Legislature relative to noise issues. The bill HB 1423/SB 869 concerning gun clubs and SB 376 await the Governor's signature. If they are not signed by ... they will be considered vetoed. Delegate Mohorovic asked what the source of funds would be for hiring an additional noise inspector (SB 376) if it was signed into law. Mr. Harman explained that the Secretary would use a vacant position within the Department or request one through the Board of Public Works. The Senator suggested that perhaps the Council could send a letter to the Secretary supporting the new position. It was decided that no action would be taken until the deadline for the Governor's signature was reached.

Mr. Grove stated that the Department can carry out its responsibilities under the Noise statute with existing staff. He recommended that counties with adequate resources should take more action in resolving noise issues in ways similar to Montgomery County. He also said that there would always be a need for a State-level program to assist counties without resources.

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Mr. Dave Jarinko mentioned that the primary complaint from gun clubs is the impulse noise from guns firing. He explained that from experience he has gained with investigating 21 complaints, detectability of noise by the complainants is important as well as the actual measured

sound levels. Most gun clubs are located in rural areas where the background noise levels are 40 to 45 dBA. Impulse noise from gun firing can reach 95 to 100 dBA. Mr. Jarinko discussed his experience with four gun club cases that attempted mitigating the noise from each facility. Most were successful in lowering impulse noise levels, although none achieved total compliance with noise level standards.

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Old Business-

-Continuous Noise

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Mr. Harman led a review of draft changes to address vibrations in COMAR. The draft changes separate the regulation of "ground-transmitted" and "air-transmitted" vibrations. The air-transmitted sound causing vibrations would be monitored using the maximum un-weighted lower three octave bands (16, 31.5 and 63 Hertz). Various decibel levels of these three bands were listed for discussion in the draft regulation. Mr. Powell objected to the use of the "NASA study" for establishing the decibel levels because it was developed for windmills and was not corroborated by other scientific studies. He recommended that a "hard" search be made of statutes in other states to determine how they deal with vibrations. Dr. Luz agreed to look into this matter. He also agreed that there is no scientific consensus on dealing with low frequency sound.

-Other Old Business

There was some discussion of draft changes to Regulation .03. Senator Mohorovic suggested that the proposed changes to Table 1b for the variance for existing equipment be shortened from 10 to 5 years. Mr. Grabau noted that OSHA regulations cover a 20-year useful life for noise control equipment. Mr. Powell stated that business owners would want the 10-year period retained, and would also support varying standards for different types of equipment. He also said that they may want to see grandfathering of existing equipment extended for a longer period with some mitigation of noise in the interim.

All agreed to defer discussion of the proposed changes to exemptions for sanctioned auto racing, Issue Number 4, until the next meeting. It was also agreed that the next meeting date will be June 4. Allowing for vacations and holidays it was agreed that following meetings should be held on July 16 and September 9. Finally, all agreed that the Council and Committee would provide the Secretary with a list of recommendations for statute and regulation changes following the September 9 meeting.

Public Input Session

Mr. Clifford McMillin discussed the case of the Pintail Point gun club. He said that some relief was made at the club as a result of MDE's monitoring and enforcement, but that the operators were given too much time. He stated his objection to SB 869.

Mr. Gary Crossley stated his concerns about the case of the J & P Hunting Lodge. He said that the County Commissioners failed to act on his complaints in the past. Mr. Crossley noted that the lodge's shooting activities are a commercial enterprise, 7 days a week. He stated that last weekend was a particularly "bad" one and that his wife's mental state is affected by the noise from the lodge. He questioned the determination of the counties listed as exempt from regulation in SB 869. Mr. Powell suggested that Mr. Crossley direct his comments to the Governor and his State senator and delegates. Delegate Mohorovic agreed that Mr. Crossley should address his concerns to his State senator and delegates.

Mr. Ken Begly discussed the Deep Run gun club. He stated that he and his neighbors were not anti-gun activists, and he was aware of the gun club location and operations when he purchased his home 14 years ago. He provided a videotape of shooting events at the club taken from his property. The videotape was shown to those attending the meeting. Mr. Jarinko noted that sound levels measured 90 to 100 dBA at the time the videotape was made.

Mr. Grove thanked everyone for coming to the meeting.

The next meeting is scheduled for June 4 at 9:30 a.m.

Interagency Noise Committee

5/7/01 137

Legislative Update

SB 869 / HB 1423

SB 376

Budget Bill →

- passed
- passed

not yet signed by Gov.

Gun Clubs

Impulsive noise

- 95-100 dBA
- low to mid 40's

(detectability as much as level if not more so)

fast A-wt of Lmax

(NRA-OK'd)

there
"Who was first"

SARNANI

"Small Arms Noise model" Assessment

military

weapons database

would

need private weap. dB

(downwind only)

(82/53 SV)

variance of results - 10-20 dBA

Tom Ogle - Mo. Co. Study Grove

75 @ 25 dBA - trucks - asphalt

D. Janiko

MD Municipal League Conv.

"noise"



Reg changes

- orange tab. in binder

13, 14, 15

1st Mon June →

3rd Mon July → 16th

August off

2nd Mon. Sept. →

Clifford McMillan - Wye R. (QA Co.)
Pintail Pt. Shooting Range
"pre-date gun range" (opposed SB+HB's)

Gary C.
pre-date gun club ⇒ ('88 established club)
"exempt as sporting event setter"

"exempt Co's" → how are they determined
local delegation decides
(within the law.)

Ken Begley - case action against gun range
review of 15 yrs → no problem
activity increase.

~~video~~ video - 80-85 dBS
85-100 dBSA

tax assessment reduction

www.askDEP.com

Tam Ogbe (Mo. Co.)

MEETING AGENDA

ENVIRONMENTAL NOISE ADVISORY COUNCIL
AND THE INTERAGENCY NOISE CONTROL COMMITTEE

May 7, 2001

9:30 AM to 12:00 PM

Patuxent Room/ Waste Management Area (first floor)

Escort service from the main lobby to be provided

*Effects of Noise
on People + Animals*

- 9:30 Welcome and Introductions
Dr. George Luz of Aberdeen is replacing Dr. Ilene Busch-Vishniac
Dr. Stephen Epstein representing Medical Chirurgical Faculty has resigned
- 9:35 Announce public input process
(five minutes for any public observer - starting at 11:30 AM)
- 9:40 Review of the minutes from April 2th meeting
- 9:45 Legislative Update George Harman
SB 869/HB 1423
SB 376
Budget bill – program evaluation – report due May
- 10:00 New Business Gun Clubs (Issue Number 3).....George Harman/Dave Jarinko
History
Statute
Regulations
Recent complaints (Deep Run, Pintail Point, J&P Hunting Lodge, others)
Current Legislative actions
Proposal(s)
- 10:45 Break
- 10:55 Old Business
 - Continuous Noise (Issue Number 1)
 - Vibrations (Issue Number 2)
- 11:15 Introduction of Issue 4 – Exemption for sanctioned auto racing facilities
- 11:25 Schedule of future issues
- 11:30 Public input (five minutes each)
- 12:00 Adjourn

**Environmental Noise Advisory Council
And
Interagency Noise Advisory Committee
Meeting Minutes
April 2, 2001, 9:30 a.m.
Chesapeake Conference Room, MDE**

Members:

Council:

Senator John Astle	ex officio	absent
Delegate Jake Mohorovic	ex officio	absent
Dr. Stephen Epstein	MedChi	absent
Dr. Ilene Busch-Vishniac	Acoustical Society	absent
Dr. Fred Schmitz	U of MD	present
Michael Powell	Public (business)	present
Nancy Benner	Public	present

Committee:

Robin Grove, Chair	MDE	present	
Jesse Heier	Governor's Office	absent	
Bill Grabau	MOSH	present	
Ken Polcak	MDOT	present	
Fred Sherbert	DNR	present	
Vacant	DHMH	absent	Dave Roberts attended

Guests:

- Barbara Pantano
- Joe Pantano
- Sandy Weymouth
- Fletcher
- Button
- Ms. Martinec
- Dan Tuten
- Russ Mirabile
- Dan Schultz

MDE Staff:

- George Harman
- Bill Parrish
- Dave Jarinko
- Carolyn Kuciara

The second official meeting of the Environmental Noise Advisory Council and Interagency Noise Committee was convened at 9:30 AM on April 2, 2001 at the Department of the Environment.

Agenda:

See the attached agenda for this meeting.

Meeting Minutes

Mr. Robin Grove opened the meeting with introductions of the Council and Committee members, guests, and MDE staff. Mr. Grove explained that the guests would be provided with time to provide input at about 11:30 AM.

Minutes of March 5 meeting:

Draft minutes from this previous meeting were reviewed. There being no comments from the Council and the Committee, the minutes for this meeting were approved.

Legislative Update

Mr. George Harman explained the status of bills being considered by the Legislature relative to noise issues. There are 2 bills that were submitted late in the Session that went to the Rules Committee and were rushed through. Senators Jimeno and Miller sponsored SB869 and Delegate Casper Taylor sponsored HB1423 concerning gun clubs. George Harman explained the intent of the bills. The bills would exempt gun clubs for 15 counties from regulation. An amendment was submitted to change the grand-fathering date in selected counties. This amendment would exempt certain gun clubs from regulation. Senator Stone introduced SB376 that requires the department to have three noise inspectors. This was later changed from 3 to 2. Authority to issue civil citations for noise standards violators was included but this may be removed. Representatives of the Rosedale and Chesaco communities gave testimony on this bill. Mr. Harman will provide a synopsis of the bills to be distributed at the next meeting. He also mentioned that information on the bills is available on the Internet on Maryland Electronic Capital--Legislature--bills--#s--sponsors.

Options for Continuous Noise Control (Issue #1) Mr. Harman introduced the Department's proposed statutory revisions concerning noise goals vs. standards. Table 2 and 2 were not identical said Mr. Michael Powell. Eliminate table 1 and move information into Table 2. Continuous noise operating at 55-dBA day/night average comes out to 48.6 dBA by adopting Table 1A. This is applicable to new equipment. Table 2b refers to equipment already on board applicable for ten years to January 1, 2012 unless a variance is approved. Dr. Fred Schmitz said that two identical sound sources at 55 dBA would noise levels of 58 dBA. Regarding beltway noise, he said we can not change zoning laws and rezone. Dr. Schmitz said if more industry comes into an area, all existing industry must reduce noise output levels in order to maintain the 55 dBA noise level. Mr. Powell suggested that language be included in the variance section to deal with unusual circumstances on a case-by-case basis. Mr. Grove said noise regulations end up being zoning restrictions generated by a planning issue. Mr. Powell cited airport regulations. Mr. Harman said any two sources can impact general public. Mr. Dave Jarinko said Ldn day/night level is calculated by sound pressure level. Equipment that runs 24/7 raises the noise floor. Mr. Harman said CNEL day/night averaging restriction 7 pm-10 PM adding three tenths of a decibel. Robin said 7 am-10 PM noise allowable. Mr. Harman said a new industry has the option of shutting down earlier. Mr. Grove said the Council's final recommendations would go to the Department for approval (formal process) including public input before adoption. Mr. Harman suggested that Mr. Tom Ogle of Montgomery County, who has experience on this issue,

could not make this meeting but should be here at the next meeting. Dr. Schmitz asked if we should take some action on the "multiple source" issue. Mr. Powell asked if Mr. Harman would email the regulations to him so he can propose some changes to address the continuous issue.

Vibrations (issue#2)

Mr. Jarinko said that there is a need to incorporate low frequency sound measurements into rules for vibrations. He said the human ear does not hear very well -- from 16 Hertz to 20,000 Hertz. Limitations of low frequency sound, i.e. APG munitions gun shots. Consider low frequency NASA study was done with periodic rather than impulsive sound. Mr. Powell asked whether the NASA study guidelines had been adopted as a scientific consensus. Dr. Schmitz said that's where the controversy comes in. Mr. Jarinko said vibration complaints could allow for a linear component. Mr. Grove noted that while something may not were "loud" in volume, it can still be annoying. Within our noise regulations, there is a provision that deals with vibrations. Mr. Harman and Dr. Schmitz agreed that an accelerometer (in-ground) is needed to set standards for noise/vibrations. Dr. Schmitz pointed-out that vibration is a function of the materials and construction of a structure. Mr. Powell asked if any states regulate vibrations, i.e., California? Mr. Harman replied that MDE was not aware of any at this time. Mrs. Benner read from the regulation the section (COMAR 26.02.03.04) concerning vibrations. Mr. Harman said the regulation means "zero vibrations" are acceptable. Dr. Schmitz said the levels of vibration allowed are meant to be "imperceptible". Nancy Benner stated that the existing law and regulations should be enforced. Mr. Harman said the Department doesn't want to go to court if we are going to lose. Mr. Grove suggested that the courts should decide how the existing legislation should be interpreted (appellate process). Mrs. Benner mentioned the definition of "noise pollution" in COMAR 26.02.03.01.O She said noise pollution is an important quality of life issue and laws are in place but are not being enforced. There is documentation banning snowmobiles because of noise impacts on animals. She speaks for her community. Mr. Grove said the current regulations have a process where the Department can require a plan of compliance. The Department holds penalties in abeyance until they come into compliance. The violator, after showing that they have done everything they can to come into compliance, can ask for a variance. The Secretary of MDE can determine if the variance should be given. If not, the Department can take the violator to court. Allowing the "victim(s)" to take legal action. Mr. Jarinko said a high temperature rotary kiln at TPS has a low frequency component of 10-15dBA. Mrs. Benner presented a video/audio of noise/vibrations in her home. She has double pane windows. This is going on 24/7. The video/audio was taken Saturday September 30th at 6 PM at her property line. Mr. Grove said this is an example of low frequency vibration.

Sandy Weymouth then spoke about the Cecil County drag raceway. It operates Friday nights, Saturday and Sunday during the day over the last year. The ownership has changed. They are now running races on Thursday nights during spring through fall and Saturday and Sunday during the day. The raceway was there originally as a youth facility. Mr. Weymouth said he questions the "grandfather clause" and the limit of what an organization can do.

Pat Butcher spoke about the Cecil County drag raceway. It has been there since 1988. They were told it was to be closed when they purchased their nearby home. The noise goes on 24/7. Their property is located 200 yards at the end of the dragway.

Mr. Schultz spoke about the Cecil County drag raceway. They have triple pane Andersen windows, which rattle, and it's like living in East Beirut with aircraft and anti-aircraft guns going off. Oxford, PA residents comment to him about the noise. The cars do not use mufflers. Pennsylvania has ordinances that make the cars have mufflers. Smoking tires will come up at the EPA meeting. It's all about "location-location-location". On June 4th MDE will be inundated with Cecil County drag raceway people. The raceway is near Interstate 95 with easy on/off exits. He moved into his home in 1993. He knew it was there and even worked there as a kid building cars. He now works for Boeing. Aircraft are now less noisy. They need negotiations with the raceway. There's 7,000 horsepower of motors. In 1997 Johnny Comer started at 7 PM on Wednesday nights. The new owner lives in Delaware.

Barbara Pantano spoke about the Cecil County drag raceway. She represents 85 people who live near the raceway. She went to the County Commissioners. There needs to be a change to the 1977 law. They do not get 8 hours of sleep because the drag strip is still operating at midnight. They have a stone house. Some residents have brick or siding. They've been fighting this for 15 years. There are no zoning or nuisance laws. Delegates Ron Guns and Dave Rudolph have been contacted. They need MDE's help in getting the laws changed so they can have some relief. The raceway is exempt to race or practice 24/7. They've tried the courts and the raceway appeals then they are exempt. The farmers' cows are producing less milk because of the noise. Mr. Harman said MDE met with Delegates Rudolph, Baker and Guns to help them understand the laws/regulations. We could regulate the midnight to 7 am period. Dr. Schmitz asked what the noise level measurements are at the track. Dave Jarinko said on two dates when measurements were made, noise levels at some properties are in the mid-70 dBAs. At one mile away, they were at the 40-50 dBA level. Mr. Powell noted that he represented the former owner, John Comer, on raceway noise issues. There was a set of changes to the regulations proposed in the past but he doesn't know if the changes were implemented. Pat Bucher asked if the Department could take enforcement action based on the vibration regulation.

Joe Pantano also spoke about the Cecil County drag raceway. They moved into their home in 1974. No one informed them about the raceway for kids to race not on the highways but on the drag strip. He was told "it was no problem". He was told it was on its way out. New owner -- new ballgame. The drag strip is exempt from noise and air pollution. There are clouds of smoke and pollution. It's not fair. Jet cars race there. Someone needs to inform the drag strip owner that he can't do this. It's at 10-11. The dragstrip is on 5 acres of land. Mr. Pantano said he has all his funds invested in this house. On the weekdays, kids go to school. The neighbors should be able to enjoy their property.

Mr. Harman said that the drag raceway issue would be on the June 4th agenda.

Mr. Dan Tuten spoke about the Montgomery County Quarry. Mr. Tuten represents an organization of residents of the area near the quarry. The quarry is in a Montgomery County residential and industrial zone. The quarry should operate 6 am to 6 PM but it's running all night. Truck traffic to and from the quarry on causes noise 24 hrs/day on residential streets. Mr. Harman mentioned the state highway regulations. Mr. Tuten said soil and air pollutant standards are enforced by MDE, but not noise regulations. He said if there are problems with the noise regulations that need to be changed, let his organization know. Their attorneys sent an 8-page

document to the Department. Mr. Jarinko mentioned vehicle laws covered in the Department of Transportation Regulations Title 11 COMAR. Mr. Tuten said trucks are creating an environmental impact on the health and welfare of residents and their children. This has to be of concern to the Department. Mr. Harman said the Noise Council and Committee has been dormant for 20 years and has been reconvened by the Secretary of MDE to address these issues. Mr. Jarinko said they are investigating the trucks. Mr. Tuten said that 103 decibels 500 yards away doesn't relate to our situation.

Russ Mirabile spoke and said this is a carbon copy of what we have experienced. MDE is allowing noise violators to get away with it. Here and now is the time to make changes. He represents the Greater Chesaco Community Organization. The grandfather rule should not be an example. He said Nancy Spiker went to the legislature and asked for a civil citation authority. Mr. Jarinko could give them a violation fine. After so many fines, you are shut down. Mr. Mirabile said the laws are simple and they must be enforced. The laws have been neglected for over 20 years. Don't tamper with the vibrations regulations. Leave the law as it is but enforce it. Let the courts decide for the State of Maryland. MDE has failed to address our needs. The violator is not wanted. We need to make MDE do something. Mr. Mirabile said he is not attacking Messrs. Harman, Grove and Jarinko personally. He believes that someone is telling them not to do something about the TPS problem. The Council needs to do something about it -- "the creeping authority/nuisance". Get the authority to have an immediate remedy to issue citations. We are asking for compliance with noise standards by the soil plant. Go to the communities and find out for yourselves.

Dave Roberts said MDE inherited the noise group from the Department of Health and Mental Hygiene (DHMH) in the 1980's. The laws are set and limits as to what the departments can do. They should be commended for what they're doing now. These are the steps to take to make changes.

Mr. Grove asked what are you doing about statutes on the books now? What do we have the authority to do? We need to see what we have to work with.

Mr. Tuten said there are 2 options -- you can take these laws away and say we are not going to do anything about it or take it seriously.

Mr. Grove thanked everyone for coming to the meeting.

The next meeting is scheduled for May 7 at 9:30 a.m.

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MEETING AGENDA

ENVIRONMENTAL NOISE ADVISORY COUNCIL
AND THE INTERAGENCY NOISE CONTROL COMMITTEE

May 7, 2001

9:30 AM to 12:00 PM

Patuxent Room/ Waste Management Area (first floor)

Escort service from the main lobby to be provided

- 9:30 Welcome and Introductions
Dr. George Luz of Aberdeen is replacing Dr. Ilene Busch-Vishniac
Dr. Stephen Epstein representing Medical Chirurgical Faculty has resigned
- 9:35 Announce public input process
(five minutes for any public observer - starting at 11:30 AM)
- 9:40 Review of the minutes from April 2th meeting
- 9:45 Legislative Update George Harman
SB 869/HB 1423
SB 376
Budget bill – program evaluation – report due May
- 10:00 New Business Gun Clubs (Issue Number 3)..... George Harman/Dave Jarinko
History
Statute
Regulations
Recent complaints (Deep Run, Pintail Point, J&P Hunting Lodge, others)
Current Legislative actions
Proposal(s)
- 10:45 Break
- 10:55 Old Business
 - Continuous Noise (Issue Number 1)
 - Vibrations (Issue Number 2)
- 11:15 Introduction of Issue 4 – Exemption for sanctioned auto racing facilities
- 11:25 Schedule of future issues
- 11:30 Public input (five minutes each)
- 12:00 Adjourn

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From: "Powell, Michael C." <mpowell@GFRLAW.com>
To: 'Carolyn Kuciara' <ckuciara@mde.state.md.us>, <Geo...
Date: Fri, May 4, 2001 10:29 AM
Subject: RE: Materials for the May 7th Noise Meeting

I may be late to the meeting on Monday but I would like to move for a couple of corrections to the minutes of the last meeting:

1. On issue#2 - vibrations, the following sentence is included:

"Mr. Powell said the NASA study was based on a consensus of the public. Dr. Schmitz said that's where the controversy comes in."

Actually, I asked the *question* whether the NASA study guidelines represented a scientific consensus. My recollection was that I received a reply that it was controversial. A correct note would be:

"Mr. Powell asked whether the NASA study guidelines had been adopted as a scientific consensus. Dr. Schmitz said there was a controversy on the issue."

2. On the same issue:

"Mr. Powell asked if any states regulate vibrations, i.e., California?" My recollection is that Mr. Harman replied that MDE was not aware of any at this time.

3. A slight correction on the Cecil County Dragway paragraph:

"Mr. Powell noted that he represented the owner, John Comer, on raceway noise issues." It should say that I represented the *former* owner, John Comer.

-----Original Message-----

From: Carolyn Kuciara [mailto:ckuciara@mde.state.md.us]
Sent: Thursday, May 03, 2001 3:55 PM
To: George.Luz@amedd.army.mil; DAVIDR@dhhm.state.md.us;
zeleskc@dhhm.state.md.us; fsherbert@dnr.state.md.us;
fschmitz@eng.umd.edu; mpowell@gfrlaw.com; jheier@gov.state.md.us;
david_rudolph@house.state.md.us; jacob_mohorovic@house.state.md.us;
wheeler_baker@house.state.md.us; Dave Jarinko; Robert Field;
rgrove@mde.state.md.us; Lstabenfeldt@multistate.com;
william.grabau@osha.gov; jmiedusiewski@semmes.com;
john_astle@senate.state.md.us; kpolcak@sha.state.md.us
Subject: Materials for the May 7th Noise Meeting

Attached please find the minutes of the April 2nd meeting and the agenda for the May 7th Noise meeting at the Maryland Department of the Environment, 2500 Broening Highway, Baltimore, MD 21224. If you have any questions or I can be of any assistance, please do not hesitate to email me or call 410-631-3183.

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The information supplied in this message may be legally privileged. If you are not the intended recipient of this message, the sender does not intend delivery to you to waive any privilege or right pertaining to this message. If you have received this message in error, please immediately notify the sender by return e-mail, and delete the errant message. Thank you.

From: "Carolyn Kuciara" <ckuciara@mde.state.md.us>
To: <George.Luz@amedd.army.mil>, <DAVIDR@dhmh.state.md...
Date: Thu, May 3, 2001 3:51 PM
Subject: Materials for the May 7th Noise Meeting

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Attached please find the minutes of the April 2nd meeting and the agenda for the May 7th Noise meeting at the Maryland Department of the Environment, 2500 Broening Highway, Baltimore, MD 21224. If you have any questions or I can be of any assistance, please do not hesitate to email me or call 410-631-3183.

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**Environmental Noise Advisory Council
And
Interagency Noise Advisory Committee
Meeting Minutes
April 2, 2001, 9:30 a.m.
Chesapeake Conference Room, MDE**

Members:**Council:**

Senator John Astle	ex officio	absent	
Delegate Jake Mohorovic	ex officio	absent	
Dr. Stephen Epstein	MedChi	absent	
Dr. Ilene Busch-Vishniac	Acoustical Society	absent	
Dr. Fred Schmitz	U of MD	present	
Michael Powell	Public (business)	present	
Nancy Benner	Public	present	

Committee:

Robin Grove, Chair	MDE	present	
Jesse Heier	Governor's Office	absent	
Bill Grabau	MOSH	present	
Ken Polcak	MDOT	present	
Fred Sherbert	DNR	present	
Vacant	DHMH	absent	Dave Roberts attended

Guests:

Barbara Pantano
Joe Pantano
Sandy Weymouth
Fletcher
Button
Ms. Martinec
Dan Tuten
Russ Mirabile
Dan Schultz

MDE Staff:

George Harman
Bill Parrish
Dave Jarinko
Carolyn Kuciara

The second official meeting of the Environmental Noise Advisory Council and Interagency Noise Committee was convened at 9:30 AM on April 2, 2001 at the Department of the Environment.

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Agenda:

See the attached agenda for this meeting.

Meeting Minutes

Mr. Robin Grove opened the meeting with introductions of the Council and Committee members, guests, and MDE staff. Mr. Grove explained that the guests would be provided with time to provide input at about 11:30 AM.

Minutes of March 5 meeting:

Draft minutes from this previous meeting were reviewed. There being no comments from the Council and the Committee, the minutes for this meeting were approved.

Legislative Update

Mr. George Harman explained the status of bills being considered by the Legislature relative to noise issues. There are 2 bills that were submitted late in the Session that went to the Rules Committee and were rushed through. Senators Jimeno and Miller sponsored SB869 and Delegate Casper Taylor sponsored HB1423 concerning gun clubs. George Harman explained the intent of the bills. The bills would exempt gun clubs for 15 counties from regulation. An amendment was submitted to change the grand-fathering date in selected counties. This amendment would exempt certain gun clubs from regulation. Senator Stone introduced SB376 that requires the department to have three noise inspectors. This was later changed from 3 to 2. Authority to issue civil citations for noise standards violators was included but this may be removed. Representatives of the Rosedale and Chesaco communities gave testimony on this bill. Mr. Harman will provide a synopsis of the bills to be distributed at the next meeting. He also mentioned that information on the bills is available on the Internet on Maryland Electronic Capital--Legislature--bills--#s--sponsors.

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Vibrations (issue#2)

Mr. Jarinko said that there is a need to incorporate low frequency sound measurements into rules for vibrations. He said the human ear does not hear very well -- from 16 Hertz to 20,000 Hertz. Limitations of low frequency sound, i.e. APG munitions gun shots. Consider low frequency NASA study was done with periodic rather than impulsive sound. Mr. Powell said the NASA study was based on a consensus of the public. Dr. Schmitz said that's where the controversy comes in. Mr. Jarinko said vibration complaints could allow for a linear component. Mr. Grove noted that while something may not be "loud" in volume, it can still be annoying. Within our noise regulations, there is a provision that deals with vibrations. Mr. Harman and Dr. Schmitz agreed that an accelerometer (in-ground) is needed to set standards for noise/vibrations. Dr. Schmitz pointed-out that vibration is a function of the materials and construction of a structure. Mr. Powell asked if any states regulate vibrations, i.e., California? Mrs. Benner read from the regulation the section (COMAR 26.02.03.04) concerning vibrations. Mr. Harman said the regulation means "zero vibrations" are acceptable. Dr. Schmitz said the levels of vibration allowed are meant to be "imperceptible". Nancy Benner stated that the existing law and regulations should be enforced. Mr. Harman said the Department doesn't want to go to court if we are going to lose. Mr. Grove suggested that the courts should decide how the existing legislation should be interpreted (appellate process). Mrs. Benner mentioned the definition of "noise pollution" in COMAR 26.02.03.01.O She said noise pollution is an important quality of life issue and laws are in place but are not being enforced. There is documentation banning snowmobiles because of noise impacts on animals. She speaks for her community. Mr. Grove said the current regulations have a process where the Department can require a plan of compliance. The Department holds penalties in abeyance until they come into compliance. The violator, after showing that they have done everything they can to come into compliance, can ask for a variance. The Secretary of MDE can determine if the variance should be given. If not, the Department can take the violator to court. Allowing the "victim(s)" to take legal action. Mr. Jarinko said a high temperature rotary kiln at TPS has a low frequency component of 10-15dBA. Mrs. Benner presented a video/audio of noise/vibrations in her home. She has double pane windows. This is going on 24/7. The video/audio was taken Saturday September 30th at 6 PM at her property line. Mr. Grove said this is an example of low frequency vibration.

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Their property is located 200 yards at the end of the dragway.

Mr. Schultz spoke about the Cecil County drag raceway. They have triple pane Andersen windows, which rattle, and it's like living in East Beirut with aircraft and anti-aircraft guns going off. Oxford, PA residents comment to him about the noise. The cars do not use mufflers. Pennsylvania has ordinances that make the cars have mufflers. Smoking tires will come up at the EPA meeting. It's all about "location-location-location". On June 4th MDE will be inundated with Cecil County drag raceway people. The raceway is near Interstate 95 with easy on/off exits. He moved into his home in 1993. He knew it was there and even worked there as a kid building cars. He now works for Boeing. Aircraft are now less noisy. They need negotiations with the raceway. There's 7,000 horsepower of motors. In 1997 Johnny Comer started at 7 PM on Wednesday nights. The new owner lives in Delaware.

Barbara Pantano spoke about the Cecil County drag raceway. She represents 85 people who live near the raceway. She went to the County Commissioners. There needs to be a change to the 1977 law. They do not get 8 hours of sleep because the drag strip is still operating at midnight. They have a stone house. Some residents have brick or siding. They've been fighting this for 15 years. There are no zoning or nuisance laws. Delegates Ron Guns and Dave Rudolph have been contacted. They need MDE's help in getting the laws changed so they can have some relief. The raceway is exempt to race or practice 24/7. They've tried the courts and the raceway appeals then they are exempt. The farmers' cows are producing less milk because of the noise. Mr. Harman said MDE met with Delegate Rudolph, Baker and Guns to help them understand the laws/regulations. We could regulate the midnight to 7 am period. Fred Schmitz asked what the noise level measurements are at the track. Dave Jarinko said on two dates when measurements were made, noise levels at some properties are in the mid-70 dBAs. At one mile away, they were at the 40-50 dBA level. Mr. Powell noted that he represented the owner, John Comer, on raceway noise issues. There was a set of changes to the regulations proposed in the past but he doesn't know if the changes were implemented. Pat Bucher asked if the Department could take enforcement action based on the vibration regulation.

Joe Pantano also spoke about the Cecil County drag raceway. They moved into their home in 1974. No one informed them about the raceway for kids to race not on the highways but on the drag strip. He was told "it was no problem". He was told it was on its way out. New owner -- new ballgame. The drag strip is exempt from noise and air pollution. There are clouds of smoke and pollution. It's not fair. Jet cars race there. Someone needs to inform the drag strip owner that he can't do this. It's at 10-11. The dragstrip is on 5 acres of land. Mr. Pantano said he has all his funds invested in this house. On the weekdays, kids go to school. The neighbors should be able to enjoy their property.

Mr. Harman said that the drag raceway issue would be on the June 4th agenda.

Mr. Dan Tuten spoke about the Montgomery County Quarry. Mr. Tuten represents an organization of residents of the area near the quarry. The quarry is in a Montgomery County residential and industrial zone. The quarry should operate 6 am to 6 PM but it's running all night. Truck traffic to and from the quarry on causes noise 24 hrs/day on residential streets. Mr.

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Harman mentioned the state highway regulations. Mr. Tuten said soil and air pollutant standards are enforced by MDE, but not noise regulations. He said if there are problems with the noise regulations that need to be changed, let his organization know. Their attorneys sent an 8-page document to the Department. Mr. Jarinko mentioned vehicle laws covered in the Department of Transportation Regulations Title 11 COMAR. Mr. Tuten said trucks are creating an environmental impact on the health and welfare of residents and their children. This has to be of concern to the Department. Mr. Harman said the Noise Council and Committee has been dormant for 20 years and has been reconvened by the Secretary of MDE to address these issues. Mr. Jarinko said they are investigating the trucks. Mr. Tuten said that 103 decibels 500 yards away doesn't relate to our situation.

Russ Mirabile spoke and said this is a carbon copy of what we have experienced. MDE is allowing noise violators to get away with it. Here and now is the time to make changes. He represents the Greater Chesaco Community Organization. The grandfather rule should not be an example. He said Nancy Spiker went to the legislature and asked for a civil citation authority. Mr. Jarinko could give them a violation fine. After so many fines, you are shut down. Mr. Mirabile said the laws are simple and they must be enforced. The laws have been neglected for over 20 years. Don't tamper with the vibrations regulations. Leave the law as it is but enforce it. Let the courts decide for the State of Maryland. MDE has failed to address our needs. The violator is not wanted. We need to make MDE do something. Mr. Mirabile said he is not attacking Messrs. Harman, Grove and Jarinko personally. He believes that someone is telling them not to do something about the TPS problem. The Council needs to do something about it -- "the creeping authority/nuisance". Get the authority to have an immediate remedy to issue citations. We are asking for compliance with noise standards by the soil plant. Go to the communities and find out for yourselves.

Dave Roberts said MDE inherited the noise group from the Department of Health and Mental Hygiene (DHMH) in the 1980's. The laws are set and limits as to what the departments can do. They should be commended for what they're doing now. These are the steps to take to make changes.

Mr. Grove asked what are you doing about statutes on the books now? What do we have the authority to do? We need to see what we have to work with.

Mr. Tuten said there are 2 options -- you can take these laws away and say we are not going to do anything about it or take it seriously.

Mr. Grove thanked everyone for coming to the meeting.

The next meeting is scheduled for May 7 at 9:30 a.m.

26.02.03.00

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 02 OCCUPATIONAL, INDUSTRIAL, AND RESIDENTIAL HAZARDS

Chapter 03 Control of Noise Pollution

Authority: Environment Article, § 3-401, Annotated Code of Maryland

Preface

The Environmental Noise Act of 1974 of the State of Maryland declares as policy the limitation of noise to that level which will protect the health, general welfare, and property of the people of the State. It requires that the Department assume responsibility for the jurisdiction over the level of noise, and prepare regulations for the control of noise, including the establishment of standards for ambient noise levels and equipment performance with respect to noise, for adoption by the Secretary of the Environment. Enforcement of the regulations and standards is the responsibility of the Department in all areas, using the facilities and services of local agencies within the areas to the greatest extent possible. The Department shall coordinate the programs of all State agencies relating to noise abatement, and each State agency prescribing sound level limits or regulations respecting noise shall obtain the endorsement of the Department in prescribing any limits or regulations.

26.02.03.01

.01 Definitions.

A. "ANSI" means American National Standards Institute or its successor bodies.

B. "Construction" means any site preparation, assembly, erection, repair, alteration, or similar activity.

C. "Day-night average sound level (Ldn)" means in decibels, the energy average sound level for a 24-hour day with a 10 decibel penalty applied to noise occurring during the nighttime period; i.e., noise levels occurring during the period from 10 p.m. one day until 7 a.m. the next are treated as though they were 10 dBA higher than they actually are. The use of the A-weighting is understood. The mathematical expression for Ldn is as follows:

$$L_{dn} = 10 \log_{10} \left[\frac{15(10)^{(L_d/10)} + 9(10)^{(L_n+10/10)}}{24} \right]$$

where L_d = the daytime average sound level, and

where L_n = the nighttime average sound level

- 1 D. "dBA" means abbreviation for the sound level in decibels determined by the A-
- 2 weighting network of a sound level meter or by calculation from octave band or one-third
- 3 octave band data.
- 4 E. "Daytime hours" means 7 a.m. to 10 p.m., local time.
- 5 F. "Decibel (dB)" means a unit of measure equal to ten times the logarithm to the base ten
- 6 of the ratio of a particular sound pressure squared to a standard reference pressure
- 7 squared. For the purpose of this subtitle, 20 micropascals shall be the standard reference
- 8 pressure.
- 9 G. "Demolition" means any dismantling, destruction, or removal activities.
- 10 H. "Department" means the Department of the Environment.
- 11 I. "Emergency" means any occurrence or set of circumstances involving actual or
- 12 imminent physical trauma or property damage, which demands immediate action.
- 13 J. "Environmental noise" means the noise that exists at any location from all sources.
- 14 K. "Environmental noise standards" means the A-WEIGHTED INTRUDING
- 15 INTRUDING SOUND LEVEL LIMITS FOR ~~goals for environmental noise, the~~
- 16 ~~attainment and maintenance OF AN ADEQUATE ENVIRONMENT of which, in~~
- 17 ~~defined areas and under specific conditions, are necessary~~ to protect the public health and
- 18 general welfare.
- 19 L. "Equivalent sound level" (also "average sound level") means the level of a constant
- 20 sound which, in a given situation and time period, would convey the same sound energy
- 21 as does the actual time-varying sound during the same period. Equivalent sound level is
- 22 the level of the time weighted, mean-square, A-weighted sound pressure. A numerical
- 23 subscript may be used to indicate the time period under consideration; i.e., Leq24 or Leq8
- 24 for 24-hour and 8-hour periods, respectively. No subscript indicates a 24-hour period.
- 25 The mathematical expression for the Leq as follows:

$$L_{eq} = 10 \log_{10} \left[\frac{1}{t_2 - t_1} \int_{t_1}^{t_2} 10^{LA(t)/10} dt \right] \text{ dBA}$$

where t1 and t2 are the beginning and ending times, respectively, of the period over which the average is determined, and LA (t) is the instantaneous A-weighted sound pressure level fluctuating with time.

- 33 M. "Nighttime hours" means 10 p.m. to 7 a.m., local time.
- 34 N. "Noise" means the intensity, frequency, duration, and character of sound, including
- 35 sound and vibration of sub-audible frequencies.
- 36 O. "Noise pollution" means the presence of noise of sufficient loudness, character, and
- 37 duration, which whether from a single source or multiple sources, is, or may be predicted
- 38 with reasonable certainty to be, injurious to health or which unreasonably interferes with
- 39 the proper enjoyment of property or with any lawful business or activity.
- 40 P. "Periodic noise" means noise possessing a repetitive on-and-off characteristic.
- 41 Q. "Person" means any individual, group of individuals, firm, partnership, voluntary
- 42 association, or private, public, or municipal corporation, or political subdivision of the
- 43 State, or department, bureau, agency, or instrument of federal, State, or local government,
- 44 responsible for the use of property.

R. "Prominent discrete tone" means any sound which can be distinctly heard as a single pitch or a set of single pitches. For the purposes of this regulation, a prominent discrete tone shall exist if the one-third octave band sound pressure level in the band with the tone exceeds the arithmetic average of the sound pressure levels of the 2 contiguous one-third octave bands by 5 dB for center frequencies of 500 Hz and above and by 8 dB for center frequencies between 160 and 400 Hz and by 15 dB for center frequencies less than or equal to 125 Hz.

S. "Sound level" means, in decibels, the weighted sound pressure level measured by the use of a sound level meter satisfying the requirements of ANSI S1.4 1971 "Specifications for Sound Level Meters". Sound level and noise level are synonymous. The weighting employed shall always be specified.

T. "Sound level meter" means an instrument, meeting ANSI S1.4 1971 "Specifications for Sound Level Meters", comprising a microphone, an amplifier, an output meter, and frequency-weighting network(s) that is used for the measurement of sound pressure levels in a specified manner.

U. Sound Pressure.

(1) "Sound pressure" means the minute fluctuations in atmospheric pressure which accompany the passage of a sound wave.

(2) For a steady sound, the value of the sound pressure average over a period of time.

(3) Sound pressure is usually measured in dynes per square centimeter (dyne/cm squared), or in newtons per square meter (N/m squared), or in micropascals.

V. "Sound pressure level" means, in decibels, 20 times the logarithm to the base ten of the ratio of a sound pressure to the reference sound pressure of 20 micropascals (20 micronewtons per square meter). In the absence of any modifier, the level is understood to be that of a root-mean-square pressure.

W. "Source" means any person or property, real or personal, contributing to noise pollution.

X. "Vibration" means any oscillatory motion of solid bodies.

Y. "Zoning district" means a general land use category, defined according to local subdivision, the activities and uses for which are generally uniform throughout the subdivision. For the purposes of this regulation, property which is not zoned "residential", "commercial", or "industrial", shall be classified according to use as follows:

- (1) "Commercial" means property used for buying and selling goods and services;
- (2) "Industrial" means property used for manufacturing and storing goods;
- (3) "Residential" means property used for dwellings.

26.02.03.02

.02 Environmental Noise Standards.

A. Precepts.

(1) It is known that noise above certain levels is harmful to the health of humans. Although precise levels at which all adverse health effects occur have not definitely been ascertained, it is known that one's well-being can be affected by noise through loss of sleep, speech interference, hearing impairment, and a variety of other psychological and physiological factors. The establishment of ambient noise

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standards, ~~or goals~~, must provide margins of safety in reaching conclusions based on available data which relate noise exposure to health and welfare effects, with due consideration to technical and economic factors.

(2) The environmental noise standards set forth here ~~represent goals~~ expressed in terms of equivalent A-weighted sound levels ARE INTENDED TO ACHIEVE THE GOALS, which are protective of the public health and welfare. The ambient noise levels shall be achieved through application, under provisions of laws or regulations or otherwise, of means for reducing noise levels including, but not limited to, isolation of noise producing equipment, dampening of sound waves by insulation, equipment modification and redesign, and land use management.

B. Standards for Environmental Noise-----General.

(1) The ~~standards are~~ goals for the attainment of an adequate environment ARE INTENDED TO BE ACHIEVED THROUGH THE. ~~The standards set out in Regulation .03 are intended to achieve these goals.~~

(2) ~~The following sound levels represent the standards for the State by general zoning district:~~

Table 1
Environmental Noise Standards

<i>Zoning District</i>	<i>Level</i>	<i>Measure</i>
Industrial	70 dBA	L (24) eq
Commercial	64 dBA	L dn
Residential	55 dBA	L dn

26.02.03.03

.03 General Regulations.

A. Noise and Vibration Prohibitions.

(1) A person may not cause or permit noise levels which exceed those specified in Table 2 AND 3 except as provided in § A B(4 2) or (5 3), or § B C, below.

B. Standards for Environmental Noise-----General.

(3) ~~The standards are goals for the attainment of an adequate environment.~~

(1) The ~~following~~ sound levels IN TABLE 1 represent the standards for the State by general zoning district:

Table 1a
NOISE PRODUCING EQUIPMENT ~~Environmental Noise Standards~~

<i>Zoning District</i>	<i>Level</i>	<i>Measure</i>
Industrial	70 dBA	L (24) eq
Commercial	64 dBA	L dn

shorten to 5 yrs. delay Mohono case
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1 Residential 55 dBA L dn

2
3 (2) TABLE 1a SHALL BE APPLICABLE TO ALL NEW EQUIPMENT AND ANY
4 SUBSTANTIAL REPLACEMENTS INSTALLED AFTER JANUARY 1, 2002.
5 TABLE 2b STANDARDS SHALL BE APPLICABLE FOR THE REMAINING
6 LIFE OF EXISTING EQUIPMENT FOR UP TO 10 YEARS. EFFECTIVE
7 JANUARY 1, 2012 SOUND MITIGATION MEASURES SHALL BE
8 INSTITUTED TO ABATE NOISE LEVELS TO THOSE ALLOWED IN TABLE 1a
9 UNLESS A VARIANCE IS APPROVED.

10
11 Table 1b
12 NOISE PRODUCING EQUIPMENT ~~Environmental Noise Standards~~

14 Zoning District	Level	Measure
15 Industrial	70 dBA	L (24) eq
16 Commercial	70 dBA	L dn
17 Residential	61.4 dBA	L dn

18
19
20 (3 2) THE SOUND LEVELS IN TABLE 2 REPRESENT THE STANDARDS FOR
21 THE STATE BY RECEIVING LAND USE:

22
23 **Table 2 Maximum Allowable Noise Levels (dBA)**
24 **for Receiving Land Use Categories**

26 Effective Date	Day/Night	Industrial	Commercial	Residential
27	Day	75	67	65
28 Upon Adoption	Night	75	62	55

29
30 (4 2) A person may not cause or permit noise levels emanating from construction or
31 demolition site activities which exceed:

- 32 (a) 90 dBA during daytime hours;
- 33 (b) The levels specified in Table 2 during nighttime hours.

34 (5 3) A person may not cause or permit the emission of prominent discrete tones and
35 periodic noises which exceed a level which is 5 dBA lower than the applicable level
36 listed in Table 2.

37 (6 4) (a) A person may not cause or permit, beyond the property line of a source,
38 GROUND TRANSMITTED vibration of sufficient intensity to cause another person to
39 be aware of the vibration by such direct means as sensation of touch or visual observation
40 of moving objects. The observer shall be located at or within the property line of the
41 receiving property when vibration determinations are made.

42
43 (b) AIR TRANSMITTED SOUND THAT INDUCES VIBRATIONS SHALL
44 HAVE MAXIMUM LINEAR DECIBEL LEVELS IN THE LOWER THREE OCTAVE
45 BANDS AS EXPRESSED IN TABLE 3.

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TABLE 3

(note: the intention is to select a single option from those below, or a compromise set of level as in option E)

OPTIONS	16 HERTZ	31.5 HERTZ	63 HERTZ
A - NASA windows	59	67	74
B - NASA walls	71	77	84
C - ASHREA mod.	64	75	80
D -ASHREA - mid	74	74	79
E - suggested	63	72	77
F			
G			

(note: suggested is the average of the NASA windows and ASHREA moderate)

C B. Exemptions.

(1) The provisions of this regulation may not apply to devices used solely for the purpose of warning, protecting, or alerting the public, or some segment thereof, of the existence of an emergency situation, EXCEPT THAT EQUIPMENT AND VEHICLES EQUIPPED WITH AUDIBLE SOUND WARNING DEVICES AND ARE USED ROUTINELY AT LOCATIONS AT NIGHT WITHIN PROXIMAL LOCATIONS TO RESIDENTIAL DWELLINGS SHALL BE REQUIRED TO SWITCH TO OR EMPLOY FLASHING STROBE LIGHT WARNING DISPLAYS DURING THE NIGHT AS ALLOWED BY OSHA.

(2) The provisions of this regulation do not apply to the following:

- (a) Household tools and portable appliances in normal usage.
- (b) Lawn care and snow removal equipment (daytime only) when used and maintained in accordance with the manufacturer's specifications.
- (c) Agricultural field machinery when used and maintained in accordance with manufacturer's specifications.
- (d) Blasting operations for demolition, construction, and mining or quarrying (daytime only).
- (e) Motor vehicles on public roads.
- (f) Aircraft and related airport operations at airports licensed by the State Aviation Administration.
- (g) Boats on State waters or motor vehicles on State lands under the jurisdiction of the Department of Natural Resources.
- (h) Emergency operations.
- (i) Pile driving equipment during the daytime hours of 8 a.m. to 5 p.m.
- (j) Sound not electronically amplified created by sporting, amusement, and entertainment events and other public gatherings operating according to terms and conditions of the appropriate local jurisdictional body. This includes but is not limited to athletic contests, amusement parks, carnivals, fairgrounds, sanctioned auto racing facilities, parades, and public celebrations. This exemption only applies between the hours of 7 a.m. and 12 midnight.

1 (k) Rapid rail transit vehicles and railroads.

2 (l) Construction and repair work on public property.

3 (m) Air conditioning or heat pump equipment used to cool or heat housing on
4 residential property. For this equipment, a person may not cause or permit noise
5 levels which exceed 70 dBA for air conditioning equipment at receiving
6 residential property and 75 dBA for heat pump equipment at receiving residential
7 property.
8

9 D C. Variance Procedure.

10 (1) Any person who believes that meeting the requirements of § A, above, is not practical
11 in a particular case may request an exception to its requirements.

12 (2) Requests submitted to the Department shall be in writing and shall include evidence
13 to show that compliance is not practical.

14 (3) Upon receipt of a request for an exception, the Department shall schedule a hearing to
15 be held within 60 days.

16 (4) The applicant for the exception AT THE APPLICANT'S EXPENSE, at least 30 days
17 before the hearing date, shall advertise prominently the hearing by placing a notice in a
18 newspaper of general circulation in the subdivision in which the facility or source for
19 which the exception is sought is located. The notice shall include the name of the facility
20 or source and such additional information as the Department may require.

21 (5) Based upon evidence presented at the hearing, the Secretary may grant an exception
22 to § A, above, for a period not to exceed 5 years under terms and conditions appropriate
23 to reduce the impact of the exception.

24 (6) Exceptions shall be renewable upon receipt by the Department of evidence that
25 conditions under which the exception was originally granted have not changed
26 significantly.

27 (7) ALL COSTS ASSOCIATED WITH THE VARIANCE PROCEDURE, TO
28 INCLUDE STENOGRAPHIC SERVICES, HEARING FACILITY RENTAL,
29 DUPLICATION COSTS, MAILING COSTS, AND STAFF TIME FOR THE ACTUAL
30 PUBLIC HEARING SHALL BE REIMBURSED TO THE STATE UPON REQUEST
31 BY THE APPLICANT.
32

33 D. Measurement.

34 (1) The equipment and techniques employed in the measurement of noise levels may be
35 those recommended by the Department, which may, but need not, refer to currently
36 accepted standards or recognized organizations, including, but not limited to, the
37 American National Standards Institute (ANSI), American Society for Testing and
38 Materials (ASTM), Society of Automotive Engineers (SAE), and the United States
39 Environmental Protection Agency (EPA).

40 (2) The measurement of noise levels shall be conducted at points on or within the
41 property line of the receiving property or the boundary of a zoning district, and may be
42 conducted at any point for the determination of identity in multiple source situations.

43 (3) Sound level meters used to determine compliance with Regulation .03 shall meet or
44 exceed the specifications of the American National Standards Institute or its successor
45 bodies ANSI S1.4-1971 for Type II sound level meters.
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1 26.02.03.05

2 **.05 Penalties.**

3 A. Civil Penalty. Any person who willfully violates these regulations shall be liable to a
4 civil penalty of not more than \$10,000. Each day during which a violation continues there
5 shall be liability for a separate penalty.

6 B. Plan for Compliance. A violator who has submitted a plan for compliance with these
7 regulations and has that plan or amendments to it approved by the Secretary, upon
8 recommendation of the Department, may not be considered to be in violation of these
9 regulations as long as he acts in accordance with the original or amended plan.

10

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12 26.02.03.9999

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Administrative History

14 Effective date: August 6, 1975 (2:17 Md. R. 1189) Regulation .01A-1, W-1 adopted effective February 15, 1982 (9:3 Md. R.
15 222); repealed effective March 28, 1983 (10:6 Md. R. 558) Regulations .01 and .03A, B, D amended effective September
16 14, 1977 (4:19 Md. R. 1468) Regulation .01C amended effective March 28, 1983 (10:6 Md. R. 558) Regulations .01C, Q;
17 .02B; .03B, D amended effective February 15, 1982 (9:3 Md. R. 222) Regulation .03A amended as an emergency provision
18 effective November 13, 1979 (6:24 Md. R. 1917); emergency status expired March 29, 1980 Regulation .03A and B
19 amended effective March 28, 1983 (10:6 Md. R. 558) Regulation .04 repealed effective September 14, 1977 (4:19 Md. R.
20 1468) ——— Chapter recodified from COMAR 10.20.01 to COMAR 26.02.03

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**Statutory and Regulatory Overview
of Authority and Exemptions for Sport Shooting Facilities**

Noise Statute – Environment Article, Title 3

- Earliest cited date appears to be 1957 – not researched
- 1974 - Noise Protection Act – basic current statute
- 1982 - Legislative amendments included specific language that requires that gun clubs in existence prior to 1983 not to be prohibited in their operations – selective by county
 1. This language clearly states that State actions shall not prohibit shooting at those clubs in existence prior to 1983
 2. This could be interpreted that reasonable regulations could be applied, or variances could be given.
 3. This statute appears to nullify an earlier Attorney General's opinion that stated that shooting at gun clubs constituted a sporting event and they were therefore exempted.
- There had been no substantive amendments between 1983 and 1999 – mostly agency name changes.
- 2000 - Legislative amendment prevented Anne Arundel County from regulating gun clubs.
- 2001 – Legislative amendment would change the grandfather date from July 1, 1983 to Jan 1, 2001. The passage of this statute is the second time that the General Assembly discussed this exemption. Both the 1982 and 2001 amendments support the implication that gun clubs should not be granted the total exemption that had been granted in the 1975 regulations and supported by the 1976 Attorney General opinion.

Noise Regulations – COMAR, Title 26, Subtitle 02, Chapter 03

- Regulations established in 1975
- Amendments date from 1977, 1980, 1982, and 1983
- The exemption for sporting events appears to have been established in 1975, as confirmed by the 1976 AG opinion.
- No changes were made in the regulations to confirm the 1982 change in statute.

Legal Issues

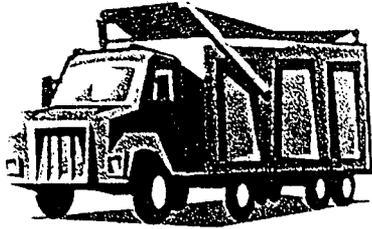
- The AG's January 1976 opinion states that the regulations intended to exempt gun clubs, other sporting events, and other events sanctioned by local permits from the regulations. The quoted testimony by a commenting federal official implies that the short duration of sporting events negates the need for their regulation. This line of reasoning apparently did not anticipate the extended operations and shooting that now occurs at commercial clubs.
- The language in the 1982 change to the statute appears to specifically prevent the State from prohibiting the operation of gun clubs in existence prior to 1983, but in so doing, clearly implies that clubs coming into existence after that date would be regulated.
- A letter written to a Queen Anne's Co. club owner in 1989 by MDE cites the 1976 AG's opinion and states that gun clubs are exempt from the regulations.
- This 1989 advice would appear to have been written without due consideration of the 1982 changes in the statute that appear to allow for the regulation of gun clubs.
- In an unofficial 1999 opinion, the statute change in 1982 negates the previous AG opinion and the previously written regulations.
- However, since the State operated under a policy of not regulating gun ranges, even after the statute changed, the statutory change was nullified. This nullification of a statute is based on a court decision regarding a tax law case where a similar continuation of a policy was ruled to invalidate a change in statute. Correction of this situation can only be accomplished through new rulemaking.
- Until that situation is clarified, MDE is forced to take actions against gun clubs under the Public Nuisance Statute (Environment Article, Title 10).
- Precedence for using the nuisance statute is found in the Carlucci case, which was successfully presented and upheld on appeal (an Anne Arundel case).
- Plaintiffs in the Deep Run Rifle and Revolver Club case were also successful under a private nuisance action.
- Private nuisance complaints by property owners moving into a community with an established gun club were eliminated by a HB 383 in 1997. This would appear to eliminate protection against increases in gun club activities (Article – Courts and Judicial Proceedings, 5-399.8).

Selective List of Maryland Shooting Facilities

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Alexander Sporting Farm	Golts	Kent County
Andrews Rod and Gun club	Clinton	Prince George's County
Anne Arundel Fish & Game Conservation	Arnold	Anne Arundel
Antietam Junior Rifle Club	Hagerstown	Washington
Associated Gun Clubs of Baltimore, Inc	Marriottsville	Baltimore County
* Baltimore County Fish & Game Club Range	Carney	Baltimore County
Big Dawg's Sporting Clays Club	Frederick	Frederick County
Bill Bliss	Laurel	Howard County
Cambridge Skeet & Gun Club	Cambridge	Dorchester County
North Carroll County Gun Club		Carroll County
* Carroll County Public Range		Carroll County
* Deep Run Rifle and Revolver Club		Carroll County
Del Mar Va Sporting Clays	Mardela Springs	Wicomico County
* Elk Neck State Park Gun Range		Cecil County
Fair's RSA Sporting Clays	Pocomoke City	Worcester County
* Fort Detrick Sporting Clays Range		Frederick County
* Frederick City Police Range		Frederick County
* Frederick County Sheriff's Range		Frederick County
* Fort Frederick State Park Gun Range		Washington County
Glenbrook Rifle Association		Montgomery County
* Glen Brook Rifle Association		Prince George's County
* Green Ridge State Park Gun Club		Allegany County
Gunsmoke Sporting Clays	Willards	Worcester County
Hopkins Game Farm	Kennedyville	Kent County
Izaak Walton League Am., Wildlife Achievement Club	Damascus	Montgomery
Izaak Walton League of America		Washington County
Izaak Walton League of Rockville		Montgomery County
* J&P Hunting Lodge	Sudlersville	Queen Anne's County
Loch Raven Skeet & Trap Club		Baltimore County
Myrtle Grove Wildlife Management	LaPlatta	Charles County
National Capital Skeet & Trap Club, Inc	Darnestown	Montgomery
* Northpeak Gun Club		
* Pintail Point Farm	Queenstown	Queen Anne's County
Potomac River Gun club	Indian Head	Charles County
Prince George's Trap Skeet Center	Glen Dale	Prince George's County
Salisbury State University	Salisbury	Wicomico County
Sanner Lake Sportsmans Club	Lexington Park	St. Mary's County
Singletree Sporting Clays	Sudlersville	Queen Anne's County
St. Charles Sportsmen's Club	Waldorf	Charles County
* Stoney Creek Gun Range		Anne Arundel County
Sudlersville Skeet Club	Sudlersville	Queen Anne's County
Sumgoose Club, Inc.	Sumner	Montgomery County
Synepuxent Rod & Gun Club	Berlin	Worcester County
Talbot Rod & Gun club	Easton	Talbot County
* Tannetown Gun Club Range - proposed		Carroll County
* W.C.I Gun Range - proposed		

* facilities investigated by MDE



N.O.I.S.E

1164

Neighbors Organized to Insure a Sound-sleeping Environment

April 30, 2001

Robin Grove, Deputy Director
MDE Technical and Regulatory Services Administration

Mr. Grove,

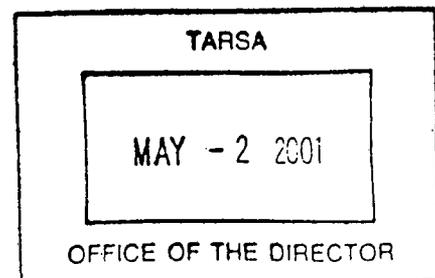
N.O.I.S.E. very much appreciated the opportunity to address the Environmental Noise Advisory Council on April 2, 2001. I hope that we succeeded in communicating the depth of our injury from toxic truck noise associate with the Rockville Quarry, and the lack of relief we observe from the leadership of Montgomery County. In the legal brief, which our attorneys previously delivered to Secretary Nishida, we more fully documented the basis for MDE intervention in a situation that clearly violates the intent of the General Assembly as expressed in the Annotated Code of Maryland, Title 3-102.

"The General Assembly finds that the people of this State have a right to an environment that is free from any noise that may jeopardize their health, general welfare or property; or degrades the quality of their lives"; and "That it is essential to have coordination and Statewide leadership of the noise control activities of the many State agencies and county and local governments."

From a distance, it is difficult for us to observe the workings of the Advisory Council and to understand what next steps are likely. We would appreciate being informed of Council activities that bear upon our concerns and we would enjoy attending future sessions that are relevant to our issues. We continue to await a substantive response from secretary Nishida to our legal challenge, and I believe that she awaits advice and counsel from your committee, so it seems that our interests are inextricably linked.

We look forward to hearing from you on behalf of the Committee.

Dan Tuten
for N.O.I.S.E.





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MARYLAND DEPARTMENT OF THE ENVIRONMENT

2500 Broening Highway • Baltimore, Maryland 21224
(410) 631-3000 • 1-800-633-6101 • <http://www.mde.state.md.us>

Parris N. Glendening
Governor

Jane T. Nishida
Secretary

May 1, 2001

The Honorable Barbara A. Hoffman
Chairman
Senate Budget and Taxation Committee
Miller Senate Office Building
Annapolis, MD

The Honorable Howard P. Rawlings
Chairman
House Appropriations Committee
Lowe House Office Building
Annapolis MD 21401-1991

RE: Noise Inspection Report

Dear Chairman Hoffman and Chairman Rawlings:

In the Joint Chairmen's Report dated April 2001, the Maryland Department of the Environment was requested "to report to the committees, by May 1, 2001, whether it possesses personnel and equipment to adequately enforce noise standards throughout the State." In order to provide the Committees with a complete and comprehensive report the department respectfully requests an extension until June 1, 2001 to submit the requested information.

Your thoughtful consideration of this matter is appreciated. I am available on (410) 631-3084 if you have any questions or require additional information.

Sincerely

Jane T. Nishida
Secretary

cc: Robin Grove
George Harman

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1 SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF
2 MARYLAND, That the Laws of Maryland read as follows:

3 Article - Environment

4 3-403.1.

5 (A) THE DEPARTMENT SHALL EMPLOY ~~THREE~~ TWO NOISE INSPECTORS TO
6 ENFORCE THE SOUND LEVEL LIMITS AND NOISE CONTROL REGULATIONS ADOPTED
7 UNDER THIS TITLE.

8 (B) A NOISE INSPECTOR EMPLOYED BY THE DEPARTMENT MAY ISSUE A CIVIL
9 CITATION TO A PERSON FOUND IN VIOLATION OF THIS TITLE OR ANY SOUND LEVEL
10 LIMIT OR NOISE CONTROL REGULATION ADOPTED UNDER THIS TITLE.

11 (C) (1) (I) A PERSON WHO VIOLATES THIS TITLE OR A REGULATION
12 ADOPTED UNDER THIS TITLE AND IS ISSUED A CIVIL CITATION UNDER SUBSECTION
13 (B) OF THIS SECTION IS SUBJECT TO A CIVIL PENALTY OF NOT MORE THAN \$500.

14 (II) THE CIVIL PENALTY UNDER THIS SUBSECTION IS IN ADDITION
15 TO PENALTIES AUTHORIZED UNDER § 3-406 OF THIS SUBTITLE.

16 (2) ANY MONEY COLLECTED UNDER THIS SUBSECTION SHALL BE
17 DEPOSITED INTO THE GENERAL FUND OF THE STATE.

18 (3) ANY PERSON ISSUED WITH A CITATION UNDER THIS SUBSECTION
19 MAY APPEAL THE CITATION TO THE OFFICE OF ADMINISTRATIVE HEARINGS IN
20 ACCORDANCE WITH § 10-205 OF THE STATE GOVERNMENT ARTICLE.

21 SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take effect
22 October 1, 2001.

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SENATE BILL 570
ENROLLED BILL

-- Economic and Environmental Affairs/Environmental Matters --

Introduced by Senators Stone and Collins

Read and Examined by Proofreaders:

Proofreader.

Proofreader.

Sealed with the Great Seal and presented to the Governor, for his approval this
____ day of _____ at _____ o'clock, ____ M.

President.

CHAPTER _____

1 AN ACT concerning

2 **Environment - Noise Inspectors**

3 FOR the purpose of requiring the Department of the Environment to employ a certain
4 number of noise inspectors to enforce certain sound level limits and noise control
5 regulations; authorizing noise inspectors to issue civil citations for certain
6 violations; establishing a maximum civil penalty that may be imposed on
7 violators who are issued certain civil citations; providing that certain civil
8 penalties are in addition to certain other penalties; and authorizing a right of
9 appeal under certain circumstances.

10 BY adding to
11 Article - Environment
12 Section 3-403.1
13 Annotated Code of Maryland
14 (1996 Replacement Volume and 2000 Supplement)

From: TOM OGLE <ENVIRON.OGLET@CO.MO.MD.US>
Date: Mon, Feb 26, 2001 11:43 AM
Subject: Pending Legislation

--- Received from ENVIRON.OGLET 240.777.7755 01-02-26 11.44

-> ENVIRON.HERBEE EDWARD R. HERBERT ENVIRON

Ed:

Thanks for taking the time to list pending State legislation that may affect our programs. This gives us the opportunity to review and consider the potential ramifications before reaction to any bill becomes time critical, as often happens as the General Assembly session proceeds towards conclusion.

In that context, I am offering some pre-emptive comment on several bills:

HB 355 Task Force to Study the Sound Barrier Policy of the SHA
HB 1212 SHA Sound Barriers - Cost Considerations

Both bills sponsored by Del. Giannetti, District 13B (Howard & Prince George's Counties). Currently before the Commerce & Governmental Matters Committee.

We should OPPOSE both of these bills without equivocation. They are both thinly veiled attempts to kill the SHA highway sound barrier program. This program has had, and will continue to have, a profound beneficial effect upon the "habitability", property values and "quality of life" of the residential communities bordering the beltway and the interstates in Montgomery County. Under SHA policy, especially in conjunction with highway improvement projects and with a reasonable percentage of County participation, properly designed barriers are particularly cost effective when compared to the benefits for the community.

HB 1211 Transportation - State Highway Construction - Sound Barriers. Sponsored by Del. Morhaim, District 11 (Baltimore County)

I have read the bill, and at first glance we could SUPPORT, WITH AMENDMENTS, because it seems to allow more local participation in barrier plan development, which would tend to complement the County Transportation Noise Policy, currently being drafted by a task force established for that purpose. However, I would like to see the SHA's response to the potential effect of this bill.

My reservations concern the bill's provision to require barriers within 500' of an "industrial, commercial or residential area, or at the request of a local government, unless the cost is too great for the need". The primary focus of highway sound barriers should be to protect residential communities. In fact, sound zoning and

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land use practices use commercial and industrial as buffers between noise sources and residential areas. Requiring barriers for these areas would provide meager benefit and siphon limited resources from the primary residential need. Moreover, in political subdivisions that do not have a comprehensive transportation noise policy (e.g., everyone but Montgomery), the wording of the bill provides the opportunity for endless wrangling and the possibility of barrier resources being expended for projects of low priority and dubious merit - in jurisdictions other than Montgomery, of course.

SB Environment - Noise Inspectors, Sponsored by Sen. Stone, President Pro Tem Emeritus, Dist. 7 (Baltimore County) and Sen. Collins, Dist. 6 (Baltimore & Harford Counties). Currently before the Economic & Environmental Affairs Committee.

We should SUPPORT this bill. Sen. Stone has consistently prodded the MDE to reactivate their Noise Control Program and fulfill their obligations under the State Environmental Noise Act of 1975. With renewed interest in noise control, many local jurisdictions are attempting to return to a place that Montgomery County never left. Any attempt to strengthen the State program will have a positive effect on Montgomery's program, insofar as public awareness will be raised and state actions and precedents will provide support to our efforts. The only AMENDMENT I would suggest is that one of the Inspector positions be changed to a program manager or administrator equivalent - either merit or contractual - with expertise and experience in noise program & policy development. Inspector positions imply a re-active, enforcement approach, which is necessary. However, a more pro-active and preventative approach could be concurrently achieved with this position tasked to provide consultative assistance to comprehensive program development in local county and municipal jurisdictions.

Thank you for your consideration. If there are any questions or inquiries regarding this matter, please do not hesitate to have the interested party contact me directly at 240.777.7755 or oglet@co.mo.md.us.