

Council Meeting of
April 1, 2008

Honorable Mayor and Members
of the City Council
City Hall
Torrance, California

Members of the City Council:

**SUBJECT: City Manager – Amendment to Torrance Municipal Code Sections
45.6.15. ELECTRIC OR BARBED WIRE FENCES
92.13.2. COMMERCIAL AND INDUSTRIAL PURPOSES**

RECOMMENDATION

Recommendation of the City Manager that the City Council adopt an Ordinance amending Sections 45.6.15 and 92.13.2 to allow for the use of electrical current in fencing to secure the parameter of industrial facilities with contiguous acreage of 300 acres or greater.

The City Manager further recommends that the City Council approve the attached summary of the Ordinance for publication.

Funding

None is required.

BACKGROUND

The Torrance Municipal Code (TMC) Sections 45.6.15 and 92.13.2 do not allow for the use of fences which are charged or chargeable with electricity. The events of September 11, 2001 have caused the Federal Government to reevaluate critical infrastructure and key resources and the methods used to secure and protect them. The Department of Homeland Security is looking forward and is studying means to secure facilities throughout the nation. As part of that review, ExxonMobil has been looking at their facilities throughout the nation to meet the goals of securing their facility as well as protecting the facility as it relates to the local population.

This review has lead the local ExxonMobil plant to request a modification to the current municipal code to allow this type of fence as a method to secure the facility, detect potential penetration into the facility and deter intruders through the use of a chargeable fence system.

ANALYSIS

The modification to TMC Section 45.6.15 and 92.13.2 is being proposed to assist in securing large facilities in Torrance. The Ordinance before you sets a specific criterion for the type of chargeable fence while allowing for the review and conditions for such a fence to be under the auspices of the Community Development Director. The limiting of such fences to land uses of 300 contiguous acres or greater is recommended as a method to offer additional protective means to facilities that due to their mass become more difficult to secure.

The modifications provided to you allow for a chargeable fence in what is called low voltage (detect) mode for the bulk of the fence operation. This mode allows for the security system to detect potential problems that can be handled by on site security with assistance, if necessary, by Torrance Police.

Utilizing declaration of security levels established by the Department of Homeland Security, or those that may be imposed by the State or City, the charge on the fence could be increased to the deter mode. This mode is designed to cause enough of a charge to the individual who is trying to gain access to the facility to be repelled from the fence. The Community Development Department will work with the applicant and other City Departments to develop the conditional allowance for the fence to be moved into deter mode.

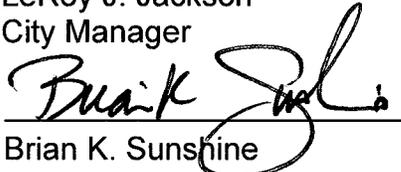
The fence charge is set at 12 volts Direct Current (DC) for low voltage (detect) mode and can be raised to 7,000 volts in deter mode. The current for the fence is sent in pulses rather than a continuous charge with the pulse lasting 300 microseconds at intervals of one and a half to ten seconds. Use of the deter mode will be established with protocols set as conditions for the installation permit, failure to follow the conditions will be grounds for permit revocation.

The criteria for use of the deter mode will be developed using the Department of Homeland Security Advisory System (Attachment C), the City of Torrance Threat Advisory System (Attachment D), or other standards as set by the State of California or the County of Los Angeles. The fence must be in low voltage mode unless the threat advisory system of the U.S. Department of Homeland Security, the State of California, the County of Los Angeles, or the City of Torrance is at a current threat level of High or Severe. In addition included as a standard condition on any permitted fence will be the requirement for notification to the City of Torrance Police Department and Fire Department thirty minutes prior to the voltage being increased from the standard low voltage (detect) mode and when it is brought back down to the low voltage (detect) mode. Staff will also build in testing language to allow for checking the fence on a monthly basis. This will include having the segments being tested having staff on site at that area as well as notification of the testing and voltage increase, if needed, to the City of Torrance.

The request before you this evening is a change in how large land masses with critical infrastructure are secured. This type of change is in line with the City's overall mission for emergency preparedness and the ability to protect our citizens.

Respectfully submitted,

LeRoy J. Jackson
City Manager

By 
Brian K. Sunshine
Assistant to the City Manager

CONCUR:


Jeff Gibson
Community Development Director


LeROY J. JACKSON
City Manager

Attachments:

- A. Ordinance
- B. Ordinance summary
- C. Homeland Security Advisory Levels
- D. City of Torrance Threat Advisory System
- E. PowerFence Information

ORDINANCE NO. _____**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY
OF TORRANCE AMENDING SECTIONS OF THE
TORRANCE MUNICIPAL CODE RELATING TO
ELECTRIC FENCES**

The City Council of the City of Torrance does ordain as follows:

SECTION 1

Sections 45.6.15 and 92.13.2 of the Torrance Municipal Code are repealed.

SECTION 2

A new Section 45.6.15 of the Torrance Municipal Code is added, to read in its entirety as follows:

“SECTION 45.6.15. ELECTRIC OR BARBED WIRE FENCES.

- a) It shall be unlawful for any person to construct, erect or locate in the City or have on his premises, a fence which is charged or chargeable with electricity, unless permitted by the Community Development Director, as provided for in Section 92.13.2(c).
- b) It shall be unlawful for any person to construct, erect or locate in the City or have on his premises a barbed wire fence; provided, however, that barbed wire may be placed on top of a fence, other than on a lot used for residential purposes, which is at least sixty inches high.”

SECTION 3

A new Section 92.13.2 of the Torrance Municipal code is added, to read in its entirety as follows:

“SECTION 92.13.2. COMMERCIAL AND INDUSTRIAL PURPOSES.

The following provisions shall apply to all land used for commercial and industrial purposes.

- a) No fence or wall three feet or greater in height shall be constructed without first obtaining a building permit;
- b) No metal fence or wall shall be permitted except when constructed of chain link, open smooth wire, ornamental wrought iron, decorative metal beams or decorative panels;
- c) No fence shall be constructed which is charged or chargeable with electricity, except that Community Development Director may permit a fence charged or chargeable by electricity upon a determination that the fence meets the following requirements:

- 1) The property on which the fence is constructed, erected or located, is a critical infrastructure, a key resource, a high security risk, or a terrorist target as determined by the federal, state, or local government.
 - 2) The property on which the fence is constructed, erected or located is a minimum of 300 contiguous acres.
 - 3) Any contrivance or mechanism to control electrical current in such fences shall be listed by an approved testing laboratory, and shall include a suitable interrupting device and such other safety devices to prevent dangerous currents getting on the fence at any time.
 - 4) The fence, energizer components, electrical controller, system design and installation must meet or exceed the standards or specifications of the International Electrotechnical Commission or any later adopted standards published by the Underwriters Laboratories, National Electrical Code of the National Fire Protection Association, or the California Electrical Code.
 - 5) Any fence must be posted with warning signs containing the following or similar wording: "DANGER," "CAUTION" or "WARNING" and the words "ELECTRIC FENCE." or "HIGH VOLTAGE." The signs must include the international warning symbol for risk of electric shock or high voltage, which is a lightning bolt inside a triangle (ISO 3864). Further, the sign must contain the warning symbol for an electric fence, which is a hand touching a wire or wires with three lightning bolts coming out from where the hand is touching the wire or wires (IEC 1818/05). The signs must be yellow with black inscription and the letters must be at least two inches high. The signs must be at least 8 inches by 4 inches. The signs must be posted along any such fence at intervals of not more than twenty five feet. The signs must be viewable from both sides of the fence.
 - 6) Any fence charged or chargeable by electricity must not exceed twelve feet in height.
 - 7) Any fence charged or chargeable by electricity must be located inside an exterior perimeter fence that is at least 6 feet in height and is not charged or chargeable by electricity.
 - 8) The fence must be in low voltage mode unless the security advisory system or threat advisory system of the U.S. Department of Homeland Security, the State of California, the County of Los Angeles, or the City of Torrance is at a current threat level of High or Severe.
 - 9) Any fence charged or chargeable by electricity must use a pulsed DC current with a maximum of 35 milliamperes per pulse, each pulse must last no longer than 300 microseconds, and with a minimum interval of 1.5 seconds between pulses.
 - 10) The Community Development Director may impose conditions as may be deemed desirable and necessary to effectuate the purposes of this Division, to protect the public health, safety, and welfare, and to mitigate project-related adverse impacts.
- d) No fence, wall or hedge shall exceed eight feet in height, except as permitted by the Community Development Director in subsection (c);
- e) No barbed wire fence shall be constructed, provided, however, that barbed wire may be placed above a fence that is at least five feet in height."

SECTION 4

Any inconsistent provisions of the Torrance Municipal Code, or any other inconsistent ordinances of the City, are repealed, to the extent of the inconsistencies.

SECTION 5

If any section, subsection, sentence, clause, phrase, or portion of this Ordinance is for any reason deemed or held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision will not affect the validity of the remaining portion of this Ordinance. The City Council of the City of Torrance hereby declares that it would have adopted this Ordinance and each section, subsection, sentence, clause, phrase, or portion thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, phrases, or other portions might subsequently be declared invalid or unconstitutional.

SECTION 6

This ordinance will take effect thirty days after the date of its adoption. Within fifteen days following adoption, this ordinance or a summary of this ordinance, if authorized by the City Council, will be published at least once in the Daily Breeze, a newspaper of general circulation, published and circulated in the City of Torrance.

INTRODUCED AND APPROVED this ____ day of _____, 2008.

ADOPTED and PASSED this ____ day of _____, 2008.

Mayor of the City of Torrance

ATTEST:

Sue Herbers, City Clerk

APPROVED AS TO FORM:

John L. Fellows III
City Attorney

By: _____
Ronald T. Pohl
Assistant City Attorney

ORDINANCE NO. _____

SUMMARY

On _____, the City Council of the City of Torrance adopted Ordinance No. ____ a new ordinance relating to electric fences.

The Ordinance modifies Section 45.6.15(a) by providing that it is unlawful for any person to construct, erect or locate in the City or have on their premises, a fence that is chargeable with electricity, unless permitted by the Community Development Director, as provided in Section 92.13.2(c). The Ordinance readopts Section 45.6.15(b).

The Ordinance readopts Section 92.13.2(a), (b), and (e).

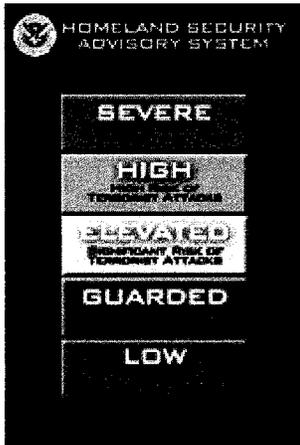
The Ordinance modifies Section 92.13.2(c) by providing that the Community Development Director may permit a fence charged or chargeable by electricity upon a determination that the following requirements are met: (1) The property on which the fence is constructed, erected or located, is a critical infrastructure, a key resource, a high security risk, or a terrorist target as determined by the federal, state, or local government. (2) The property on which the fence is constructed, erected or located is a minimum of 300 contiguous acres. (3) Any contrivance or mechanism to control electrical current in such fences shall be listed by an approved testing laboratory, and shall include a suitable interrupting device and such other safety devices to prevent dangerous currents getting on the fence at any time. (4) The fence, energizer components, electrical controller, system design and installation must meet or exceed the standards or specifications of the International Electrotechnical Commission or any later adopted standards published by the Underwriters Laboratories, National Electrical Code of the National Fire Protection Association or the California Electrical Code. (5) Specific warning signs, with required language and symbols, must be placed on the fence at a minimum of every twenty five feet. (6) Any fence charged or chargeable by electricity shall not exceed twelve feet in height. (7) Any fence charged or chargeable by electricity must be located inside an exterior perimeter fence that is at least 6 feet in height and not charged or chargeable by electricity. (8) Any fence charged or chargeable by electricity must use a pulsed DC current with a maximum of 35 milliamperes per pulse, each pulse must last no longer than 300 microseconds, and with a minimum interval of 1.5 seconds between pulses. (9) The Community Development Director may impose conditions as may be deemed desirable and necessary to effectuate the purposes of this Division, to protect the public health, safety, and welfare, and to mitigate project-related adverse impacts.

The Ordinance modifies Section 92.13.2(d) by providing that no fence, wall or hedge shall exceed eight feet in height, except as permitted by the Community Development Director in subsection 92.13.2(c).

*****City Clerk to add a paragraph stating that copies of the ordinance are available at the City Clerk's office and stating the names of the City Council members that voted in favor and those that voted against.*****



Homeland Security Advisory System



Current Threat Level

March 27, 2008 — The United States government's national threat level is **Elevated**, or **Yellow**.

The U.S. threat level is **High**, or **Orange**, for all domestic and international flights. Only small amounts of liquids, aerosols and gels are allowed in carry-on baggage. See the [Transportation Security Administration \(TSA\) website](#) for up-to-date information on items permitted and prohibited on airlines.

We are mindful of the recent tapes and propaganda messages allegedly from Al Qaeda regarding increased attacks. At this time there is no credible information warning of an imminent, specific threat to the homeland.

Recommended Activities

- All Americans should continue to be vigilant, take notice of their surroundings, and report suspicious items or activities to local authorities immediately.
- Everyone should establish an [emergency preparedness kit](#) and [emergency plan](#) for themselves and their family, and stay informed about what to do during an emergency.

Learn More About Preparedness

- [Visit www.ready.gov](http://www.ready.gov)

About the Homeland Security Advisory System

The Homeland Security Advisory System is designed to guide our protective measures when specific information to a particular sector or geographic region is received. It combines threat information with vulnerability assessments and provides communications to public safety officials and the public.

- **Homeland Security Threat Advisories** contain actionable information about an incident involving, or a threat targeting, critical national networks or infrastructures or key assets. They could, for example, relay newly developed procedures that, when implemented, would significantly improve security or protection. They could also suggest a change in readiness posture, protective actions, or response. This category includes products formerly named alerts, advisories, and sector notifications. Advisories are targeted to Federal, state, and local governments, private sector organizations, and international partners.

- **Homeland Security Information Bulletins** communicate information of interest to the nation's critical infrastructures that do not meet the timeliness, specificity, or significance thresholds of warning messages. Such information may include statistical reports, periodic summaries, incident response or reporting guidelines, common vulnerabilities and patches, and configuration standards or tools. It also may include preliminary requests for information. Bulletins are targeted to Federal, state, and local governments, private sector organizations, and international partners.
- **Color-coded Threat Level System** is used to communicate with public safety officials and the public at-large through a threat-based, color-coded system so that protective measures can be implemented to reduce the likelihood or impact of an attack. Raising the threat condition has economic, physical, and psychological effects on the nation; so, the Homeland Security Advisory System can place specific geographic regions or industry sectors on a higher alert status than other regions or industries, based on specific threat information.

This system was established in Homeland Security Presidential Directive 3.

This page was last reviewed/modified on March 27, 2008.

Attachment D

Quick Links



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Disaster Preparedness : Threat Advisory System

Disaster Preparedness

Disaster Preparedness

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- Threat Advisory System
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Threat Advisory System

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The City of Torrance has adopted the following color-coded threat advisory system. The system is based, in general, upon the Federal system outlined by the Office of Homeland Security. The level of threat is gauged upon the risk to the City of Torrance or an area geographically close to the City that would have a direct affect on the City's ability to provide service to the Community. It is the responsibility of the Emergency Services Director (City Manager) to identify the current threat level for the City of Torrance.

SEVERE
Specific Localized Threat

HIGH
Imminent Threat

ELEVATED
General Threat

GUARDED
Heightened Concern

LOW
Normal/Routine Levels

The City of Torrance current threat level is:

GUARDED
Heightened Concern

Note: The City's level of threat may be different than the County at any given time. For example, the City may be Green, indicating that we are in routine operations, with a low risk of a possible emergency; however, the County given its broader geographic area and facilities, may be Blue. This does not signify a lack of coordination.

LOW
Normal/Routine Levels

LOW CONDITION (Normal/Routine Levels)

There is a low risk of a possible disaster or emergency. The following steps should be applied:

- Continuously review and update City and Department emergency plans.
- Ensure training for response to all emergencies is current and on-going.
- Regularly assess facilities for vulnerabilities and take appropriate measures to reduce risks.

GUARDED
Heightened Concern

GUARDED CONDITION (Heightened Concern)

There is a general risk of a possible disaster or emergency. In addition to the previously outlined steps the following additional measures may be applied:

- Check all emergency communications systems.
- Review and update emergency response procedures for specific hazards.
- Provide the public and City employees with necessary information.

ELEVATED
General Threat**ELEVATED CONDITION** (*General Threat*)

There is a significant risk of a possible disaster or emergency. In addition to the previously outlined steps, the following additional measures may be applied:

- Increase surveillance/checking of critical locations.
- Coordinate emergency plans with nearby jurisdictions.
- Assess further steps needed to respond to the current hazard within the context of the current threat and information.
- Implement, as appropriate, contingency and emergency response plans.
- Consider alerting City EOC staff.
- Consider activating City EOC.

HIGH
Imminent Threat**HIGH CONDITION** (*Imminent Threat*)

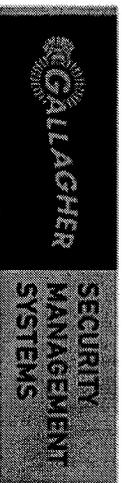
There is a high risk of a possible disaster or emergency. In addition to the previously outlined steps, the following additional measures may be applied:

- Coordinate necessary security efforts with local or County law enforcement agencies and other public safety organizations.
- Take additional precaution at public events.
- Prepare to work at alternate sites or with minimized and/or dispersed workforce.
- Restrict access to essential personnel at governmental facilities.
- Activate the City EOC.

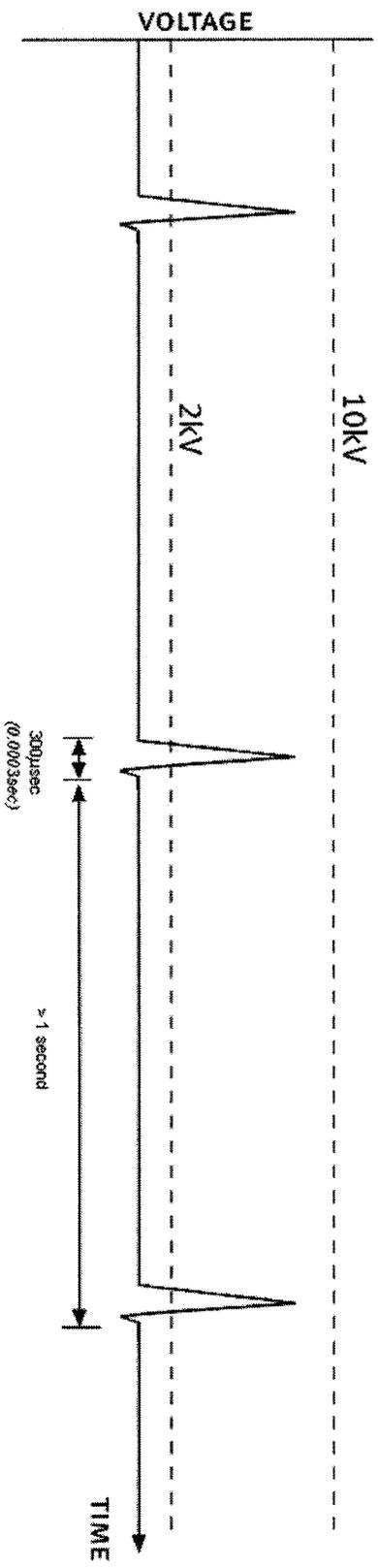
SEVERE
Specific Localized Threat**SEVERE CONDITION** (*Specific Localized Threat*)

There is a severe risk of a disaster or emergency. In addition to the previously outlined steps, the following additional measures may be applied:

- Assign emergency response personnel and pre-position specially trained personnel.
- Consider closing non-essential public and government facilities.
- Increase or redirect personnel to address critical emergency needs.



Put your finger on the 'Pulse'



Shock is all about "energy"

How an Alarm is Generated

An alarm is created if the voltages of the electric fence pulse at the measurement point become **higher** than the maximum voltage threshold or **lower** than the minimum voltage threshold for a minimum of three pulses* in a row.

* Some units have the ability to control pulse count thresholds



PowerFence™ Q&A



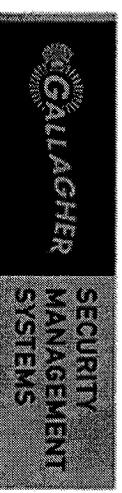
PowerFence™ Questions & Answers:

Question: Is the system safe?

Answer: Yes, the energiser components, system design and installation comply with product standards (IEC 60335-2-76) and our own code of practice.

Question: What is IEC 60335-2-76?

Answer: IEC 60335-2-76 is the International Standard for Electric Fence energisers and their safe application. Most countries have adopted this standard globally.



Question: What are the basic requirements of IEC 60335-2-76?

Answer: The maximum energy that can be produced by the security system energiser is limited by design to a maximum energy output. The energiser is designed and required to comply with this output even under abnormal operating conditions such as component failure. The overall system is specified with due consideration given to the duty of care and safety. This includes clearances, numbers of wires, the use of warning signs etc.

Question: Are Gallagher energisers as used within the Power Fencing security units tested compliant with IEC 60335-2-76?

Answer: Yes KEMA in Holland have independently tested the energisers and issued certificates of their compliance.



Question: What makes a PowerFence™ system different to other perimeter security systems?

Answer:

- It actively DETERS intruders with the pulse and is also a psychological barrier.
- It DETECTS a serious intrusion attempt (failed attempts do not require detection or response).
- It activates an alarm for response if the fence is damaged.

Question: What happens if a child or elderly person comes into contact with the PowerFence™ system?

Answer: In accordance with the Gallagher Security Code of Practice and Minimum Quality Standards, all systems are designed and installed to minimise the risk of accidental contact.



Question: What are Gallagher Code of Practice and Minimum Quality Standards?

Answer: All GSMS Accredited Dealers have an agreement in which they commit only to design, install and maintain PowerFence™ systems in accordance with Gallagher Code of Practice and Minimum Quality Standards. The Gallagher standards meet and exceed the requirements of all National and International standards regarding safety and the application of Electric Fence systems.

Question: How does Gallagher ensure that their Code of Practice and Minimum Quality Standards are complied with?

Answer: Gallagher inspect installations and providing the installation meets all quality standards and Codes of Practice, will issue a certificate of compliance.