From: Granite Island Group
James M. Atkinson, (978) 546-3803 v

To: Canton Police Department
Jim Quigley, (781) 828-1214 v, (781) 757-6578 f

Re: Matthew L. Israel
DBA: Judge Rotenberg Educational Center (JREC)
DBA: Behavior Research Institute (BRI)
DBA: The Walden Educational Center, Inc. (WEC)

Re: Violations of:
Massachusetts General Laws, Chapter 140, Section 131J.
Sales or Possession of Electrical Weapons.

Massachusetts General Laws, Chapter 111, Section 72F
Patient Abuse Statute

Code of Massachusetts Regulations, Chapter 105, Section 155
Department of Public Health, Patient Abuse and Prevention Reporting regulations

Code of Massachusetts Regulations, Chapter 118, Section 2
Disabled Persons Protection Commission regulations

Code of Massachusetts Regulations, Chapter 115, Section 5.05
Department of Mental Retardation regulations

Background: My name is James M. Atkinson, and I am the President and Senior Engineer of Granite Island Group located in Gloucester, MA, which is a small veteran owned company that since 1987 has specialized in the field of electronics and communications engineering. We have special capability involving the protection of classified, confidential, privileged, or private information against technical attack, eavesdropping, or exploitation.

I have attended extensive private and government sponsored electronics, tactical, intelligence, and security training both in the United States and abroad. I have over 30 years of government and private sector experience. I have been extensively published on these subject matters, and have authored materials that have affected national policy. Further, I have testified before Congress three times on subjects within my area of expertise, and have been consulted multiple times by the Military, and the Executive branch.

I also have extensive training in tactical operations, including Instructor and Master Instructor certifications. I am also trained in the use of Straight/Expandable and Riot Baton, Taser, Stun Belts, Chemical Weapons, Non Lethal Use of Force, Specialty Impact

Munitions, Riot Control, Vehicle Operations, and related tactical subjects. I am graduate of multiple executive protection, tactical driving, police vehicle operations, SWAT/SRT, and special operations and counter-terrorism programs. I am also a factory trained and certified armorer on multiple military and police weapons systems, and hold an expert marksman's rating with many of those systems. I have been trained in the manufacture, design and usage of chemical and electrical weapons to include stun shields, stun batons, stun belts, electrical crowd control devices, and related products and tactics.

I believe that I am in the unique position to act as an independent and disinterested party, and "honest broker". I have not been involved with any of the people in the organizations in question in any fashion, and have nothing to gain, or to lose by bringing this matter to your attention. Rather, because of my education, training and background I am able to see though the public relations hype of the JREC/BRI organization and identify specific and significant criminal activities in a completely impartial manner. Further, I can see through the cloud of pubic relations hype, psycho-babble, and Harvard degrees which the JREC/BRI organization has successfully used to date for confuse the issues and to confound previous investigators.

History of Issue: Several weeks ago I watched a report on the local TV news regarding the "Judge Rotenberg Educational Center" in Canton, MA who was using illegal electrical weapons to punish and torture students, and who had been recently tricked into tying a student down and then shocking the student 77 times with an electrical torture device, and that these punishments were doled out on a regular basis so that staff did not think it odd when they were instructed to administer such punishments.

In the media reports there was mention that these students had receive skin burns from the devices used to punish them, and I knew that from my own education, training, and background as an electronics engineer that this type of injury could only result from the electrical signal used for these shocking having certain technical characteristics high amperage), and that a device with these characteristics is considered by Massachusetts law to be an "illegal electrical weapon".

I also noted that the size of the device described in the media and shown in pictures would be too large for administering minor to mild shocks as JREC was claiming, but rather these unit were large enough to be used as torture devices, and capable of inflicting a level of pain that could result in irreparable neurological damage, could cause serious burns, and which could result in death.

Electrical devices of this nature are illegal in Massachusetts, and that electrical products such as Tasers, Stun Guns, Stun Batons, Shocking Briefcases, and similar devices are expressly illegal, and cannot be manufactured, sold, advertised, possessed or used by any member of the public.

Scope of the Technical Violation: OSHA regulations (see attachments), numerous military standards, NIH standards, Red Cross first aid protocols, and paramedic and

medical protocols all indicate that a 3-5 mA shock causes the perception of pain on par with a bee sting, or a pin prick. Most “stun belts” used in the correctional and law enforcement community for prisoner control utilize a mild 3-4 mA shock across the pelvis (just below the kidneys) as a painful warning and disabling shock, and that these same stun belts rarely administer a shock that exceeds 4-6 mA even in the most forceful control of a dangerous prisoner (the product used by the U.S. Marshall Service uses 4-6 mA). First-degree burns are possible at this level, although they will not be severe nor last for more then a few hours.

However, these same OSHA standards indicate that a shock of 6-30 mA is a “Painful Shock” which will result in the loss of muscular control, or what is called a “freezing current” where someone cannot let go of the wire or where they will go into an uncontrollable spasm. The threshold of 6 mA that a portable electrical device is considered by Massachusetts Law to be an electrical weapon by virtue of it being capable to temporarily incapacitate due to a loss of muscular control. This issue of 6mA is a critical element of Massachusetts Law being violated, although given the amperage of several prisoner stun belts it could be considered that anything exceeding 2.9 mA is a violation of Chapter 140, Section 131J.

Currents between 50-150 mA can cause extreme pain, which is on par with having a layer of flesh flayed off, death is possible, temporary respiratory arrest is likely (on par with being punched or kicked in the stomach), and that the muscle contractions are involved to a level that there will be short term muscle injury and likely long term neurological injury. Serious second-degree burns with blisters are likely at this level if the shock is sustained or repeated, and medical intervention is usually required.

The maximum human pain threshold is between 100-300 mA as the neurological systems capable of sensing pain are destroyed or burned out at this point, and the long nerves of the body suffer irreversible damage at these levels, and that pain felt at these levels are from the seizing of the muscles and not from stimulation of the nerve endings after several seconds of shock. At these current levels that death is likely due to damage to the heart, and the possible death due to the victims inability to continue breathing. Severe muscle sprains occur at these levels, where the muscle tissue will tear themselves apart, and will start to separate from the bone.

At 1000 – 4300 mA ventricular fibrillation occurs where the heart shuts down, major irreversible nerve damage occurs, death is almost certain, and that likelihood of recovering from such a shock is quite grim.

Cardiac arrest occurs above 4300-10000 mA, that death is normal, and that severe, deep third burn will results involving not only the skin and but also of internal organs.

The “Argentine picana electrica” was designed around 1932 as a device to torture and interrogate prisoners in South America, and that at the time a shock of normally less then 3-5 mA was used to inflict substantial pain on the victim, but the output these systems could be increased to inflict 30-100 mA thus causing extreme pain and burned skin.

These picana being used for torture increased during the 50's, 60's, and 70's in Cuba, Uruguay, Paraguay and Bolivia as well as in Chinese Conscript labor camps, and Soviet Gulags and evolved into a handheld, or quasi hand-held device that delivered of painful shock of between 30 and 50 mA as a means of torture and corporal punishment.

Amnesty International is a international human rights organization, and that they have decried the use of such devices as being implements of torture, especially in cases where the power output is more than 3 mA. According the Amnesty International documents, the use of a stun belt, even when not activated, constitutes "cruel, inhuman or degrading treatment or punishment as outlawed under international law." The threat alone that a severe shock can be administered at any moment resulting in the humiliating loss of control of bodily functions, makes this an instrument of terror as well as torture.

A manufacture of stun belts called "Stun Tech" concurs in their marketing materials stating, "After all if you are wearing a contraption around your waist that by the mere push of a button in someone else's hand, could make you defecate or urinate yourself, what would you do from the psychological standpoint?"

As the amperage or voltages of one of these devices doubles, the amount of pain inflicted increases by a factor of four-fold, so that a 2 mA shock is four times as painful then a 1 mA shock, and a 4 mA shock is 16 times more painful then a 1 mA shock. The violence of a muscle contraction also follows a similar reaction where the spasm will increase by a factor of four as the amperage merely doubles. While a 100 mA shock is 100 times the current, it is in fact an increase in pain inflicted by approximately 1,600,000 percent.

I performed a search of public records and found that the "Judge Rotenberg Educational Center" was previously known by the name of "Behavioral Research Institute" which was founded in March 30, 1971, but shutdown by the Commonwealth of Massachusetts in 1978. I found that they revived the organization in 1986 (after killing a patient and as a result being sued in1985), and changed their name in 1994 after an extended legal battle over torturing and abusing their "students" in Massachusetts. Shortly after this name change in 1994, Matthew L. Israel set up a new organization by the name of "Walden Educational Center, Inc.".

I then performed a search on the Food and Drug Administration databases to determine if the device they are using is actually an "approved for use as a medical device", and discovered that while the organization APPLIED for registration the device itself was never actually granted approval by the FDA as a medical device. Please refer to the attachments to this document.

A search of the U.S. Patent and Trademark Databases indicates that Matthew L. Israel was granted a patent for a device and process used to delivery a shock, and to apply corporal punishment. I noted that within the patent application there is a significant technical error where skin impedance is claimed to be 45-55 kilo-ohms, and that this would result in a shock that was merely 4.1 to 7.9 mA.

Despite this technical error in the patent application, the JREC claims that the current levels range from 4.1 to 7.9 mA which exceeds the threshold of what Massachusetts considers to be an electrical weapon. I noted in white papers later published by JREC (see attachments) that this technical error in the patent was changed to reflect significant higher current levels, and during an un-announced inspection by the State of New York that astronomically higher levels were documented. The misstating of the currents within the patent was a deliberate attempted by Mr. Israel and his organization to conceal the pain and severe injury actually being inflicted, and an attempt to subvert state law in regards to electrical weapons.

Also of note is that normal skin impedance of a human varies with age, race, and gender, and with location of the body. For example, the impedance of the skin of the foot is significantly different to the impedance present at the small of the back, the arms, and the thighs. With the overall body as having a skin impedance of between 80 to 135 ohms to as high at 5,000 ohms, resulting in a shock of 40 mA to almost 100 mA based on the schematics and diagrams found in their initial patent. A voltage applied to the heel of the foot will result is less severe of a shock then one applied to the thighs, and a voltage applied to the small of the back or upper torso will result in a shock that is more severe then one applied to the thighs.

Either way, the device as described in the attached Patent 5,304,211 dated April 1994 describes a device in claim #11 as being in violation of state law, even if the device operates as the JREF claims, within the skin impedance, which the inventor incorrectly claims.

Further, I noted that the patent application specifically states that his device is to be used on “patients”, and that the words inmate, students, residents, or other euphuisms are not used. With this in mind it is obvious that the intention of this device as described in the patent is to torture medical patients through the use of electrical shocks

The wireless control system or remote control described in the patent uses an 8 bit or 16 bit addressing sequence. An 8 bit system would provide the capability of addressing only 256 stun belts, whereas the 16 bit design would allow 32,768 devices. The problem with the receiver module listed in the patent and the frequencies of operation use the same frequencies and coding as common garage door openers, wireless thermometers, car alarms, and other consumer devices, and would be extremely susceptible in interference and false signally so that patients are receiving shocks on a arbitrary basis merely because someone 300 feet away has a car alarm or used a garage door opener on a same or nearby frequency. My professional opinion of these of transmitter and receiver systems of this nature is that they fail several times a day due to interference, and poor, or shoddy design and as a result, this design will result in several random shocks per day.

There are products available, which are designed to “roll” garage door openers and try all possible combinations in order to open a remote control garage door. I also know that there are devices available to the public that will can for codes and are sold as a universal garage door opener allowing garage door openers or other remote control devices to be

cloned. I also know that most of these device operate on frequency bands assigned to military aircraft, and that there is a chronic problem with military aircraft interfering with garage door openers an other consumer systems within the band.

On review of one of the white papers published by JREC (see attached) there is mention that they have switched from the Linear Corporation transmitters listed in the patent to a transmitter sold by SECO-LARM for use as an automotive alarm system which operates at a frequency of 315 MHz.

A very simple device can be fabricated which will allow the activation of every electrical weapon (or "Graduated Electronic Decelerator" as it is called) within several thousand feet, which would allow someone outside of any of the JREC facilities to remotely shock all patients thousands of times, all at once or on a random basis. There is no mechanism within the design of these units to prevent this from happening.

I observed in the design outlined in the patent, and in other descriptions that this design lacks any kind of a failsafe circuit in that there is no two way mechanism for the stun belt/GED to confirm the operators intention to deliver a shock, and that the system lacks any technical mechanism to log that a shock has been delivered to a patient. With this in mind it is quite possible that tens of thousands of shocks have been accidentally delivered to patients, and that there is no record or log of these shocks being inflicted.

I have exhaustively checked the databases of the FCC and discovered that this device has never been submitted to the FCC for mandatory approval, and that they lack an FCCID number and have never applied for such registration, and that it is a violation of federal law to manufacture, sell, distribute, or use these devices. These FCCID numbers are obtained from a Form 731, and by the manufacture submitting detailed technical reports to ensure that the device will not be subject to interference, and that it will not interfere with other communications systems. According to my research neither JREC, nor Walden, nor BRI, nor any of the principals involved have every applied for any kind of FCC approvals.

Further, the receiver modules have note been subjected to a susceptibility study to ensure that the receiver modules can not be accidentally initiated, or that they are susceptible to accidental interference by other radio sources such as that created by local FM radio stations, wireless thermometers, car alarms, two way radios, cellular telephones, and so forth.

I should also point out that the "Enforcer" modules made by SECO-LARM that JREC seem to be using in their device is a module taken out of cheap car alarms made in Tawain, and they have never been approved as a medical devices, and they are highly prone to false activations. These raw modules are actually made for SECO-LARM by Superior Electronics Corporation, No 10, Lane 31, Chungteh Street Taipei, Taiwan and are not themselves approved for sale or use in the United States.

Additionally, the 240 Turnpike St., Canton, MA location lacks any kind of site license to use these transmitters, nor to use any of the frequencies listed in the patent application, or those frequencies listed by Linear Corporation or Seco-Larm for their remote control transmitters. The manuals for the transmitter and receiver modules utilized in the device actually list a warnings in regards to interference from outside sources as follows (note the second warning:

> This device complies with FCC Rules Part 15.
> Operation is subject to the following two conditions: (1)
> This device may not cause harmful interference and
> (2) this device must accept any interference that may
> be received, including interference that may cause
> undesired operation.

Within the patent there are multiple admissions that the device is likely to inflict injury onto the patients skin, and I know from my own training, education, and background that these injuries would likely in the form of second degree burns resulting in blisters and ulcers forming on the skin (which can only happen at higher amperages).

Attached please find several relevant articles, which have appeared in the media which will support my position that Mathew Israel, and his staff at JREC/BRI is illegally manufacturing and possessing electrical weapons which are being used on patients.

In the following articles published in various forums, and published on the JREC website the author Matthew L. Israel clearly admits to using the original GED to inflict shocks of at least 13 mA, which is well in excess of 6 mA. Further, the paper describes a GED-4 model, which increases this to 26 mA, but careful analysis of the parameters listed in paper reveal that the shock is actually close to 98.8 mA.

I would draw your attention to the recent report attached to this document which was the result of a New York State inspection of the facility in Canton where the inspectors discovered average intensity of 15.25 milliamperes and an average peak of 30.5 milliamperes. However, they discovered that the GED-4 was applying a shock with a maximum current of 45.0 milliamperes, an average peak of 91 milliamperes (mA), and a maximum duration of 2 seconds.

These significantly higher current levels discovered by the NYS inspectors reflect that JREC has been lying about the technical characteristics of their devices.

This extremely high voltage and current levels are not only sadistic and un-needed, but they also risk killing the patients on which they are used. The pain involved in a 45 to 91 mA shock for two seconds would be akin to taking a cheese grater to the flesh of the patient for two second and flaying off several layers of skin.

The JREC/BRI organization is essentially a massive money machine for Mathew L. Israel where his organization is paid 56 million dollars per year to warehouse patients shipped in from other states that should be receiving medical treatment, but instead are having illegal torture devices strapped to their body and having the flesh burned off their

bodies. Patients have been killed by the organization, and it is likely that they will kill and abuse others in the name of profits.

Children and handicapped patients are being shipping to Massachusetts for the express purpose of physical and psychological abuse and torture.

I request that your office initiate a criminal investigation into the possession and use of these illegal electrical weapons, and that you consider obtaining a court order to search out and seize all of these illegal devices and related documents in the possession of the organization. I also encourage you to work with your local District Attorney to obtain an emergency restraining order against the organization to stop them from using this or any similar device on helpless patients.

You can reach me at my office during regular business hours from 8:00 AM until 4:00 PM at 978) 546-3803, and I would be happy to further assist your agency in regards to this matter in any fashion.

James M. Atkinson

Attachments A - K

ATTACHMENTS

Attachment A

United States Patent 5,304,211
Israel , et al. April 19, 1994

Apparatus for administering electrical aversive stimulus and associated method

Abstract

An apparatus for administering electrical aversive stimulus is provided. The apparatus includes a remote transmitter, a receiver/stimulator, and an electrode. The receiver/stimulator is activated by an electromagnetic signal generated by the transmitter. In response, the receiver/stimulator generates an electrical stimulus pulse which is administered to the individual through the electrode. The receiver/stimulator and electrode are worn by the individual. Stimulation indicator means on the receiver/stimulator provides a positive indication that the stimulation has been administered to the individual. Various characteristics of the electrical stimulus pulse may be adjusted to vary the individual's perceived averseness of the stimulus. A method of treatment utilizing the apparatus of this invention is also provided.

Inventors: Israel; Matthew L. (Newton, MA), Marsh; David (Harmony, RI)
Assignee: Behavior Research Institute (Providence, RI)

Appl. No.: 07/796,713
Filed: November 25, 1991

Current U.S. Class: 607/58 ; 119/908; 361/232; 607/72
Current International Class: A01K 15/00 (20060101); A01K 15/02 (20060101); A61N 1/38 (20060101); A61N 001/08 (); A61N 001/38 ()
Field of Search: 128/903,419R,421,848,419S 361/232 119/29

References Cited [Referenced By]

U.S. Patent Documents

2800104 July 1957 Cameron et al.
3478344 November 1969 Schwitzgebel et al.
3589337 June 1971 Doss
3868545 February 1975 Caron
3885576 May 1975 Symmes
3998209 December 1976 Macvaugh
4202293 May 1980 Gonda et al.
4440160 April 1984 Fischell et al.
4943885 July 1990 Willoughby et al.
5054428 October 1991 Farkus

Other References
Webber, "A Simple Battery-Powered Stimulator for Aversion Therapy," Med. & Biol. Eng., vol. 6, pp. 445-446, Feb. 1968. .

Ali et al., "Instr. & Techniques: A Self-contained, Regulated, Burst-firing Constant-current AC Shock Gen.," Behav. Research, vol. 9, pp. 326-333, Aug. 1977. .
Farrall Instruments, Inc., "Instructions for Whistle Stop Wireless Stimulator," (Grand Island, Nebr., 1978). .
Human Technologies, Inc., "SIBIS" (St. Petersburg, Fla. 1989). .
T. Linscheid, et al., "Clinical Evaluation of the Self-Injurious Behavior Inhibiting System (SIBIS)," Journal of Applied Behavior Analysis, No. 1 pp. 53-78 (Ann Arbour, Mich. Spring 1990)..
Primary Examiner: Howell; Kyle L.
Assistant Examiner: Schaetzle; Kennedy J.
Attorney, Agent or Firm: Silverman; Arnold B. Stacey; George K.

Claims

What is claimed is:

1. Apparatus for administering electrical aversive stimulus to an individual, comprising: a transmitter for generating an electromagnetic signal, said transmitter having switch means for turning said signal on and off; a receiver/stimulator for receiving said signal from said transmitter and generating an electrical stimulus pulse in response to receiving said signal, said electrical stimulus pulse having a peak current value, a duty cycle value, a pulse repetition frequency value, and a pulse train duration value; an electrode electrically connected to said receiver/stimulator for transmitting said electrical stimulus pulse to the individual; and stimulation indicator means responsive to said electrical stimulus pulse for indicating when said electrical stimulus pulse passes from said electrode to the individual.

2. The apparatus of claim 1, wherein: said receiver/stimulator includes current adjusting means for adjusting said peak current value of said electrical stimulus pulse.

3. The apparatus of claim 2, wherein: said receiver/stimulator includes duty cycle adjusting means for adjusting said duty cycle value of said electrical stimulus pulse.

4. The apparatus of claim 3, wherein: said receiver/stimulator includes frequency adjusting means for adjusting said pulse repetition frequency value of said electrical stimulus pulse.

5. The apparatus of claim 4, wherein: said receiver/stimulator includes duration adjusting means for adjusting said pulse train duration value of said electrical stimulus pulse.

6. The apparatus of claim 5, wherein: said stimulation indicator means includes means for generating an audible signal.

7. The apparatus of claim 6, wherein: cord means electrically connect said electrode to said receiver/stimulator, whereby said electrode is positionable in a location that is remote from said receiver/stimulator.

8. The apparatus of claim 7, further comprising: harness means for holding said electrode in electrical contact with the individual.

9. The apparatus of claim 8, wherein: said transmitter has coding means for coding said electromagnetic signal; and

said receiver/stimulator has decoding means for recognizing said coded electromagnetic signal, whereby said electrical stimulus pulse is generated only in response to a recognized electromagnetic signal.

10. The apparatus of claim 9, wherein: said electrode has a button portion disposed within a ring portion.

11. The apparatus of claim 10, wherein: said receiver/stimulator has current adjusting means for adjusting said peak current value of said electrical stimulus between about 4.1 and 7.9 mA based on a skin impedance of about 45 to 55 Kohms.

12. The apparatus of claim 11, wherein: said receiver/stimulator has duty cycle adjusting means for adjusting said duty cycle value of said electrical stimulation pulse between about 1 to 90%.

13. The apparatus of claim 12, wherein: said receiver/stimulator has frequency adjusting means for adjusting said pulse repetition frequency value said electrical stimulus pulse between about 10 to 120 pulses per second.

14. The apparatus of claim 13, wherein: said receiver/stimulator has duration adjusting means for adjusting said pulse train duration value of said electrical stimulus pulse between about 0.2 to 2.0 seconds.

15. The apparatus of claim 14, wherein: said button portion of said electrode is about 0.35 to 0.40 inches in diameter; and said ring portion of said electrode has an inner diameter of about 0.52 and 0.60 inches, an outer diameter of about 0.85 to 0.90 inches, and about 0.25 to 0.38 inches between an inner perimeter and an outer perimeter of said ring portion.

16. A method of treating an individual using electrical aversive stimulus, comprising the steps of: securing to an individual a remotely controlled apparatus for administering electrical aversive stimulus, said apparatus having a receiver/stimulator and an electrode electrically connected to said receiver/stimulator; securing said electrode in electrical contact with said individual; observing said individual for undesired behavior; remotely activating said apparatus when undesired behavior is observed, such that electrical aversive stimulus is administered to said individual, said electrical aversive stimulus having desired peak current value, duty cycle value, pulse repetition frequency value, and pulse train duration value; and monitoring stimulus feedback from said apparatus which indicates that said electrical aversive stimulus has been administered to said individual.

17. The method of claim 16, including: adjusting said peak current value of said electrical aversive stimulus to alter the perceived aversiveness of said stimulus.

18. The method of claim 17, including: adjusting said duty cycle value of said electrical aversive stimulus to alter the perceived aversiveness of said stimulus.

19. The method of claim 18, including: adjusting said pulse repetition frequency value of said electrical aversive stimulus to alter the perceived aversiveness of said stimulus.

20. The method of claim 19, including: adjusting said pulse train duration value of said electrical aversive stimulus pulse to alter the perceived aversiveness of said stimulus.

21. The method of claim 19, further including the step of: maintaining said peak current value between about 4.1 and 7.9 mA based on a skin impedance of about 45 to 55 Kohms.

22. The method of claim 21, including: maintaining said duty cycle value between about 1 to 90%.

23. The method of claim 22, including: maintaining said pulse repetition frequency value between about 10 to 120 pulses per second.

24. The method of claim 23, including: maintaining said pulse train duration value between about 0.2 to 2.0 seconds.

25. The method of claim 24, including: remotely activating said apparatus using a remotely generated electromagnetic signal.

26. The method of claim 25, further including the steps of: securing said receiver/stimulator to the torso of said individual using a harness having at least one shoulder strap and at least one belt; and securing said electrode to a limb of said individual using an electrode harness.

27. The method of claim 26, including: employing said method an individual who is a patient.

28. A method of treating an individual using electrical aversive stimulus, comprising the steps of: securing to an individual a remotely controlled apparatus for administering electrical aversive stimulus, said apparatus including a receiver/stimulator and an electrode electrically connected to said receiver/stimulator; securing said electrode in electrical contact with said individual; prompting said individual to engage in undesired behavior; remotely activating said apparatus when said individual engages in said undesired behavior, such that electrical aversive stimulus is administered to said individual, said electrical aversive stimulus having desired peak current value, duty cycle value, pulse repetition frequency value, and pulse train duration value; and monitoring stimulus feedback from said apparatus which indicates that said electrical aversive stimulus has been administered to said individual.

29. The method of claim 28, including: adjusting said peak current value of said electrical aversive stimulus to alter the perceived aversiveness of said stimulus.

30. The method of claim 29, including: adjusting said duty cycle value of said electrical aversive stimulus to alter the perceived aversiveness of said stimulus.

31. The method of claim 30, including adjusting said pulse repetition frequency value of said electrical aversive stimulus to alter the perceived aversiveness of said stimulus.

32. The method of claim 31, including: adjusting said pulse train duration value of said electrical aversive stimulus pulse to alter the perceived aversiveness of said stimulus.

Description

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to an apparatus and method for deterring or decelerating undesirable behavior by an individual through the use of aversive stimulus. More specifically, this invention relates to a remotely controlled apparatus for administering electrical aversive stimulus to an individual and a method of treatment using the apparatus.

2. Description of Prior Art

It is well known to use aversive stimulus, such as the application of an electric shock, to deter certain types of undesirable behavior. For example, therapists have used electrical aversive stimulus to deter or decelerate self-injurious behavior in individuals. Electrical aversive

stimulation has also been used to educate or train individuals. For example, aversive stimulus has been used to educate or train individual using a method known as "behavior rehersal". Behavior rehersal is typically used on individual who have exhibited undesired behavior in the past. Often, the undesired behavior that the individuals exhibited in the past was extreme, such as exhibiting violence against others. With behavior rehersal, the individual is prompted to engage in a form of the undesired behavior or is vividly reminded of the past undesired behavior. When the individual engages in the behavior or when it is clear that the individual recalls the behavior, aversive stimulus is administered to the individual in order to remind him or her of what will occur if he or she engaged in that type of behavior in the future.

Aversive stimulation has also been used to train animals.

U.S. Pat. No. 4,440,160 discloses an apparatus that may be worn on the body of the individual to be treated. The apparatus is said to automatically sense the types of patient movements associated with self-injurious behavior. In response to those movements, an electrical aversive stimulus is automatically administered.

When aversive stimulus is used to educate or train an individual, such as when behavior rehersal is used, it may be desirable to utilize a stimulus in which the aversiveness, as perceived by the individual being treated, is less than that of a stimulus which is used to deter or decelerate the individual's present behavior.

There remains a need for a compact apparatus for administering aversive stimulus which may be remotely activated by a therapist, and which provides an indication that the stimulus has been administered. There also remains a need for an apparatus which generates a stimulus having various characteristics which may be adjusted in order to vary the aversiveness of the stimulus as perceived by the individual.

In addition, there remains a need for a method of administering aversive stimulus in which the actual administration of the stimulus may be monitored and in which various characteristics of the stimulus may be adjusted in order to vary the relative aversiveness of the stimulus.

SUMMARY OF THE INVENTION

As used herein, the term "patient" primarily refers to an individual to which aversive stimulus is administered in order to deter or decelerate undesired behavior in that individual or to otherwise train or educate that individual. It will be appreciated, however, that a "patient" may be administered aversive stimulus for any other suitable purpose as well.

This invention has met the hereinbefore described needs. It provides a compact, remotely controlled aversive stimulation apparatus and a method of treatment using that apparatus. The apparatus includes a transmitter and a receiver/stimulator. The transmitter is remote from the receiver/stimulator. The transmitter includes switch means for causing the transmitter to generate and emit an electromagnetic signal. The receiver/stimulator, which may be worn by a patient, receives the electromagnetic signal and, in response thereto, generates an electrical stimulus pulse. The electromagnetic signal may be digitally coded and the receiver/stimulator may be provided with decoding means such that the receiver/stimulator will only generate an electrical stimulus pulse in response to a specifically coded signal.

An electrode is electrically connected to the receiver/stimulator and is held in electrical contact with the skin of the patient using electrode harness means. The electrode may be secured to a location on the patient that is remote upon from the location of the receiver/stimulator, such as a limb, for example. The electrical stimulus pulse is received by the electrode and delivered to the skin of the patient, where it is perceived as an unpleasant or painful sensation.

Stimulation indicator means on the receiver/stimulator is activated after the electrical stimulus pulse has passed from the electrode to the patient. The stimulation indicator means positively indicates that the stimulus has been administered.

The receiver/stimulator may be provided with adjusting means for adjusting the parameters of various characteristics of the electrical stimulus pulse in order vary the perceived aversiveness of the stimulus. The characteristics that may be adjustable include, but are not limited to, peak current, duty cycle, pulse repetition frequency, and pulse train duration.

This invention also provide a method of treatment using the apparatus of this invention.

It is an object of this invention to provide an apparatus for administering aversive stimulus to an individual and a method of treating an individual using that apparatus.

It is another object of this invention to provide an apparatus for administering aversive stimulus which may be used to deter or decelerate undesired present behavior and which may also be used with a behavior rehersal method of treatment.

It is an object of this invention to provide a compact apparatus for administering aversive stimulation to a patient that may be easily connected to the individual.

It is another object of this invention to provide an apparatus for administering electrical aversive stimulus to a patient that utilizes a remote, hand-held transmitter that is easy to use and which permits the therapist to the aversive stimulus while being located a administer substantial distance away from the patient.

It is a further object of this invention to provide an apparatus for administering aversive stimulus to an individual that is activated only by an electromagnetic signal that has been coded so as to reduce the likelihood that stimulus will be administered unintentionally by stray electromagnetic signals or to other patients within range who may be wearing similar apparatus.

It is still another object of this invention to provide an apparatus for administering aversive stimulus to a patient that utilizes an electrode that may be positioned at a location on the patient that is remote from the location of the receiver/stimulator.

It is yet another object of this invention to provide an apparatus for administering aversive stimulus that provides a positive indication to the therapist that stimulus has been administered to the patient.

It is still another object of this invention to provide an apparatus for administering aversive stimulus which permits adjustment of various characteristics of the electrical stimulus pulse to vary the perceived aversiveness of the stimulus.

It is an object of this invention to provide an apparatus for administering aversive stimulus which may be connected to an individual in a manner which is comfortable and which does not unduly restrict the patient's movement during normal activity.

It is yet another object of this invention to provide a method of treating a patient using electrical aversive stimulus which utilizes feedback to the therapist indicating that stimulus has been administered.

It is still another object of this invention to provide a method of treating a patient using electrical aversive stimulus wherein various characteristics of the electrical stimulus pulse may be adjusted in order to vary the perceived averseness of the stimulus.

These and other objects of this invention will be more fully understood from the following description on reference to the illustrations appended hereto.

DESCRIPTION OF DRAWING

FIG. 1 is a plan view of the transmitter of this invention.

FIG. 2 is a right side elevational view of the transmitter of FIG. 1.

FIG. 3 is a bottom view of the transmitter of FIG. 1.

FIG. 4 is a plan view of the receiver/stimulator and electrode of this invention.

FIG. 5 is a right side elevational view of the receiver/stimulator and electrode of FIG. 4.

FIG. 6 is a bottom view of the receiver/stimulator and electrode of FIG. 4.

FIG. 7 is a front view showing the apparatus of this invention connected to a patient.

FIG. 8 is a left side elevational view of the patient shown in FIG. 7.

FIG. 9 is a schematic diagram showing details of the receiver/stimulator of this invention.

FIG. 10 is a current versus time graph of the electrical stimulus pulse generated by this invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIGS. 1-6, there is shown a preferred embodiment of the apparatus of this invention. The apparatus includes transmitter 2 and receiver/stimulator 4. Electrode 6 is electrically connected to receiver/stimulator 4 through electrical cord 8 to be energized thereby.

Referring more particularly to FIGS. 1-3, transmitter 2 generates an electromagnetic signal in a manner well known to those skilled in the art upon the activation of switch means 10. In a preferred embodiment, transmitter 2 includes housing 12, a circuit board (not shown), switch means 10, and power supply 14. Housing 12 is preferably made of plastic polymeric material, but it will be appreciated that any suitable material may be used. Transmitter 2 is preferably of a size such that it will conveniently fit in the user's hand. In a preferred embodiment, switch means 10 consists of spring based transmitter button 16 disposed on the top portion of housing 12. Button 16 is preferably positioned such that a user can easily activate the transmitter while holding the transmitter in his or her hand.

Transmitter power supply 14 is preferably a 12 volt dry cell battery 18. In a preferred embodiment, battery 18 is housed in battery compartment 20 in a portion of transmitter housing 12. A removable battery compartment cover 22 engages transmitter housing 12 to cover battery compartment 20 during normal operation. In FIGS. 1-3, cover 22 is shown as being partially open.

Transmitter 2 may be provided with coding means 24 for digitally coding the electromagnetic signal generated by the transmitter 2. The electromagnetic signal may be coded in a manner well known to those skilled in the art, such as by modulating the signal's pulse width using a binary code, for example. In a preferred embodiment, coding means 24 consists of a bank 26 of from about 8 to 16 dip switches. The setting of the dip switches may be changed to alter the coding of the electromagnetic signal such that only receivers adjusted to respond to the set digital code will be activated by the electromagnetic signal. Such coding will decrease the likelihood that the receiver/stimulator will be activated unintentionally by stray electromagnetic signals. It will also

decrease the likelihood that receiver/stimulators worn by other patients who are within the range of the signal will be unintentionally activated.

In a preferred embodiment, transmitter 2 is also provided with a transmitting indicator lamp 28. Indicator lamp 28 becomes illuminated when transmitter 2 is activated, thereby indicating to the user that a signal has been transmitted. Lamp 28 will remain illuminated while button 16 is depressed and go off when button 16 is released.

A suitable transmitter for use with this invention is manufactured by Linear Corporation and sold under the model designation ET2K. However, it will be appreciated that any suitable transmitter may be used.

Referring again to FIGS. 4-6, receiver/stimulator 4 includes housing 40. Enclosed within housing 40 are a receiver circuit board (not shown) and a controller circuit board (not shown). Receiver/stimulator 4 is powered by receiver power supply 42. Receiver power supply 42 preferably consists of two 9 volt batteries 44. In a preferred embodiment, receiver batteries 44 are housed inside receiver battery compartment 46 disposed within housing 40. Receiver battery compartment 46 is preferably provided with a removable battery compartment cover 48. Battery compartment cover 48 is shown as being partially open.

Receiver/stimulator 4 may also be provided with an antenna 49 for receiving the electromagnetic signal generated by transmitter 2. In a preferred embodiment, antenna 49 is a generally flexible, single conductor wire electrically connected to the receiver circuit board. It will be appreciated, however, that any suitable antenna may be used. Antenna 49 may extend outside housing 40.

Receiver/stimulator 4 may also be provided with stimulation indicator means 50. Stimulation indicator means 50 is activated after an electrical stimulus pulse passes between electrode 6 and the patient. Stimulation indicator means 50 is discussed in detail hereinafter.

In a preferred embodiment, receiver/stimulator 4 may be provided with battery test switch 52 and battery test lamp 54. Battery test switch 52 and battery test lamp 54 may be electrically connected with receiver batteries 44 in a manner well known to those skilled in the art to enable the user to test the condition of receiver batteries 44. When battery test switch 52 is activated, if the voltage in receiver batteries 44 is from about 17.5 to 19.5 volts, battery test lamp 54 will become illuminated in green, indicating that the batteries are sufficiently charged. If receiver battery voltage falls below about 17.5 to 3 volts battery test lamp 54 will be illuminated in red, indicating that the batteries should be replaced. In a preferred embodiment, receiver/stimulator 4 will not generate the desired stimulus pulse if the battery voltage falls below about 12 volts. Battery test lamp 54 is preferably a single bulb that may be illuminated in two colors. However, it will be appreciated that any suitable means may be utilized to achieve separate, two color illumination, such as using a separate bulb for each desired color, for example.

Electrode 6 is electrically connected to receiver/stimulator 4 by electrical cord 8. In a preferred embodiment, cord 8 is provided with separable connector 58. Connector 58 may be separated to permit easy replacement of electrode 6. Connector 58 may also be separated to permit cord 8 to be lengthened. Connector 58 may be separated and an extension having connections on the ends thereof which match the separated portions of connector 58 may be inserted between the separated portions of connector 58, thereby increasing the length of cord 8. Inserting an extension into cord 8 allows electrode 6 to be positioned farther away from receiver/stimulator 4 if desired. Lengthening cord 8 also permits the position of electrode 6 on the patient to be changed. Changing the position of electrode 6 on the patient may be desirable when repeated stimulation is required in order that the stimulation is not always administered to the same location on the patient's skin. Such repeated applications of stimulation may result in injury to the skin.

In a preferred embodiment, receiver/stimulator 4 may be provided with information label 56. Information relating to the values of various characteristics of the electrical stimulus pulse generated by that receiver/stimulator may be recorded on label 56 so as to enable a user to select a receiver/stimulator that is set to administer the desired level of aversive stimulation to a particular patient.

Receiver/stimulator housing 40 is preferably made of plastic polymeric material, however, it will be appreciated that any suitable material may be used. Housing 40 is preferably about 4.5 to 6.5 inches long, about 3.5 to 5.0 inches wide and about 1.29 to 2.5 inches thick. It has been found that this size receiver/stimulator may be conveniently secured to the patient's body in a manner discussed more fully hereinafter, and will not substantially interfere with the patient's comfort or freedom of movement during the patient's normal activities.

In a preferred embodiment, electrode 6 includes a button portion 60 and a ring portion 62. Button portion 60 is preferably disposed within the ring portion of 62. Button portion 60 may have a diameter of about 0.35 to 0.40 inches, but is preferably about 0.375 inches in diameter. Ring portion 62 may have a outer diameter of about 0.85 to 0.900 inches and an inner diameter of about 0.52 to 0.60 inches, with a distance between the outer perimeter and the inner perimeter of the ring being about 0.09 to 0.095 inches. In a preferred embodiment, the outer diameter of ring 62 is about 0.875 inches, the inner diameter is preferably about 0.560, and the distance between the inner perimeter and the outer perimeter of ring 62 is preferably about 0.315 inches. This type of electrode is referred to as a "captured ring" or "Tursky" type electrode. This electrode configuration is preferred because the application of electricity to the patient is confined to a small area of skin between button portion 60 and ring portion 62. Using an electrode of this type also reduces the possibility of the patient receiving transthorasic shock, which may interfere with the patient's normal heartbeat rhythm.

Ring 62 and button 60 of electrode 6 are preferably made of stainless steel. However, it will be appreciated that any suitable electrically conductive material may be used. In a preferred embodiment, ring 62 and button 60 are secured to a base 61. Base 61 is preferably made of substantially rigid material, such as plastic polymeric material or glass, for example. Ring 62 and button 60 may be secured to base 61 using adhesive or any other suitable fastening means known to those skilled in the art. Ring 62 is preferably electrically connected to receiver/stimulator through conductor 63 of electrical cord 8. Button 60 is preferably electrically connected to receiver/stimulator 4 through conductor 65 of electrical cord 8.

Electrode 6 may also be provided with means for securing the electrode in electrical contact with the patient's skin. In a preferred embodiment, slots 64, 66 may be provided to accommodate a strap for holding the electrode in place against a patient's skin, as discussed hereinafter.

Referring to FIGS. 7 and 8, there is shown a preferred manner of securing receiver/stimulator 4 and electrode 6 to a patient. Patient 76 is fitted with a receiver/stimulator harness 78. Harness 78 preferably has a shoulder straps 80, 81 and belt 82 for holding pocket 84 in place on the front portion of the patient's 76 torso. Receiver/stimulator 4 is preferably received into pocket 84 through the top thereof. Opening 86 in the front portion of pocket 84 may be provided to allow stimulation indicator means 50 to remain exposed. The receiver/stimulator antenna is preferably contained within pocket 84 along with receiver/stimulator 4 during normal operation. In a preferred embodiment, the antenna is not permitted to extend outside pocket 84 during normal operation.

Electrical cord 8 preferably extends outside pocket 84 through the top thereof. Electrode 6 is preferably secured to a portion of the patient's 76 body away from receiver/stimulator 4. Electrode harness means 88 may be provided for holding electrode 6 in place in electrical contact with the skin of the patient 76. In a preferred embodiment, limb belt 90 passes through the slots in the base portion of electrode 6 and across the back thereof and is then secured around a portion of patient's 76 body, such as the upper arm. Strap 92 is preferably secured to one of the straps 80, 81 on apron

78 to further resist slippage of limb belt 90 on patient 76. Straps 80, 81, belt 90 and electrode harness 88 may be made from any suitable material, such as nylon webbing or cotton/elastic blend material, for example. It will be appreciated that any suitable tightening means and buckle means may be used to adjust the length of straps 80, 81, belt 90, and electrode harness 88.

The combination of harness 78 and electrode harness means 88 allows receiver/stimulator 4 and electrode 6 to be easily and comfortably secured to the patient 76 without requiring the use of elastic bandages to hold the units in place. In addition, harness 78 and electrode harness means 88 will not unduly restrict the patient's 76 movement during normal activity.

While use of harness 78 and electrode harness means 88 is a preferred manner for securing receiver/stimulator for an electrode 6 to a patient's body, it will be appreciated that these components may be secured to the patient's body using any suitable means.

Referring to FIG. 9, there is shown a schematic diagram of the receiver/stimulator 4 of this invention. Coded electromagnetic signal 93 is generated by transmitter 2. Receiver board 94 is provided with decoding means which may be adjusted so that receiver board 90 will only recognize an electromagnetic signal emitted by a transmitter having the proper digital code. The decoding means of receiver board 94 may be a series of about 8 to 16 dip switches substantially similar to the dip switches 26 located on transmitter 2, as shown in FIG. 1. It will be appreciated, however, that any suitable decoding means may be used. When dip switches are used, they may be disposed within housing 40 of receiver/stimulator 4, as shown in FIG. 6.

Referring again to FIG. 9, when the properly coded electromagnetic signal is received by antenna 49, power control section 96 of controller board 98 is activated. Power control section 96 turns on the power to the rest of receiver/stimulator 4. Power to the receiver stimulator is provided by receiver power supply 42, which in the preferred embodiment includes two 9 volt batteries. When timer/driver section 100 receives power it generates a plurality of 20 kHz pulses. The pulses are preferably generated, or modulated, a rate of about 10 to 120 pulses per second. This rate is referred to as the burst frequency. The 20 kHz pulse preferably have a duration of about 0.2 to 2.0 seconds. The burst frequency, duration, and duty cycle of these pulses may be adjusted. Adjustments made to these values will, in turn, affect the characteristics of the electrical stimulus pulse in a manner discussed more fully hereinafter. The 20 kHz pulses cause high current pulses to flow through the input windings of transformer 102. The low current, high voltage pulses from the high voltage output section of transformer 102 are rectified and filtered at rectifier section 104, thereby providing a modulated DC current pulses, or the electrical stimulus pulse, to electrode 6. The stimulus pulse will preferably be generated for substantially for the same length of time as the 20 kHz pulses, that is about 0.2 to 2.0 seconds, and will be at approximately the same burst frequency of those pulses. The DC electrical stimulus pulse flows from button 60, through the patient's skin, to ring 62. Current flowing back from electrode 6 flows through opto-isolator 106. Current flowing through opto-isolator 106 activates stimulation indicator means 50, thereby indicating that the stimulus has been administered to the patient.

The apparatus of this invention may be used to treat a patient as follows to deter or decelerate present undesireable behavior. Receiver/stimulator 4 and electrode 6 are preferably secured to a patient who exhibits undesired behavior, such as self-injurious behavior, for example, as described hereinbefore on reference to FIGS. 7 and 8. Referring to FIGS. 1-6, while observing the patient, a therapist may carry transmitter 2, which has been adjusted to send the appropriately coded signal corresponding to the receiver/transmitter 4 attached to the patient. When the undesired behavior is observed, the therapist may activate transmitter 2 by pressing and holding transmitter button 16, thereby generating a coded electromagnetic signal. Once the electromagnetic signal is generated, the button 16 is preferably released. Receiver/transmitter 4, upon receiving and recognizing the coded electromagnetic signal, becomes activated. In a preferred embodiment, receiver/transmitter 4 preferably does not generate an electrical stimulus pulse until the electromagnetic signal from transmitter 2 is received for a continuous period of about 0.2 to 1.0 seconds. This lessens the likelihood that an electrical stimulus pulse would be administered as a result of transmitter button

16 being accidentally pressed, such as where transmitter 2 is activated and then quickly deactivated. If transmitter 2 is continuously activated for more than about 1 to 3 seconds, a second electrical stimulus pulse will be generated and administered to the patient. The electrical stimulus pulse will be administered to the patient within about 0.2 to 1.0 seconds after receiver/stimulator 4 has been activated. As discussed hereinbefore, the current returning from electrode 6 after the stimulus has been properly administered activates stimulation indicator means 50, thereby confirming that the stimulus has been administered to the patient. Stimulation indicator means 50 will preferably remain activated while the stimulus is being administered.

Alternatively, the apparatus may be used to educate or train a patient by using a "behavior rehersal" method of treatment. With this method, a patient who is wearing the apparatus and who has exhibited undesired behavior in the past is prompted into engaging in the undesired behavior or is vividly reminded of the undesired behavior. The apparatus is activated when the patient engages in or recalls the behavior, thereby administering aversive stimulus. This type of treatment method reminds the patient that the type of undesired behavior in which he or she had engaged in the past will result in aversive stimulus being administered. Behavior rehersal is often used when the patient has exhibited undesired behavior which was extreme, such as engaging in violence against others. When this type of treatment is used, it is often desirable for the aversiveness of the stimulus, as perceived by the patient, to be less than when the stimulus is used to deter or decelerate a patient's present behavior.

Because stimulation indicator means 50 is activated by the current returning from electrode 6, it provides a positive indication that the stimulus has been administered to the patient. The stimulation indicator means of prior art devices are typically activated when the transmitter signal is received or by the generation of the stimulus pulse. Such systems do not provide a reliable indication that the stimulus has actually been administered. For example, if the electrode has been damaged or is not in electrical contact with the patient's skin, no stimulation will be administered. However, with the prior art systems, the transmitter signal will nonetheless be received and a stimulus pulse will still be generated. As a result, the stimulator indicator means of those devices will be activated and will falsely indicate that stimulus has been administered. With the present invention, if the stimulus is not administered to the patient, no current will flow back from the electrode and stimulation indicator means 50 will not be activated. This invention thereby provides feedback which positively indicates to the therapist that the stimulus has been administered.

In a preferred embodiment, stimulation indicator means 50 produces an audible signal, such as a beep. This type of signal will clearly provide the therapist with an indication that the stimulus has been administered. The audible signal produced by stimulation means 50 will preferably be loud enough to be heard over sounds made by the patient and other background noise that may be present. While a beeper has been described as a preferred embodiment for stimulation indicator means, it will be appreciated that any suitable type of stimulation indicator means may be used in lieu thereof or in addition thereto, such as visual indicator means, such as a lamp, for example, or other types of audible signals.

In a preferred embodiment, transmitter 2 will be capable of activating receiver/stimulator 4 from a distance of about 0 to 20 feet. This will enable the therapist to distance himself or herself from the patient when the stimulus is administered. This will result in a safer environment for the therapist by minimizing the need to approach the patient, thereby resulting in fewer physical confrontations between patient and therapist. This will also decrease the likelihood that the patient will come to associate the application of the stimulus pulse with the presence of the therapist. It will be appreciated that the range of the transmitter will be reduced if the patient and the therapist are separated by walls or partitions or if the patient is facing such that his or her body is disposed between the transmitter and the receiver/stimulator.

Various characteristics of the electrical stimulus pulse generated by receiver/stimulator 4 may be adjusted to provide varying levels of perceived aversiveness resulting from the application of the stimulus. Referring to FIG. 10, there is shown a current versus time graph of the electrical stimulus pulse generated by the receiver/stimulator of this invention. FIG. 10 shows that the electrical stimulus pulse consists of a series of short current pulses with short periods of no current there between. This type of electrical signal is known as a rectangular waveform.

Peak current 120 of electrical stimulus pulse 118 is the maximum current of the stimulus pulse. This is one of the characteristics of the stimulus pulse that determines the perceived aversiveness of the stimulus. In general, the higher the peak current value, the greater the perceived aversiveness of the stimulus. However, a higher peak current value is more likely to result in injury to the patient's skin. Peak current value 120 may be adjusted between about 4.1 mA and 7.9 mA, based on an average skin impedance of 50 kohms. Skin that has been injured, either through repeated applications of electrical stimulus or through other means, will typically have lower impedance than uninjured skin and will, thereby, generally allow a greater peak current to flow than uninjured skin. Peak current 120 will also be affected by the condition of the receiver batteries and by the actual skin resistance of the patient.

The preferred setting for peak current value is preferably about 4.1 to 7.9 mA. This value may be adjusted using current adjusting means by varying the resistance through which the stimulus pulse must flow before reaching the electrode. In a preferred embodiment, changing the resistance is accomplished by replacing one or more resistors on the controller board. As discussed, peak current may be adjusted in order to vary the perceived adverseness of the stimulus. Accordingly, when the apparatus is being used to deter or decelerate a patient's present conduct, a high peak current value may be desired. Conversely, if the apparatus is being used with a behavior rehersal treatment, a lower peak current value may be desired. Because peak current is adjustable, the present invention may be used with both method treatments.

Duty cycle is the percentage of time during each cycle that current is flowing. This value is determined by dividing the length of time current is flowing during a cycle by the total length of time of each cycle. The duty cycle of the stimulus pulse will also affect the perceived aversiveness of the stimulus pulse. Generally, a higher duty cycle value setting will result in the perceived aversiveness of the stimulus being greater. However, a stimulus having a high duty cycle value is generally more likely to cause injury to the patient's skin than a stimulus with a lower duty cycle value since the skin will be exposed to more electrical current with higher duty cycles.

In a preferred embodiment, the duty cycle value may be adjusted between about 1% and 90%. The preferred setting for duty cycle is about 20 to 30%. Duty cycle 2 the stimulus pulse is directly related to the duty cycle of the 20 kHz pulse discussed hereinbefore. Duty cycle is preferrably adjusted by using duty cycle adjusting means to change the duty cycle of the 20 kHz pulses. In a preferred embodiment, duty cycle may be adjusted by adjusting a potentiometer located in the timer/driver portion 100 of controller board 98, as shown in FIG. 9. Adjustments to the potentiometer will change the duty cycle of the 20 kHz pulses generated in timer/driver portion 100 which will, in turn, change the duty cycle of the resulting stimulus pulse.

Pulse repetition frequency is the number of pulses of peak current generated per second. Varying the pulse repetition frequency of the stimulus pulse will vary the perceived aversiveness of the stimulus to many patients. In a preferred embodiment, the pulse repetition frequency value may be adjusted between about 10 to 120 pulses per second. The preferred setting for pulse repetition frequency is about 60 to 100 pulses per second. Pulse repetition of the stimulus pulse preferably directly corresponds to the burst frequency of the 20 kHz pulses discussed hereinbefore. Pulse repetition frequency may be adjusted by using frequency adjusting means to change the burst frequency of the 20 kHz pulses. In a preferred embodiment, such adjustments are preferably made by adjusting the modulation of the 20 kHz pulses, preferably by adjusting a potentiometer on the timer/driver 100 portion of controller board 98.

Pulse train duration is the total length of time that the electrical stimulus pulse is administered to the patient. Pulse train duration has a substantial affect the perceived aversiveness of the stimulus. Generally, the longer the stimulus is administered, the greater the perceived aversiveness of the stimulus. However, a stimulus pulse having a long pulse train duration is generally more likely to cause injury to the patient's skin than is a stimulus pulse having a shorter pulse train duration. In a preferred embodiment, the pulse train duration value may be adjusted from about 0.2 to 2.0 seconds. The preferred setting for pulse train duration value is about 0.2 to 1.00 seconds.

This value may be adjusted by using duration adjusting means to vary the duration of the 20 kHz pulses generated by timer/driver 100, as discussed hereinbefore. Pulse train duration preferably corresponds directly to duration of the 20 kHz pulses. In a preferred embodiment, adjustments to pulse train duration are preferably made by adjusting potentiometer means located on the timer/driver section 100 of controller board 98, which varies to the duration of the 20 kHz pulses.

Adjusting peak current value, duty cycle value, pulse repetition frequency value and pulse train duration value allows the apparatus to be tailored to the needs of particular patients. For example, patients having injuries to the skin adjacent to the electrode may adequately respond to stimulus which is perceived only mildly averse by uninjured patients. Conversely, other patients may respond only to stimulus which is perceived as being extremely aversive to others. It has been found that the following settings result in a stimulus pulse which generally will deter or decelerate self-injurious behavior in many patients:

Peak current: 7.9 mA at 50 kohms skin resistance
Duty cycle: 25%
Pulse repetition 80 pulses per frequency: second Pulse train duration: 0.2 seconds

---

The method of treatment of this invention includes securing a remotely activated apparatus for administering electrical aversive stimulus to a patient to be treated. The patient is then observed for signs of undesired behavior. If the patient is observed exhibiting such behavior, the apparatus for administering the aversive stimulus is remotely activated by the observer through the use of an electromagnetic signal thereby administering an electrical aversive stimulus pulse to the patient. The apparatus then provides positive feedback to the observer that the stimulus has been administered to the patient. If desired, the peak current value, duty cycle value, pulse repetition frequency value and pulse train duration value of the electrical aversive stimulus pulse may be adjusted in order to change the perceived aversiveness of the applied stimulus pulse.

An alternative method of treatment includes utilizing the apparatus of this invention with a behavior rehersal method of treatment, as discussed hereinbefore.

It will be appreciated that this invention provides a compact apparatus for administering electrical aversive stimulus which may be activated from a distance, and which provides a positive indication that the stimulus has been administered. Moreover, it will be appreciated that this invention provides an apparatus which generates an electrical aversive stimulus having various characteristics which may be adjusted in order to vary the perceived averseness of the stimulus. It will also be appreciated that a method of treatment using this apparatus is also provided.

For convenience of illustration, self-injurious behavior has been described as the typical type of behavior which this apparatus may be used to deter or decelerate. However, it will be appreciated by those skilled in the art that this invention may be used to deter various types of undesired behavior. It will also be appreciated that this invention may be used to educate or train individuals and animals.

Whereas particular embodiments of this invention have been described for purposes of illustration, it will be evident to those skilled in the art that numerous variations may be made without departing from the invention as defined in the appended claims.

Attachment B

FDA-Supplied Establishment Information:

Establishment Registration Number: 1222743
Company Name: THE JUDGE ROTENBERG EDUCATIONAL CENTER, INC.
Address: 240 TURNPIKE ST. (Map)
Address 2:
City: CANTON
State MA
Zip / Postal Code: 02021-2341
County: NORFOLK
Country: US
Establishment Operation Code(s): MM - Manufacturer
Establishment Status Code: A - Active
Year of Most Recent Initial
or Annual Registration: 2005
FDA-Supplied Owner/Operator Information:

Owner/Operator Number: 9003264
Company Name: THE JUDGE ROTENBERG EDUCATIONAL CENTER, INC.
Address: 240 TURNPIKE ST.
Address 2:
City: CANTON
State: MA
Zip / Postal Code: 02021-2341
Country: US
Owner/Operator Phone: 781-828-2202
FDA-Supplied Official Correspondent Information:
Official Correspondent Name: MR. GERALD KUTCHER
Company Name: THE JUDGE ROTENBERG EDUCATIONAL CENTER, INC.
Address: 240 TURNPIKE ST.
Address 2:
City: CANTON
State: MA
Zip / Postal Code: 02021 2341
Country: US
Official Corespondent Phone Number: 781-828-2202

Company Name THE JUDGE ROTENBERG EDUCATIONAL CENTER, INC.
Address 240 TURNPIKE ST.
City, State, Zip CANTON, MA 02021
Country US
FDA Owner/Operator Phone 781-828-2202
FDA Medical Specialty Code NE - Neurology
FDA Product Code HCB
FDA Classification Name DEVICE, AVERSIVE CONDITIONING
FDA Device Classification Code Standards
FDA Regulation Number 882.5235
FDA Common Generic Name GRADUATED ELECTRONIC DECELERATOR
FDA Proprietary Device Name GRADUATED ELECTRONIC DECELERATOR
FDA Owner / Operator Number 9003264
FDA Owner / Operator Name THE JUDGE ROTENBERG EDUCATIONAL CENTER, INC.
FDA Establishment Registration Number 1222743

FDA Registered Establishment Name THE JUDGE ROTENBERG EDUCATIONAL CENTER, INC.
FDA Operation Code(s) MM - Manufacturer
FDA Listing Date 05-04-95
FDA Listing Status Code Active
Differentiation N/A
Keywords N/A
Description N/A
Brochure N/A
Product Website N/A

Attachment C

http://www.motherjones.com/news/feature/2007/09/why_cant_mass_shut_matthew_israel_down.html

Why Can't Massachusetts Shut Matthew Israel Down?

Radical behaviorist Matthew Israel has a one-size-fits-all solution to all variety of troubled kids: Document their misdeeds and discipline them—using social isolation, food deprivation, and electric shocks.

Jennifer Gonnerman
August 20, 2007

In Massachusetts, Matthew Israel's critics have been trying to put him out of business for more than two decades. The first major battle took place in 1985—before Israel even started using shocks—after a 22-year-old student named Vincent Milletich died while in restraints at one of Israel's homes. The state Office for Children tried to close down Israel's facility, but he fought back with a lawsuit and a PR blitz. (For example, much as he does with journalists today, Israel showed videos of his methods to pioneering behaviorist B.F. Skinner, who was famously opposed to the use of painful punishments known as "aversives." Skinner then issued a statement saying that such extreme patients might require aversive therapy.) In the end, Judge Ernest Rotenberg, for whom the facility is now named, decreed that the program could stay open, though Israel would have to obtain court approval every time he wanted to use aversive therapy on a student.

In the mid-1990s, Massachusetts again tried to close down Israel's program—which by then had started to use electric shocks—and again he prevailed. This time, a judge declared that the state Department of Mental Retardation had waged a "war of harassment" against Israel, accused its commissioner of lying on the witness stand, stripped the agency of its power to regulate Israel's facility, and ordered the state to pay the $1.5 million in legal fees and other costs that Israel had racked up. The commissioner was forced to resign, a cautionary tale for any other state official thinking of taking on Israel.

Meanwhile, a parallel battle over Israel's use of aversives has been fought in the Massachusetts state Legislature. Since the late 1980s, a bill to ban their use has been introduced in every legislative session—and every time it has failed to become law. Emotional hearings on the pros and cons of aversives have become a regular ritual. Critics (professors, disability activists, mental-health experts) testify against the use of aversive therapy, while parents plead with lawmakers not to pass the bill, insisting that without aversives their children's self-abusive behavior will escalate.

In this battle, Israel has the perfect ally: state Rep. Jeffrey Sanchez, whose nephew Brandon has been in Israel's care since age 12; Brandon, now 27, is one of Israel's most challenging cases, with a long record of extremely self-injurious behavior. This is the

same Brandon who Israel once shocked more than 5,000 times, prompting him to make a new device that could deliver much more pain. Nevertheless, Brandon's parents credit Israel with saving their son's life, and his uncle has helped ensure that no bill banning aversives becomes law.

So in a bird-in-hand strategy, state Senator Brian A. Joyce, whose district includes the Rotenberg Center, has introduced two new bills that—while not proposing an outright ban on aversives—would regulate their use much more strictly. "The harsh reality is we're doing this to innocent children in Canton, Massachusetts," he says. "If this treatment were used on terrorist prisoners in Guantanamo Bay, there would be worldwide outrage."

Attachment D

http://www.motherjones.com/news/feature/2007/09/nagging_zap_swearing_zap.html

Nagging? Zap. Swearing? Zap: New York's Investigations of the Rotenberg Center

Jennifer Gonnerman
August 20, 2007

In 2005, Yvonne Williams, an Amtrak waitress who lives in Brooklyn, needed to get her 15-year-old bipolar son Darryl into a residential school—fast. Darryl had been hospitalized, and the Rotenberg Center was the only facility Yvonne could find that would pick him up. To an overworked mom with no car, that was the deciding factor. "It was a last-minute decision," she recalls, "but it was a decision that had to be made at that moment."

New York state has been sending troubled kids to Dr. Israel since 1976, but its citizens now comprise nearly 60 percent of the Rotenberg Center's population. This is partly a matter of supply and demand: New York has a shortage of beds for troubled kids, while Israel has a policy of accepting anybody. It is also a matter of marketing. Israel has long sought referrals from New York's school districts and psychiatric hospitals; recently, he has begun courting the criminal justice system, sending promotional materials to judges and probation officers, picking up students from New York's juvenile jails and Rikers Island.

Sales pitches to judges, free door-to-door transportation, a "near-zero" rejection policy—all of this has helped to fuel the Rotenberg Center's rapid growth in recent years. Then, in June of 2006, a report produced by the New York State Education Department threatened to destroy the program's carefully cultivated image. A group of investigators, including three psychologists, spent five days at the Rotenberg Center and compiled a 26-page document packed with damning findings.

Staff shock kids for "nagging, swearing, and failing to maintain a neat appearance" and once threatened to shock a girl who sneezed and then asked for a tissue.

Some students must "earn" meals by not displaying certain behaviors. Otherwise they are "made to throw a predetermined caloric portion of their food into the garbage."

When students enter and leave the school each day, "almost all" are wearing some type of restraints, such as handcuffs or leg shackles.

"Students may be restrained"—on a four-point restraint board or chair—"for extensive periods of time (e.g. hours or intermittently for days)."

Some students are shocked while strapped to the restraint board.

A "majority" of employees "serving as classroom teachers" are "not certified teachers."

Rotenberg's marketing reps bestow presents on prospective families—"e.g. a gift bag for the family, basketball for the student."

Although the center has described its shock device as "approved" by the fda in its promotional materials, it "has not been approved."

The facility collects "comprehensive data" on behaviors it seeks to eliminate, but "there was no evidence of the collection of data on replacement or positive behaviors."

The facility makes no assessment of the "possible collateral effects of punishment such as depression, anxiety, and/or social withdrawal."

Israel denounced the investigators as "biased" and compiled a counter-report nearly three times the length of the original. He denied that residents go hungry, and clarified that only 20 percent of them are restrained on their way to and from school. And to the charge that shocks might hurt students' psychological well-being? "There are no negative side effects of the GED to consider," he wrote. Israel also hired lobbyists, lawyers, and Manhattan PR agent Ted Faraone (whose former clients include disgraced New York Times reporter Jayson Blair). And while the number of New Yorkers shipped off to the Rotenberg Center slowed after the report's release, the facility's total population has remained constant—thanks in part to its increased marketing efforts in Virginia.

Attachment E

http://arcmass.org/StateHousePolicy/RegulationandPolicyDebates/AversiveTherapy/DEECreportonJRCprank/tabid/770/Default.aspx

DEEC findings on JRC abuse allegations

Massachusetts Department of Early Education and Care releases investigative report
December 18, 2007

The Massachusetts Department of Early Education and Care, the state agency that licenses residential schools serving children 0-18 and C766-eligible individuals 18-22, released an investigative report today, outlining a number of appalling findings, related to a 8/26/07 "prank" involving 3 JRC clients.

Some findings contained in the report:

The JRC clinician assigned to the Stoughton house where the incidents occurred, reported the students are high functioning.

Residential staff were physically abusive towards two residents.

Residential staff failed to protect the health and safety of residents.

Residential staff failed to follow JRC policy and training regarding medical treatment which resulted in a delay of medical attention.

A former resident, who had run away from JRC, phoned staff, posing as one of JRC's quality control monitors, and gave a series of instructions to staff to awaken 3 residents and administer shocks for behaviors exhibited earlier in the evening. A series of these calls were made between 2:00 a.m. and 4:45 a.m. during which time the former resident continued to order staff to administer shocks and restraints.

Although the licensee (JRC) claims the victims were evaluated by JRC nursing staff, JRC's physician, as well as the victim's treating clinical Doctor, and found to be in good health, one victim was further examined at a hospital (name redacted) and was reported to have two areas of first degree burn[s] related to the presence of the GED.

Based on the actions and expressed opinions of the [JRC] staff, it can be ascertained that the JRC program policies were set up in such a way that it took decision making away from the staff. The staff were unclear on who was the responsible person(s) for the administration supervision of the program and failed to exercise any independent judgment in the matter.

Video surveillance revealed that one resident was restrained on a 4-point board despite the fact the individual was not approved for this particular “movement limitation” treatment.

The residential staff involved in the incident acknowledged they were unfamiliar with the use of aversive treatment, delayed consequences or reporting abuse and/or neglect.

One staff stated he assumed that it was a test from the Quality Control to find out if he was following procedure.

When interviewed, direct care staff misinformed investigators as to their activities. For example, staff claimed they were sleeping, doing chores, and unaware of the incident. Video surveillance revealed staff were aware and communicating with one another about the activities referenced in the report.

After receiving shocks, the staff did not respond to resident’s complaint of pain or notify the JRC Nursing Director who is available 24 hours a day for emergency calls. One resident was said to have informed staff on several occasion that his leg was “killing him” and could be heard asking staff to call the nurse. It was reported that staff was made aware of the resident’s complaint and “blew it off.”

At 4:32 a.m., one resident told staff that he was sweaty, his mouth was dry, blood pressure was racing and he felt as though he was about to have a stroke. The resident had asked and was given water but was otherwise not evaluated by any staff.

Attachment F

I would note that in the following OSHA document that 6 mA meets the threshold of Massachusetts Law regarding an electrical weapon where muscle control of an average adult is lost. I would point out that a significantly lower amperage is required with children, and in the elderly.

http://www.osha.gov/SLTC/etools/construction/electrical_incidents/eleccurrent.html

How Electrical Current Affects the Human Body

Three primary factors affect the severity of the shock a person receives when he or she is a part of an electrical circuit:

- Amount of current flowing through the body (measured in *amperes*).
- Path of the current through the body.
- Length of time the body is in the circuit.

Other factors that may affect the severity of the shock are:

- The voltage of the current.
- The presence of moisture in the environment.
- The phase of the heart cycle when the shock occurs.
- The general health of the person prior to the shock.

Effects can range from a barely perceptible tingle to severe burns and immediate cardiac arrest. Although it is not known the exact injuries that result from any given amperage, the following table demonstrates this general relationship for a 60-cycle, hand-to-foot shock of one second's duration:

Current level (in milliamperes)	Probable effect on human body
1 mA	Perception level. Slight tingling sensation. Still dangerous under certain conditions.
5 mA	Slight shock felt; not painful but disturbing. Average individual can let go. However, strong involuntary reactions to shocks in this range may lead to injuries.
6-30 mA	Painful shock, muscular control is lost. This is called the freezing current or "let-go" range.
50-150 mA	Extreme pain, respiratory arrest, severe muscular contractions. Individual cannot let go. Death is possible.
1000-4300 mA	Ventricular fibrillation (the rhythmic pumping action of the heart ceases.) Muscular contraction and nerve damage occur. Death is most likely.
10,000 mA	Cardiac arrest, severe burns and probable death.

Attachment G

http://www.cnn.com/2006/EDUCATION/06/21/shock.therapy.school/index.html?eref=sitesearch

New York education officials ban shock therapy
Report on Massachusetts school yields new policy
Katy Byron

NEW YORK (CNN) -- New York officials voted on Tuesday to prohibit the use of electric shock therapy on students after a report released last week revealed that a Massachusetts school has been electrically shocking its students, nearly half of whom are from New York state.

The New York State Education Department (NYSED) report criticizes the Judge Rotenberg Center program that uses "Level III" aversive behavior therapy, which includes body restraint, diet restrictions and electric shock treatments.

Until Tuesday's vote, New York education policy did not explicitly address banning behavior interventions such as shock therapy. Under the new policy, educators must get case-by-case approval from the New York Board of Regents before the use of aversive therapies of any kind.

Seventy-one New York state students attend Judge Rotenberg Center, and their tuition is funded by New York state residents.

Judge Rotenberg Center, a residential, non-profit school in Canton, Massachusetts, specializes in the controversial behavior therapy and treats troubled and mentally disabled youth who often exhibit behavior such as "head-banging, eye-gouging and biting off body parts."

Seventy-seven of Judge Rotenberg Center's students wear fanny packs rigged with an electric shock device, called a graduated electronic decelerator (GED), with shock administration controlled by a staff member.

The Judge Rotenberg Center manufactures the GEDs, which are not approved by the Food and Drug Administration, and is the only school in the country using them, according to the center.

Using GED treatment on a student requires, first, approval from the student's guardian and home school district, and then a court order, according to both the Judge Rotenberg Center and NYSED.

In April and May, NYSED staff members and three psychologists went to Judge Rotenberg Center and subsequently reported in their review that the GEDs are cause for health and safety concerns.

The report says most students wore the GEDs during the majority of their sleeping and waking hours, including during bathing, and staff members were not sufficiently trained in how to use the device.

In a written statement, the NYSED said, "The department notified JRC that it must immediately take corrective actions to cease certain interventions that threaten the health and safety of students at the school. Failure to do so would affect its approval to serve New York state students."

In a letter sent to New York State Commissioner of Education Richard Mills, Judge Rotenberg Center's representative, Michael Flammia, claimed that two of the psychologists who worked with NYSED officials to review JRC do not have adequate experience or knowledge of aversive behavior therapies to make assessments regarding JRC's program.

Flammia also wrote in his letter, dated May 19, that one of the visits by the authors of the report was unannounced and that questions to NYSED regarding the review and criteria Judge Rotenberg Center were judged on have gone unanswered.

Judge Rotenberg Center has students from 18 states -- including California, New York and New Mexico -- and the District of Columbia.

CNN's Dana Digit contributed to this report.

Attachment H

In the following academic papers the authors presents flawed reasoning, several significant technical errors, and it appears to have been written solely to endorse the use of illegal electrical weapons.

http://www.effectivetreatment.org/remote.html

A Remote-Controlled Electric Shock Device for Behavior Modification

Matthew L. Israel, Robert E. von Heyn, and Daniel A. Connolly
The Judge Rotenberg Center

David Marsh
Harmony Design, Inc., Harmony, Rhode Island

JRC pub. no. 92-3

The authors designed and used a remote-controlled, electric shock device for human behavior modification after having limited success with the Self-Injurious Behavior Inhibiting System (SIBIS). The new device, the Graduated Electronic Decelerator (GED), incorporates design changes based on the authors' extensive experience with SIBIS. Improvements include higher intensity, adjustable duration, remote electrodes permitting more body sites for electrode placement, louder stimulation-indicator, feedback signaling of actual skin stimulation rather than simply the receipt of a transmitter signal, greater range, and rechargeable batteries. Measurements were taken of the SIBIS and GED current applied to both resistors and to skin.

Electric shock, employed as a decelerative consequence, has proven to be one of the most effective and most thoroughly researched behavior modification tools (Carr & Lovaas, 1983; Favell et al., 1982; Matson & Taras, 1989). In some cases, it has proven to be a life-saving treatment (Beck et al., 1980; Cunningham & Linscheid, 1976; Lang & Melamed, 1969; Watkins, 1972; Worsham, Israel, von Heyn, & Connolly, 1992). Linscheid, Iwata, Ricketts, Williams, and Griffin (1990) have recently summarized the advantages of using shock as a decelerative stimulus. They mention the following: capability of precise quantification; possibility of immediate, remote-controlled application; unobtrusiveness (when used with remote application); the discreteness of the stimulation; and the therapist's ability to select a safe level of stimulation. These conclusions coincide with that of others (Carr & Lovaas, 1983; Matson & Taras, 1989; Van Houten, 1983).

In 1988, we decided to employ electric shock as part of a court-authorized treatment program for several students for whom nonaversive programming, psychotropic medication, and several aversive procedures had previously failed. At that time there were only two commercially-available shock devices designed for use with humans, WhistleStop (Farrall Instruments, Inc., P.O. Box 1037, Grand Island, Nebraska, 68802) and the Self-Injurious Behavior Inhibiting System (SIBIS) (Human Technologies, Inc., 300 3rd Avenue North, St. Petersburg, Florida, 33701). Features of SIBIS discussed in this article are those of units manufactured during 1988-90. Other electric shock devices reported in the literature were either lab-built or designed for animals.

Both the SIBIS and WhistleStop consist of a stimulator worn on the student's body and a remote controller. Two types of remote controllers are available for the SIBIS. One is an accelerometer-activated controller worn by the student in a headband and automatically set off by a blow to the head. The other is a hand-held, button-activated controller. WhistleStop is supplied with only a hand-held controller.

We chose the SIBIS for use at BRI because of its recent design by the Johns Hopkins Applied Physics Laboratory in consultation with Linscheid and Iwata (Linscheid et al., 1990), its registration with the Food and Drug Administration as a medical device, and its use of a coded radio signal. This coding prevents the signal from one student's transmitter from setting off other SIBIS stimulators in use nearby. WhistleStop's signal is not coded.

We chose the hand-held remote controller to activate SIBIS because the inappropriate behaviors we planned to treat included topographies other than head-hitting and because, in treating head-hitting, we wanted to consequate the very earliest phase of any head-hitting behavior.

During the period 11-29-88 to 1-31-90, BRI purchased 13 SIBIS units from Human Technologies. BRI staff employed SIBIS with 29 different students, accumulating a total of 335-student-months of experience with the device. The average (median) student used SIBIS for a period of 367 days. Students who used SIBIS wore it 24 hours per day. BRI sent several technicians to the manufacturer's plant in Florida to be trained in how to repair the units.

Problems with SIBIS

Intensity

Linscheid et al. (1990) reported the SIBIS's current to be 3.5 mA, when applied to a 24 kΩ resistor. They did not specify whether this was the peak current or average current, as would be specified by the root mean square (rms) method. We tested a SIBIS unit purchased in September, 1989. When set at its maximum intensity level, and applied to a 24 kΩ resistor with a fully charged battery, it produced an average voltage of 48.6 volts (rms). Voltages were measured with an oscilloscope (Hitachi, Model VC-6045) and true rms voltmeter (Fluke Scopemeter, Model 97). Current calculated from these values was 2.025 mA (rms).

When compared to the shocks generated by WhistleStop and devices designed for use with animals, SIBIS, even when set at maximum intensity and fitted with fresh batteries, delivers a relatively mild shock. Therapists at BRI grew accustomed to testing SIBIS each day on their own thumbs or arms to make sure that it was in working order. Some individuals reported that they could hardly feel the stimulation, or could not feel the stimulation at all.

One problem with using a weak electrical stimulus in behavior modification is that it may not be strong enough to decelerate the target behavior. Even if it does have a mildly decelerative effect, numerous applications may be required to accomplish any significant deceleration, and this frequent use increases the likelihood of adaptation. (Azrin, 1956; Hamilton & Standahl, 1969; Holz & Azrin, 1962; Skinner, 1938). Research with both animals and humans suggests that for maximal effectiveness, an electrical stimulus should be as intense as possible, consistent with safety (Azrin, 1960; Carr & Lovaas, 1983; Van Houten, 1983).

After using SIBIS for several months, the device appeared to lose its effectiveness with several students, a result we attributed to adaptation. We then modified our units to produce a current of 3.4 mA (rms) when applied to a 24 kΩ resistor. In order to test the actual current of these units when applied to skin, 10 volunteers were enlisted. They each received a SIBIS stimulation while measurements were taken with an oscilloscope. Overall SIBIS voltage was measured, and at the same time the voltage was measured across a 100 Ω precision resistor in series with the skin shock circuit. Actual current was calculated from the latter measurement. The results of these measurements can be seen in Table 1 under the columns with an "S" heading. Both mean and median current of SIBIS stimulations to 10 volunteers were 4.4 mA (rms).

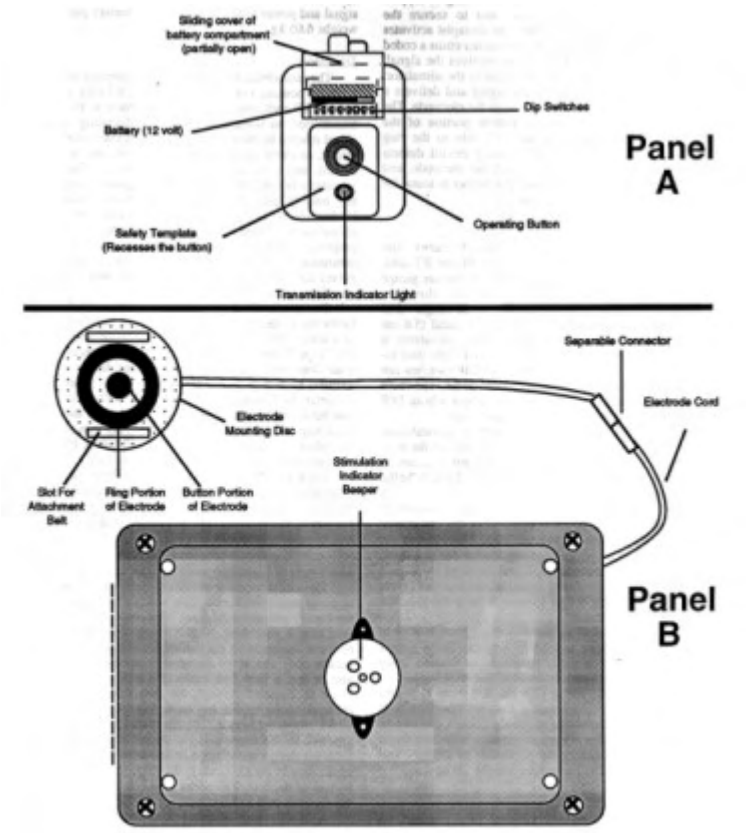


Figure 1. Diagram of GED showing transmitter in Panel A and stimulator, electrode cord, and electrode in Panel B.

Battery Replacement

SIBIS uses one non-rechargeable 9-volt battery. SIBIS's receiver board consumes a steady supply of power because it is constantly powered up, waiting for a transmitted signal. This constantly weakens the batteries, even without activation of the unit. Consequently, the actual intensity of any shock depends on the condition of the battery, and this depends on how long the unit has been in use, and on how many shocks have been delivered. When the supply voltage from the battery drops to 8 volts, a low battery indicator beeper sounds.

To keep the SIBIS output reasonably constant, we changed its battery every 12 hours**.** This resulted in additional expense of more than $160.00 per student per month. Frequent changing of batteries also resulted in discontinuities in the wires leading to the battery connector. These occurred either because they broke loose from the solder site or the wire itself broke from the repeated movement stress.

Duration

Duration of the SIBIS stimulation, for the units supplied to us, was fixed at 0.2 seconds by the manufacturer. User adjustment of duration was not possible. Clinicians using other devices have employed durations ranging from 0.2 s to 2.0 s (Carr & Lovaas, 1983). Research with animals has shown that decelerative effectiveness can be enhanced by increasing the stimulation duration (Church, Raymond, & Beauchamp, 1967).

Electrode Contact with the Skin

Because SIBIS's electrode is permanently attached to the housing of the stimulator, the skin sites to which the electrode can be applied are limited to those areas (usually arms or legs) to which the housing can be conveniently attached.

The manufacturer supplied us with a cotton pocket for holding the device against the skin, with a Velcro strap which wrapped around the arm or leg. A hole in this pocket, through which the electrode protruded, enabled the electrode to make contact with the skin. The weight of the stimulator often caused it to shift in the pocket, misaligning the electrode and the hole. Sometimes the entire pocket slipped down the student's leg or arm. We tried replacing the factory-supplied pocket with an elastic wrap to keep the device more securely in place, but this sometimes constricted circulation.

Indicator Beeper

SIBIS contains an indicator beeper which sounds when the stimulator receives a coded radio signal from its associated transmitter; however, receipt of this signal does not necessarily indicate that an electrical stimulation has taken place. For example, if the electrode is not making adequate contact with the skin when the stimulator receives the signal, the beeper sounds, but the stimulation is not actually delivered to the student's skin. Conversely, it is possible for an erroneous stimulation to be delivered to the student without the beeper being activated. For example, if some accidental equipment failure (rather than a signal deliberately sent by the therapist) were to activate the stimulator, the student would receive a shock, but the beeper would not sound. In such a case, the therapist would have no way of knowing that a shock had been delivered to the student, except by the student's reaction.

SIBIS's indicator beeper is situated inside the housing of the stimulator. The housing muffles the beeper's sound, and our therapists sometimes could not hear the beeper over the normal sounds of the classroom. As a result, therapists often had to move close to the student when activating the unit to listen for the beeper. Such approaches may inadvertently have provided potentially rewarding attention to the student immediately after having displayed an inappropriate behavior. In such cases the aversiveness of SIBIS may have been reduced or even overridden by the rewarding effects of this attention.

Range

A typical SIBIS unit, with its receiver circuits properly tuned, had a range of about 6.1 m. In some cases the range dropped to a meter or less, and its circuits required re-tuning in order to restore normal range. Inadequate range required the therapist to move close to the student, in order to successfully activate the stimulator. Again, these approaches occurring immediately after inappropriate behavior may have had unintended, potentially rewarding countertherapeutic effects.

Effectiveness

We employed SIBIS with 29 students. For two of these (7%) SIBIS was effective throughout its period of use. For 15 students (52%) SIBIS was effective during an initial period lasting from a few days to a few months; however, it lost its effectiveness thereafter. With one of these students there were indications that SIBIS even reversed its function, changing from an aversive stimulus into a positively reinforcing stimulus. For the remaining 12 (41%) SIBIS showed little or no effectiveness at any time. A more complete summary of our experience with SIBIS is in preparation .

GED Components and Operation

In order to remedy the problems described above and have ready access to repair capability and new units, we decided to design our own remote-controlled shock device, called the Graduated Electronic Decelerator (GED).

During the period December 1990 to August 1992, BRI manufactured 71 GEDs and used them with 53 different students, accumulating a total of 525 student-months of experience. As of August 1992 the average (median) student had used the device for a period of 10.3 months. When employed in a student's program, the GED, like the SIBIS, was worn 24 hours per day.

Figure 1 is a photograph of the GED components. Shown are transmitter (A), single-output battery pack (B), multiple-output battery pack (C), stimulator (D), electrode cord (E), and electrode (F).

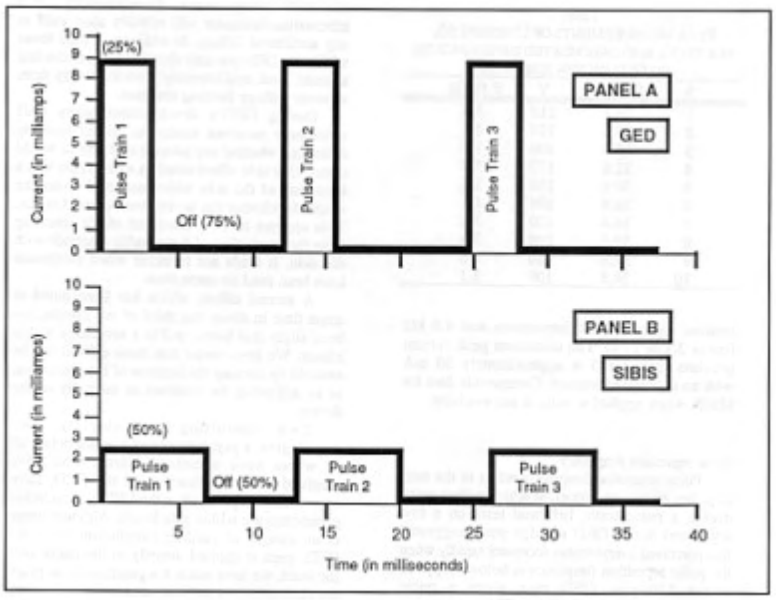


Figure 2. Train of direct current pulses of GED and SIBIS, when applied to a 50kΩ fixed resistor. Percentage in first pulse is duty cycle of device. Notice that the GED has a 25% duty cycle (current on) and 75% current off period.

When the transmitter button is depressed, a coded radio signal is sent to the stimulator. The stimulator's receiver circuit decodes the signal, and sends a train of unipolar, rectangular pulses to the electrode. The current passes through the patient's skin from the electrode's center button to its outer ring. A current-level sensing circuit detects the passage of this current through the electrode, and causes the stimulator's stimulation-indicator beeper to sound for the duration of the stimulation.

Transmitter and Receiver Systems

We use an "off the shelf" SECO-LARM RF Receiver (Model SK-910, 315 MHz)
TWO-CHANNEL RF RECEIVER

This receiver incorporates:
Hi-Q SELECTIVITY and a CODING IC for rejecting unwanted RF signals.
HIGHER SENSITIVITY for greater operating distances.
UNSURPASSED ANTENNA MATCHING CAPABILITIES so the receiver is less affected by where mounted.

GREATER TUNING STABILITY so the receiver's frequency remains unaffected by shock and vibration.

- Frequency 315MHz.
- 2 Mode switches (one for each channel) for easy transmitter learning.
- Learns up to 30 transmitters (15 for each receiver channel).
- Size: $3^1/_4$" x $3^3/_8$" x $1^1/_8$" (83 x 85 x 28mm).

The transmitter used is also “off the shelf” from SECO-LARM (model SK-919TD2A)
TWO-CHANNEL RF TRANSMITTER

- Frequency 315 MHz
- Operates up to 500 feet (200 meters).
- Over 68 billion possible codes.
- Compatible with SK-910R2,
- Size: $2^1/_4$" x $1^1/_4$" x $^1/_2$" (57 x 32 x 12mm).

An operating button and a transmission indicator lamp are located on the transmitter housing. The LED lights when the button is depressed and stays on until it is released, indicating that the signal is being sent.

The receiver is much like an FM radio. A code is derived from a signal comprised of high levels and low levels. .

The GED’s stimulator will not generate a stimulation until it has received a signal from the transmitter for a continuous period of 0.7 s. This reduces the chance of an unintended application due to a brief, accidental button press.

Battery Packs

Two types of battery pack systems are currently being used. One is used for the GED and one for the GED-4

The GED battery pack provides power to its associated stimulator at all times. This pack contains a 12 -volt rechargeable NiCd battery at 1600 ma (Panasonic P/N N124) enclosed in a plastic housing The GED-4 battery pack consists of twin NiCd Panasonic battery packs, P/N N124

Stimulator (GED)

The stimulator weighs 0.31 kg and consists of a plastic housing (14.6 cm x 9.1 cm x 3.3 cm), , a receiver/decoding circuit board set to the same code as the transmitter , a shock controller circuit board, an electrode connected to the stimulator by a cord, and a stimulation-indicator beeper. When the stimulator’s receiver/decoding circuit board receives a properly coded signal, the shock controller circuit generates a train of unipolar pulses through the electrode which activates the stimulation-indicator beeper for the duration of the pulse train, and the LED remains on for two minutes.

The electrode cord is made from flat 6-conductor telephone cable (Hirose Electric Co., Ltd., Part # H0063-ND) and connects to the stimulator by a modular connector (6-position offset latch, AMP Model #555237-3).

Two types of electrode are currently being used. The first is a "concentric ring" type, similar to that used by the SIBIS and described by Tursky (1965). It consists of a stainless steel button (diameter 9.5 mm,

thickness 3.25 mm) inside a stainless steel ring (outer diameter 21.5 mm, inner diameter 16.5 mm, thickness 3.25 mm), with 2.35 mm between the outer edge of the button and the inner edge of the ring. The button and ring are mounted on a plastic electrode mounting disc (60 mm x 19 mm) and protrude 4.0 mm above its top surface. The second consists of two stainless steel buttons (diameter 9.5 mm, thickness 3.25 mm) separated by a varying distance of up to six inches and mounted on flexible nonconductive material.

The stimulation-indicator beeper is a Mallory piezoelectric ceramic buzzer (PLD-27A 35W), rated at 95 dB. It is mounted inside the GED's housing and is loud enough to be heard in a noisy classroom.

Attachment of Stimulator and Electrode to Student

The student wears a modified "belt pack" (a zippered pouch worn around the waist) which holds the battery pack and stimulator. The electrode cord exits from a small hole in the back of the belt pack. The electrode cord and electrode are normally covered by the student's clothing.

If the electrode is attached to an arm or leg, a limb belt made of a cotton elastic blend is threaded through the two slots in the electrode mounting disc and secured around the arm with a suspender buckle. The electrode can also be attached to the torso using a longer belt. Other equipment has been designed to attach the electrode to the fingers or to the bottom of the foot. These attachment methods eliminate the need for elastic wraps or adhesive bandages to secure the electrode against the skin, enable a maximum amount of air to reach the skin near the electrode, and allow the electrode to be placed at a wide variety of body sites.

Parameters of GED Stimulation

In choosing parameters for the GED's electrical stimulation, our goal was to maximize decelerative effectiveness while minimizing any possible adverse effects on the skin. Wherever the shock literature did not contain information concerning decelerative effectiveness, parameters were chosen to maximize perceived aversiveness, as determined by tests on volunteer members of the BRI/JRC staff. All parameters except the waveform's rectangular shape can be changed by technicians.

Waveform. Each GED stimulation consists of a train of rectangular-wave unipolar pulses. A portion of a GED pulse train is depicted in Panel A of Figure 2. A portion of a SIBIS waveform is shown in Panel B of Figure 2 for comparison.

- - - - - - - - - - - - - - - - -

Insert Fig. 2 about here

- - - - - - - - - - - - - - - - -

Duty cycle. Duty cycle is the percentage of time that a pulse is on during a single on-off cycle. For example, as shown in Figure 2, Panel A, the GED pulse is on for 25% of each cycle. Current is on for 3.125 ms, and off for 9.375 ms. The total time for one cycle is 12.5 ms.

During the design of GED, eight volunteers tested the perceived aversiveness of the stimulation at 10%, 25%, and 50% duty cycles. They reported little perception of aversiveness at a 10% duty cycle, and definite aversiveness at 25%. They found the 50% duty cycle only slightly more aversive than the 25% duty cycle. Because the 50% duty cycle was thought more likely to cause skin irritation and was judged to be only slightly more aversive than the 25% duty cycle, we decided upon a 25% duty cycle for the GED. The duty cycle may be adjusted from 1% to 90%.

Current. When operated across a 24 kΩ resistor, the GED produces a voltage of 106.3 V (rms), and a current of 4.42 mA (rms). The corresponding peak values are 272 V and 11.33 mA.

In order to find out the level of current during actual stimulations, tests were conducted on 10 BRI staff members, who volunteered to participate. Each volunteer received one 200 ms application of GED to the forearm. Previous testing at BRI had shown that peak current was reached within the first 200 ms of a stimulation to the skin. The same measurements were taken as described earlier for actual SIBIS stimulations. Table 2 shows the results under the columns headed "G.". The median peak current for the volunteers was 29.2 mA (range 12.8 mA to 39.6 mA), and the mean was 29.6 mA. Median and mean rms currents were 14.6 mA and 14.8 mA, respectively. The median impedance for the 10 volunteers was 4.0 kΩ (range 3.1 kΩ to 13.4 kΩ); the mean was 5.0 kΩ.

The maximum peak current possible from GED, measured by applying GED to a 100 Ω resistor, was 56 mA. This level of current would not be generated when the device is applied to the skin, however, because skin has a typical impedance of two to five kΩ.

Pulse repetition frequency. Pulse repetition frequency refers to the rate, in pulses per second (pps), at which pulses occur within a pulse train. Informal tests on a few volunteers during GED's design phase suggested that perceived aversiveness decreases rapidly when the pulse repetition frequency is below 40 pps or above 120 pps. GED was given a pulse repetition frequency of 80 pps. (80 Hz) This setting may be adjusted by a technician to any value between 40 and 120 pps.

Duration. The duration of a single GED stimulation is completely adjustable. We have selected a duration of 2.0 seconds for the typical application.

For our test purposes, we use a 5 k Ω. load (5000 ohms), which most closely simulates average skin resistance. This produces 65 vrms output with a median current of 13 mA for the GED and a 130 vrms output with a median current of 26 mA for the GED-4.

Safety Issues

GED's stimulation-indicator generates a tone only if current passes through the skin between the stimulator electrodes. Consequently, it reliably alerts staff to any accidental firings. In addition a dual timer prevents the duration from exceeding a preset level, and intensity is limited by a voltage limiting varistor and a current limiting resistor.

During the GED's development several BRI staff members volunteered to receive stimulations to evaluate possible adverse side effects to the skin. One side effect noted in a few cases was a browning of the skin immediately under the electrode. This occurred whether the device was operated or not, and appeared to be a chemical effect resulting from the interaction of the metallic electrode with the skin. It tended not to occur when electrodes had been used for some time.

A second effect, which has been noted at some time in about one third of our students, has been slight erythema and, in a few cases, a skin blister. We have found that these effects can be avoided by altering the location of the electrodes or by adjusting the duration or voltage of the device.

Two consulting cardiologists, two neurologists, a psychiatrist, and a pediatrician, all of whom have examined students who have received many applications of the GED, have expressed the opinion that the GED's stimulation parameters are within safe levels. Although there is no danger of cardiac stimulation from the GED, even if applied directly to the chest over the heart, we have made it a practice not to place the electrodes over the heart area.

References

Azrin, N. H. (1956). Effects of two intermittent schedules of immediate and nonimmediate punishment. Journal of Psychology, 42, 3–21.

Azrin, N. H. (1960). Effects of punishment intensity during variable-interval reinforcement. Journal of the Experimental Analysis of Behavior, 3, 123–142.

Beck, G. R., Sulzbacher, S. I., Kawabori, I., Stevenson, J. G., Guntherof W. G., and Spelman, F. A. (1980). Conditioned avoidance of hypoxemia in an infant with central hypoventilation. Behavior Research of Severe Developmental Disabilities, 1, 21–29.

Butterfield, W. H. (1975). Electric shock hazards in aversive conditioning of humans. Behavioral Engineering, 3, 1–28.

Carr, E. G. and Lovaas, O. I. (1983). Contingent shock treatment for behavior problems. In S. Axelrod & J. Apsche (Eds.), The effects of punishment on human behavior. (pp. 221–245). New York: Academic Press.

Church, R. M., Raymond, G. A., and Beauchamp, R. D. (1967). Response suppression as a function of intensity and duration of a punishment. Journal of Comparative and Physiological Psychology, 63, 39–44.

Cunningham, C. E. & Linscheid, T. R. (1976). Elimination of chronic infant ruminating by electric shock. Behavior Therapy, 7, 231–234.

Favell, J. E., Azrin, N. H., Baumeister, A. A., Carr, E. G., Dorsey, M. F., Forehand, R., Foxx, R. M., Lovaas, O. I., Rincover, A., Risley, T. R., Romanczyk, R. G., Russo, D. C., Schroeder, S. R., and Solnick, J. V. (1982). The treatment of self-injurious behavior. Behavior Therapy, 13, 529–554.

Hamilton, J. & Standahl, J. (1969). Suppression of stereotyped screaming behavior in a profoundly retarded institutionalized female. Journal of Experimental Child Psychology, 7, 114–121.

Holz, W. C., and Azrin, N. H. (1962). Recovery during punishment by intense noise. Psychological Reports, 11, 655–657.

Lang, P. J. and Melamed, B. G. (1969). Avoidance conditioning therapy of an infant with chronic ruminative behavior. Journal of Abnormal Psychology, 74, 1–8.

Linscheid, T. R., Iwata, B. A., Ricketts, R. W., Williams, D. E. & Griffin, J. C. (1990). Clinical evaluation of the self-injurious behavior inhibiting system (SIBIS). Journal of Applied Behavior Analysis, 23, 53–78.

Matson, J. L. & Taras, M. E. (1989) A 20-year review of punishment. Research in Developmental Disabilities, 10, 85–104.

Skinner, B. F. (1938). The behavior of organisms. New York: Appleton.

Tursky, B., Watson, P. D., and O'Connell, D. N. (1965). A concentric ring electrode for pain stimulation. Psychophysiology, 1, 296–298.

Van Houten, R. (1983). Punishment: From the animal laboratory to the applied setting. In S. Axelrod & J. Apsche (Eds.), The effects of punishment on human behavior. (pp. 13–44). New York: Academic Press.

Worsham, R. W., Israel, M .L., von Heyn, R. E., and Connolly, D. A. (1992). Treatment of life-threatening vomiting and rumination with contingent electric shock. Unpublished manuscript.

Watkins, J. T. (1972). Treatment of chronic vomiting and extreme emaciation by an aversive stimulus: case study. Psychological Reports, 31, 803–805.

Author Notes

Matthew L. Israel conceived of the GED and prepared the final manuscript. Robert von Heyn designed and supervised the parametric testing and assisted in the manuscript preparation and editing. Dan Connolly assisted in the parametric research and the manuscript preparation and editing. David Marsh designed the GED.

The authors gratefully acknowledge the technical contributions of Chris Mello, Richard Levinson, Vandy Sou, Dan Hey, and Karl Weisker in the design of GED, and Thomas Kearney for his exhaustive researching of the shock literature. In addition, the comments of Bob Worsham on the manuscript, and the advice of Drs. Paul E. Zoll and Tadeusz Gotlib concerning the safety of GED, were invaluable.

Attachment I

ENFORCER® WIRELESS | 2-Channel RF Transmitter & Receiver

SK-919TD2A-UP SK-917T2A-U Fixed-Code RF Transmitter CODEBUMP™ Transmitter

2¼" x 1¼" x ½" (57 x 32 x 12 mm)

With SECO-LARM's Patented CODEBUMP™ anti-codegrabbing technology, the transmitter's code changes every time the transmitter button is pressed to one of 18 quintillion (1.8×10^{19}) possible codes.

- Operates up to 500 feet. 315 MHz.
- LED transmission indicator.
- Includes 12VDC alkaline battery.
- Compatible with all SECO-LARM receivers.

SK-919TD2A-UP: Fixed-code transmitter, pre-programmed to one of over 68 billion possible codes.

SK-919TD2A-U: Same as SK-919TD2A-UP, but uncoded.

SK-917T2A-U: Similar to SK-919TD2A-UP, but with SECO-LARM's Patented CODEBUMP™ anti-codegrabbing technology, over 18 quintillion possible codes.

SK-910R2 Two-Channel Receiver (11 to 24 VAC/DC)

3¼" x 3⅜" x 1⅛" (83 x 85 x 28 mm)

Increase range with SECO-LARM's Extended Range Antennas.

- Control garage doors, house lights, alarm panels, or other devices via remote control.
- Compatible with all SECO-LARM transmitters (fixed-code and CODEBUMP™).
- 2 LEDs indicate RF reception, learn mode entered, transmitter learned, memory cleared.
- 2 Mode switches for easy transmitter learning.
- See page 4 Specification Chart for more details.

SPECIFICATIONS:

	SK-910R2
Operating Distance:	Up to 500 feet (open air)
Operating Temperature:	-4°~162° F (-20°~72° C)
Current Drain:	8mA at 12VDC (standby), 45mA at 12VDC (LED flashing)
Sensitivity:	-87dBm (typical)
Data Format:	PWM
RF Codes:	68 billion
Coded Channels:	Two
Stored Transmitter Codes:	15 per channel
Receiver Outputs:	Form "C" dry relay contact (N.O./N.C./Com.); max. 8 Amp @ 24VDC
Receiver Output Modes:	Programmable 4-sec. momentary (default), 1-sec. momentary, toggle, or latch

SECO-LARM® 16842 Millikan Avenue, Irvine, CA 92606 Tel: 1-800-662-0800 (Domestic U.S. & Canada)
Tel: 1-949-261-2999 (California & International) Fax: 1-949-261-7326 Email: info@seco-larm.com Website: www.seco-larm.com

Attachment J

Commonwealth of Massachusetts
Department of Early Education and Care Report,
Investigation Report, Incident# 4037
Dated November 1, 2007

The Commonwealth of Massachusetts
Department of Early Education and Care
21 Spring Street, Suite 2, Taunton, Massachusetts 02780
Date: November 1, 2007

INVESTIGATION REPORT

Incident # : 49037 Facility # : 4904051
Name of Facility: JRC - 66 Kevin Clancy Way
Address: 66 KEVIN CLANCY WAY, STOUGHTON, MA 02072-3888

Intake Date: **08/27/2007**

Report Date:

Facility Description: The JRC Stoughton Residence is a single family with two floor levels. There are 7 bedrooms, a living room, recreation room, dining room and 4 bathrooms. The residence has a licensed capacity for 12 boys.

Reason for Investigation: The program notified the Department of Early Education and Care (EEC) that [redacted] Report had been filed with the [redacted] on behalf of a [redacted] year- old resident in the program. A report had also been filed with [redacted] on behalf of a [redacted] year- old placed in the program. Both residents' received unwarranted GED shocks which were administered by staff on the [redacted] shift at the request of an unknown caller.

Investigation Activities: On August 29, 2007 a visit made to JRC program along with Investigator, [redacted] from the [redacted] who is investigating on behalf of the [redacted] year- old resident. Investigator, [redacted] from the [redacted] and Social workers, [redacted] and [redacted] from [redacted] who are investigating on behalf of the [redacted] year old resident. Investigators met with Joseph Assalone, Director of Student Services and reviewed video footage of the night/early morning of 8/26/07. Both Residents [redacted] and [redacted] were interviewed by investigators. Follow up visits were made to the program on 8/30, 8/31, 9/5, 9/6, 9/7 and 9/10/07 by EEC, [redacted] and [redacted] Investigators at which time interviews were conducted with necessary staffs.

Contacts Interviewed:
Joe Assalone, Director of Student Services
Five (5) Mental Health Assistants
Dr. Von Hyem, Director of Clinical Services
Glenda Crooks, Assistant Executive Director
Three (3) Quality Control Staff (DVR Monitors)
Charles Njogu, High Crisis/ Security Specialist
Dr. [redacted] Clinician
[redacted] LPN

Documents Reviewed:
[redacted] Reports
Critical Injury Reports
Three Resident Files
Internal Investigation
Staff Records and Training
DVR Monitoring logs, dated *8/26/07*
GED Policy /Program Rules & Policies
JRC Notification Procedures (past and present)

Roland Porkpah, Quality Control

Determinations:

-The investigation has found sufficient evidence to conclude that staff [redacted] was physically abusive towards two residents placed in the program. [redacted] allegation of physical abuse of the residents [redacted] and [redacted] by staff [redacted] It is the judgment of the Department that staff [redacted] had engaged in conduct which bears adversely upon his ability to provide for the safety and well being of a child.

-The investigation found sufficient evidence to conclude that the Stoughton House staffs were neglectful in the care of residents [redacted] and [redacted] The program staff failed to protect the health and safety of the identified residents. [redacted] the allegation of neglect of the residents by all staff. It is the judgment of the Department that the staff had engaged in conduct which bears adversely upon their ability to provide for the safety and well being of a child.

-The Staff failed to follow JRC policy and training regarding medical treatment and failed to communicate relevant information to nursing regarding residents [redacted] and [redacted] condition. This resulted in delay of medical attention for both residents.

-The Licensee and Administration failed to provide a program that was administratively sound with clearly conceived policies and practices for the services provided to residents. It is the investigation finding that programmatic issues were a contributing factor in the events that took place on 8/26/07.

- The investigation had found sufficient evidence to conclude that staff [redacted] lacked the necessary training and experience to carry out responsibilities of an overnight supervisor.

-The licensee failed to have staff with adequate training on shift to ensure the proper administration of the program policies.

-The staffs failed to follow JRC policies and procedures as it relates to behavior management.

- The staffs used poor judgment and failed to follow resident [redacted] and [redacted] Treatment plan and Daily Recording Sheets.

-The staff failed to monitor the residents in a manner that assured there health and safety. The staff failed to provide a safe environment for the residents in care.

- The staff violated the programs communication policy and neglected their responsibilities as a mandated reporter.

-Staffs [redacted] and [redacted] were neglectful in their responsibilities as monitoring staff thus compromising the supervision and the safety of the residents.

Investigation Findings:

• On the night of August 25-26, 2007, the following six staff was on duty at the Stoughton residence. Two of the staff had worked a triple shift and had been with the residents since 7am on 8/25/07. Three of the staff had worked a double and had been with the residents since 4pm on 8/25/07. Staff [redacted] was the only one that had not been with the residents throughout the day, he had come on shift at 10pm on 8/25/07. The investigation noted that four of the staff had been employed for less than 3 months at JRC.

• The licensee reported that during the early morning hours of August 26, 2007, a former resident, [redacted] (a [redacted] year- old resident who had been AWOL from JRC custody two weeks prior to the incident) had called the Stoughton residence. It was reported that resident [redacted] had posed as one of the quality control monitors, [redacted] from DVR Monitoring System. Over several hours [redacted] gave a series of instructions to the Stoughton residence staff to awaken three residents [redacted] and [redacted] and administer several skin shocks for behaviors that they had exhibited earlier in the evening. The licensee reported that resident [redacted] had intimate knowledge of the students who resided in the home, the staff who worked there as well as how the residence operates. One staff, [redacted] thinking that he was speaking to an authorized person from DVR monitoring began to comply with every direction given. The other staff also followed instructions as directed. [redacted] continued to make a series of phone calls to the Stoughton House between the hours of 2:00am and approximately 4:45am, during which time he continued to portray himself as [redacted] from DVR and made accurate statements about staffs positioning in the house. Resident [redacted] was consequently administered 29 GED applications and resident [redacted] was administered 77 GED applications in a three hour period. Prior to administering GED applications to resident [redacted] the staff called the JRC monitoring directly at which time they learned that they had not been speaking with DVR.

• The licensee reported that both residents [redacted] and [redacted] were evaluated by the JRC nursing staff, JRC's physician, as well as their treating clinician, Dr. [redacted] The students were reported to be found to be in good health. The skin shock devices were removed from the both students and they were relocated to another residence. [redacted] reported that resident [redacted] was further examined at [redacted] Hospital on [redacted] and was reported to have two areas of first degree burn related to the presence of the GED.

• Following the reported incident, The JRC Administrative staff was contacted and an internal investigation was initiated. The license reported that all necessary collaterals and each students' parent/guardian was notified as of the incident as well as and each students' court appointed attorney. A report was also filed with Officer Duke at the Stoughton police station. The licensee reported that six Stoughton staffs and the assigned DVR monitor were consequently suspended pending the outcome of the investigation.

• The licensee reported that they became aware that the caller was resident [redacted] because he called back into the DVR monitoring system and his voice had been recognized by the staff. It was reported that resident [redacted] had admitted to being the person that called the Stoughton residence during the previous night instructing the staff to administer the shocks. During the investigation it was learned that [redacted] had also spoken with his clinician, Dr. [redacted] as well as a resident of the Stoughton House and admitted his actions. The Stoughton Police were updated with this information and provided his family's address and phone number and plan on prosecuting him to the fullest extent.

• [redacted] is a 16 year old male, from [redacted] presently is in [redacted] was admitted to the Judge Rotenberg Educational Center (JRC) on [redacted] current guardian ([redacted]) has signed consent forms for all JRC's treatment procedures. It was reported that since placement [redacted] had not exhibited many major inappropriate behaviors and often performed extremely well. It was reported that prior to the reported incident, resident [redacted] had not received a GED since [redacted] Resident [redacted] was discharged form JRC on [redacted] and had returned to [redacted]

• [redacted] is a [redacted] year- old male, from [redacted] [redacted] was admitted to the Judge Rotenberg Educational Center (JRC) on [redacted]. [redacted] had signed necessary consent for all JRC treatment procedures. It was reported that [redacted] knew his program and did not deviate from it. Resident [redacted] had had not exhibited any behaviors that warranted a GED since [redacted]. Resident [redacted] remains in the JRC program but no longer receives GED applications.

• Resident [redacted] ([redacted]), age [redacted] years old. Resident [redacted] is from [redacted] and does not have approved Movement Limitation or Aversive Shock (GEDs) in his Treatment Plan. Resident [redacted]'s clinician and parent are to be contacted for an approval consequence. Resident [redacted] remains in the JRC program.

• Both residents [redacted] and [redacted] were interviewed during the investigation and had reported that they had been awoken from their sleep when they received GEDs shocks that were administered by staff [redacted]. Both residents reported receiving additional applications while strapped to the 4-point board in the recreation room. Both residents' reportedly had asked staff [redacted] "what they did" and was told that they were being consequated for behaviors they had exhibited during the 9:00pm hour. The residents had denied having any behaviors during the identified time period. Both residents had complained of pain related to the applications received and requested that the nursing staff be called. The residents reportedly were not seen by the nurse until the following day at which time pictures were taken of their injuries. Resident [redacted] was unavailable during the investigation but was later interviewed by [redacted].

• All Direct care staff were interviewed and had confirmed the incident as reported however there were some noted discrepancies in the staffs' accounts of the reported events. The staff reported that the evening and night shift went well and there had been no issues with any residents. All staff reported that they had not observed either resident exhibit the behaviors alleged by the DVR caller but assumed that DVR had. It was reported that staff [redacted] had administered the aversive application at the direction of DVR monitoring staff (an unknown caller) and did not consult with or pre-verify anything with any other staff. Three staff (sleep aides) reported that they were asleep when residents [redacted] and [redacted] received GED application in their bedroom. DVR revealed that sleep aides were awoken by the commotion and had responded (approximately 2:43am) to the area where staff [redacted] and [redacted] explained what had transpired. Staff [redacted] reported that he had not been aware that resident [redacted] had received GED shocks while sleeping. Staff [redacted] reportedly had been doing assigned chores. Video Surveillance revealed that staff [redacted] had been aware of the events and had consulted with staff [redacted] prior to his administering the applications. Staff [redacted] had also been observed briefly speaking with the caller. Both staff, [redacted] and [redacted] were observed reviewing the resident Recording Sheets, prior to administering any applications.

• All Stoughton staff on shift had acknowledged that they had at some point participated in and/or observed the events occurring with residents [redacted], [redacted] and [redacted]. The staff had not made any individual efforts to assure the appropriate procedures were being implemented. Staff reported that they had followed procedures the same way they received them from the DVR caller. It was reported that staff were not in agreement with the events however followed instructions because they believed that it was DVR on the phone and felt that they could not go against DVR. Reportedly, staff were apprehensive but the caller told them that they would be "Evaluated" if they did not follow instructions. Staff reported that they assumed that they were being watched because the caller seemed aware of staffs actions and accurate positioning inside the house, also because no Quality Control staff had shown up to the house. The investigation noted that the staff observed (on DVR) continually expressing concern and appear reluctant to participate.

• Staff reported that it was unclear as to who was supervising the shift at the time of the events because staff [redacted] had been giving the instructions. The investigation noted that on 8/26/07 staff [redacted] (being the most senior awake staff on shift) was assigned the role of supervisor. Staff [redacted] failed to take control of the shift and direct staff in an appropriate manner. Staff [redacted] did not take any steps to prevent or intervene during the reported events but instead advocated to other people. Staff [redacted] reported that he had only been employed at JRC for 3 months to the day and was not familiar with delayed consequences and had no prior experience with administering aversive treatment. Staff [redacted] acknowledged that he had been flustered and had looked to senior staff for direction.

• The staff failed to meet resident's [redacted] and [redacted]'s health needs. The staff did not evaluate residents [redacted] and [redacted] after they complained of pain, nor did staff notify the on-call nursing. DVR revealed that resident [redacted] had informed several staff on different occasions

his leg was "killing him" and could be heard asking staffs to call the nurse. Three staff had recalled that resident [redacted] had complained of leg pain. One staff reportedly had observed that resident [redacted] was walking with a minor limp. It was reported that staff [redacted] was made aware [redacted]'s complaint and blew it off. Staff [redacted] did not recall resident [redacted] complaining of injury. Staff [redacted] reportedly had attempted to call the nurse later on but got no answer. One staff had recalled the resident [redacted] complained of abdomen pain but had not requested to see a nurse. DVR revealed that (at 4:32) resident [redacted] had told staff [redacted] (who remained with him in the apartment) that he was sweaty, his mouth was dry, blood pressure was racing and he felt as though he was about to have a stroke. The resident had asked and was given water at that time but was otherwise not evaluated by any staff. It was reported that resident [redacted] had complained but he was unsure whether or not he was being truthful. It was reported that it was not unusual for residents to complain after receiving application. Residents [redacted] and [redacted] were not seen by the nursing staff until the following [redacted].

• The staff did not verify that the caller was actually a DVR monitoring staff. Staff reported that they had tried to talk to the caller but he only wanted to speak with staff [redacted] It was reported that there was only one phone line into the house and staff [redacted] was afraid to hang up the phone because he thought he would be evaluated. It was further reported that staff could not identify where the call was coming from because there was no caller ID on the phone in the kitchen and cordless phone was not fully charged and kept shutting off. Reportedly, the internet had been down as well therefore staffs did not have access to personnel or emergency contact information. Staff further reported that attempts had been made to call DVR when the phone was clear but the person would call right back on the other line. It was reported that staff [redacted] had attempted to call DVR from his cellular phone but could not get service. Reportedly staff [redacted] had eventually took the phone from staff [redacted] and called the real DVR directly at which time it was learned that they had not been speaking with DVR. .

• The investigation noted that there were several opportunities and options staff could have taken to verify that they were receiving instructions from DVR Monitoring. Staff [redacted] could be observed on video surveillance in the kitchen by the phone, while the caller was on the line and did not take the initiative to speak with or question the caller. At least three other staff were observed briefly speaking with the caller at different times throughout the night but would always return the phone to staff [redacted]. There were at least two other occasions when the phone was not in use and staff did not attempt to call at those times. The investigation noted that the phone numbers of program administration, caseworkers and clinicians were available in the house and were accessible to staff. DVR video surveillance showed staff [redacted] removing the list from the kitchen wall.

• The investigation found that the Stoughton staff did not follow resident [redacted], [redacted] and [redacted]'s Treatment plan or Recording Sheets. Staff reported that they had not followed JRC pre-verification process as trained because the caller had insisted that he had approval from Sue Parker and Glenda Crookes, who is the chief administrator. The staff had administered unwarranted GED applications to two residents. The staff unnecessarily

restrained residents [redacted] and [redacted] on the 4-point board. Review of video surveillance revealed that both residents [redacted] and [redacted] were cooperative and compliant at the time they were placed on the board. Resident [redacted] was restrained to the 4- point boards and was not approved for this "movement limitation" treatment. The investigation further noted that resident [redacted] remained in transport restraints (waist and legs) while he was in bed. DVR revealed that resident [redacted] had remained in transport restraints for approximately 45 minutes. The investigation noted that staff [redacted] denied that he had administered the GEDs to the residents while they were sleeping. Video surveillance revealed that staff George entered both resident [redacted] and [redacted] bedroom while they were sleeping and administered GED applications, which startled him out of his sleep.

• Staff acknowledged concerns of a possible crisis and stated that other residents had woken up and were looking into the hallway. It was reported that residents were told not to get involved and to go back to bed. It was reported that students had continually expressed concern and had told staff that the identified residents did not have behaviors. The residents had pleaded with staff to call and make sure that it was really DVR on the phone. Staff reportedly did not respond to the residents request and stated that they (residents) would lie to avoid consequences. Staff [redacted] had reported that at one point residents appeared ready to aggress. DVR revealed that most residents were awake during most of the events and could be heard yelling that it was a prank and that staff should verify it with DVR.

• All staff reported that they had continually checked on the other residents to make sure they were safe. DVR revealed that the staff were not appropriately monitoring the residents throughout the shift. There had been one staff upstairs with the residents during the events while 5 others had been dealing with the identified residents. DVR further revealed two occasions when all staff could be observed standing in the kitchen area talking amongst them and residents on the fist floor were not being monitored at all during that time.

•Staff reported that they take directions from DVR or the resident's clinician however did not know that they could call the clinician or case manager directly. Staff reported that DVR was watching at all times and would call staff if a resident was observed "breaking contract". Staff reported that DVR would instruct them to consequate a resident for a behavior if it was on the residents Recording Sheet. Staff reported that they had never, nor had they ever known any staff person to wake up a sleeping resident to give GEDS. Staffs reported that it was specifically stated in the training that residents were not to receive GED application when sleeping.

• The Stoughton staff acknowledges that although staff were informed that the authorization came from [redacted], staff did not follow each and every step of the GED procedure as trained. The staff reported being were unfamiliar with the use of aversive treatment, delayed consequences or reporting abuse and/or neglect. Staff [redacted] acknowledged that he did not really evaluate the situation because of the confusion. Staff [redacted] stated that he assumed that it was a test from Quality Control (QC) to find out if he was following procedure. Other staff reported that they thought that it was a "Program

OP". It is the investigations findings that the staff's inexperience and insufficient training (as it relates to the care of the residents) contributed to the reported events.

• ***Resident*** [redacted] stated that he was resident [redacted] roommate at the time of the reported incident. Resident [redacted] recalled that he had woken up to his roommate [redacted] screaming and reported that [redacted] had received a GED application while he was sleeping. Reportedly [redacted] had been screaming loud enough for everyone in the house to hear. He reported that resident [redacted] had told staff that his leg was killing him. Resident [redacted] recalled that resident [redacted] had also received GEDs while he was sleeping and had complained about his stomach. Resident [redacted] expressed that he was worried about his roommate but did not get involved. Resident [redacted] reported that he did not believe that was DVR on the phone and had told staff this. Resident [redacted] reported that he had never seen anything like what had happened with residents in the Stoughton House. Resident [redacted] stated that he then thought that it was a "Program OP" and went on to describe incidents that would be considered a JRC "program op". Resident [redacted] reported that residents are familiar with their own Program Sheet but do not have access to others. He continued to report that residents know each others behaviors because they hear when staff pin point other residents.

• ***Resident*** [redacted] reported that he had been resident [redacted] roommate at the time of the incident. He stated that he had been woken up by the commotion. He reported that [redacted] was upset and yelling because he had received GEDs while sleeping. Resident [redacted] stated that he did not observe resident [redacted] get any GEDs however had recalled that resident [redacted] had complained to staff that his leg was hurting and requested that the nurse be called. Resident [redacted] reported that he had never seen other student's Recording Sheet but that it was accessible when left unattended.

• [redacted] is a LPN at JRC and reported that nursing was not notified about either resident's [redacted] or [redacted] concerns during the early morning of 8/26/07. It was reported that both residents were seen by nursing the day following the incident. Staff [redacted] reported nursing became aware of the reported events from another resident who was being seen. It was reported that DVR had later called nursing and explained what had happened and sent residents to be medically evaluated. Resident [redacted] had reported that he was shocked on the abdomen and was observed to have marks on his upper body related to the GED but nothing severe. It was reported that the area was observed to be red and irritated. Mr. [redacted] reported that the GED application can cause friction if moved around. It was reported that nursing should have been contacted when resident [redacted] complained of racing blood pressure and feelings of a possible stroke.

• Staff [redacted] reported that resident [redacted] was not limping or complaining of pain when seen but was observed to have fresh marks on the middle lower area of his left calf. It was reported that the skin was off of the area which he diagnosed as a stage two ulcer. It was reported that the area identified was the same area where resident [redacted] had received shocks. It was reported that the electrode device was removed from [redacted] leg because the area on was too bad to keep the device on. Mr. [redacted] reported that he had never seen a bruise from the GED device like resident [redacted] had and stated that nursing should have

been called for such an injury. [redacted] was also observed to have older marks on each deltoid area that were large and irregular looking that were possibly from the GED.

• It was reported that nursing staff is on duty until 11:00pm daily and the Nursing Director available 24 hours a day for emergency calls. Staff [redacted] reported that it is not a typical for a resident to say that they have injuries following a GED application. It was reported that typically staff would not call a nurse when a resident voices that he is in pain from a GED application and described it as a pinch.

• ***Dr.*** [redacted] reported that he is the clinician assigned to residents [redacted] and [redacted] Dr. [redacted] reported that the students at the Stoughton residence are high functioning students and do know their treatment plans. It was also reported that some students are high risk students and have a tendency to try to manipulate staff. Dr. [redacted] reported that staff are to maintain professionalism when dealing with the students. It was reported that staff can not socialize with the students but it is fine for staff to listen to the students. Dr. [redacted] reported that he had never seen anything happen like this before at JRC. He reported the events were outside of the norm and should have raised questions for staffs. Dr. [redacted] reported that the GED procedure was explained to staff in training and reported that the Stoughton staff had done things contrary to the teachings and training experiences at JRC.

•Dr. [redacted] reported that he is available 24 hours and all residences have his contact information. Dr. [redacted] stated that he is usually contacted by DVR with resident concerns but that direct care staff can and have paged him as well. Dr. [redacted] reported that at no time on 8/26/07 did the staff at the Stoughton house call him questioning DVR directions or with any other concerns. Dr. [redacted] expressed concern that staff did not know to call the clinician and stated that they call him frequently about trivial things. Dr. [redacted] reported that resident [redacted] had called him on that following [redacted] and had admitted that he had called the Stoughton residence and had staff administer GED to residents.

•***Monitoring Staff,*** [redacted] had been employed at JRC since [redacted] and had been working as a Quality Control Staff for 5 about months. Staff [redacted] reported that he had worked the 12am to 8am shift on 8/26/07 and worked along side staff [redacted] and [redacted]. Staff [redacted] stated that he had been assigned to monitor the Stoughton residence and had placed a call into the Stoughton house at the beginning of his shift. Staff [redacted] reported that he was in charge of monitoring a total of 11 houses and reportedly would rotate consistently through the screens throughout the night, checking for concerns in each house. Staff [redacted] stated that he had gone on a break from 3:30am to 4:15am and staff [redacted] was in charge of monitoring his assigned houses during that time. Staff [redacted] reported that he had checked on the Stoughton house prior to taking his break and had observed no unusual behavior. He further stated that no one from the Stoughton residence had contacted DVR regarding any concerns prior to his break. It was reported that staff [redacted] was also responsible for monitoring assigned houses and the students on [redacted] constant watch list while he was on break (2:30am until 3:15am).

• Staff [redacted] reported that all monitoring staff had observed the events at the Stoughton House at the same time and had responded accordingly. All monitoring staff had reported that a resident was appeared to be improperly restrained on the board. Reportedly, staff [redacted] had called the residence several times before finally getting through and explaining to the staff that they were not giving the restraint properly. It was reported that staffs seemed distrustful and confused. It was reported that staff could be observed (on DVR) arguing amongst each other and refused to speak to the monitoring staff. It was reported that there appeared to be a communication issue amongst the staff at the Stoughton House. The call reportedly was disconnected at which time staff Tarlue left to go see what was going on at the program and she called the Stoughton House.

• The investigation noted that staffs [redacted] and [redacted] account of the events were consistent with that reported by staff [redacted] with the exception of the reported time of observance. The investigation noted that staff, [redacted] had worked as a Quality Control staff at the Stoughton house from 4:00pm until 11:00pm and reported that there were no concerns at the Stoughton residence that night. Staff [redacted] reported that he had covered for staff Tarlue when he went on break. Staff [redacted] reported that he did not check on the Stoughton Residence because it was not a house of concern.

• It was learned that staff [redacted] had not been monitoring the Stoughton residence as required therefore compromising the supervision and the safety of the residents. Review of the DVR log for the overnight shift on 8/26/07, indicted that the communications to the Stoughton house had been disconnected from 12:45am until 4:41am. In addition, staff [redacted] failed to contact each residence at the start of the shift and inform the staff that he was assigned to monitor their residence. Further, staff "Fire" failed to follow the JRC policy and neglected his job responsibilities. The monitoring staffs' failure to intervene during the events led the Stoughton staff to believe that they were in direct contact with DVR.

• ***The Quality Control Program Director, Roland Porkpah*** reported that DVR supervises the overnight shift but the most experienced person is expected to run the shift. It was further reported that all DVR monitoring staffs are equal and no one is directly in charge of the shift. It was reported that it is the assigned DVR monitoring staff's responsibility to view all assigned houses to assure that staff were awake and performing their duties. It was reported that it is the expectation that staff cover each other during breaks at which time that staff person must monitor their own houses as well as the ones they area covering.

• Mr. Porkpah reported that DVR monitors use video monitoring and watch live footage; they reportedly do not cover previous footage from the day. Ms. Porkpah reported that at the time of the existing JRC policy DVR staff could be a verifier and if they saw an incident they would speak and verify the behavior with the direct care staff. It was reported that the direct care staff have the students Recording Sheets and can question DVR if they disagree. It was further reported that direct care staff could contact the resident's clinician directly. Mr. Porkpah reported that DVR staff should not be giving a delayed consequence and must contact the resident's case manager or clinician.

• It was reported that there were no students from Stoughton House watch list on 8/26/07, however the Stoughton House is a high crisis residence and should have always remained open. It was reported that Administrative staffs are available 24 hours for all DVR concerns and staffs have list of who notify for various incidents. It was reported that staff are to immediately report if they are unable to access a house due DVR failure. It was reported that there were no technical difficulties with the monitors that staff [redacted] was utilizing.

• ***The Assistant Executive Director, Glenda Crookes*** reported that she had interviewed all involved staff and all staff insisted that the person on the phone had been watching them. It was reported that both [redacted] and [redacted] felt that they were being watched by someone who knew what was going on in the house at the time. Ms. Crookes stated that the JRC utilizes state of the art security systems which outside sources are unable to hack into. It was reported that no person is able to log onto the house from an outside agency. She reported that the JRC program administration were able to log on however it would be documented on the DVR log. It as reported that the logs were reviewed and showed no record that any JRC administrative staff had logged on to the Stoughton house on 8/26/07. Ms. Crookes further reported that DVR monitoring system themselves had not been logged into the house the entire night of 8/26/07. It was reported that monitoring staff had called the Stoughton residence at 4:52am and phone calls were consistently made to the home thereafter. The investigation noted that DVR staff arrived to the Stoughton residence about one hour after viewing the events on the monitoring screen.

• Based on the actions and expressed opinions of the staff it can be ascertained that the JRC program polices were set up in such a way that it took decision making away from the staff. The staff were unclear on who was the responsible person(s) for the administrative supervision of the program and failed to exercise any independent judgment in the matter. Staff reported that DVR was in charge and therefore they did not "step up". The program staff did not feel empowered enough to intervene or question the actions of DVR. The staff's philosophy that "DVR is in charge and makes all the decisions" caused an unsafe environment and potential crisis situation.

• The licensee reported that every staff member who is responsible for implementing a student's treatment plan undergoes a two-week intensive pre-service training period, which included but was not limited the use of on Limited Movement and the GED, how to follow a residents recording sheets as well as [redacted] report writing. The investigation noted that all staff at the Stoughton Residence had a completed the required JRC requirements and training.

• The licensee reported that staff are required to view each resident Recording Sheet daily and sign off that they have read the student's current status. The investigation noted that the Recording Sheet clearly states that if staff should have questions regarding the students plan to speak with the shift supervisor, DVR monitoring, the clinician or case manager. Review of the recording sheets for residents [redacted] and [redacted] (dated 8/26/07) noted that at least 4 staffs had signed that they had viewed it.

• According to JRC policy, the overnight supervisor is responsible for a variety of duties relating to the implementing of the students treatment plan and educational program at the residential homes and to ensure that all overnight duties are carried out. It was reported that the scheduled supervisor had called out therefore the person with the most seniority takes the lead. The licensee reported that any phone calls into the house are supposed to come through the supervisor who would then instruct staff accordingly.

• An interview was held with the JRC Administration on 9/28/07. The licensee reported that the actual DVR monitor assigned to observe the Stoughton residence was not doing his job by viewing the cameras at the residence therefore DVR monitoring system failed to detect and intervene in the events in a timely manner. The monitoring staff [redacted] was consequently terminated from the JRC program. It was reported that staff [redacted] had also been terminated and others were pending.

• The licensee had reported that given the recent events it had self identified issues, and the program has revised identified policies and procedures to assure that the program is well structured to meet the needs of all residents as well as to assure their comfort and safety. The licensee reported that they have taken the necessary steps to assure that staff are appropriately trained and capable of providing adequate care. All current direct care staff are being re-trained on JRC policies and procedures. The licensee had assigned two new supervisory staff to for the overnight shift. In addition, video review of the DVR room and random spot checks will occur to assure that monitoring staff are doing their jobs. The licensee further reported that a new phone system screening process had been put in place and all phone calls will be transferred to each residence through the school.

• The licensee reported that Delayed Consequences involving skin shocks are no longer permitted, instead, an alternative consequence will be employed. The licensee reported that most residents have been faded from the GED with the exception of those who had self injurious behaviors. The JRC program has suspended the use of the GED in all but 8 residences and has implemented an in house monitoring system for those residences that continue to administer application. A monitoring staff will physically sit in the house and supervise restraints and socialization. It was reported that if students start regressing they will be moved to a residence with in house monitoring. The licensee reported that in the event that a student requires a GED application or restraint the overnight supervisor will immediately respond to that residence.

Non-compliances:

See Attached Statement on Non-Compliance

Investigator
Angela Goss

Statement of Outstanding Compliance Issues

Complaint Number: **49037** Date of Report: **11/1/2007**

Program Information: Tel: 781 828-2202

Program #: **4904051**

Program Name: JRC - 66 Kevin Clancy Way

66 KEVIN CLANCY WAY

STOUGHTON, MA 02072-3888

Licensee Information: tel: 781 828-2202

Licensee ID: **1472144**

Licensee name: Judge Rotenberg Educational Center, Inc.

240 TURNPIKE ST

CANTONMA 02021-2359

REGULATION	STATEMENT OF NON-COMPLIANCE	CORRECTION PLAN (Describe how, when and by whom, e.g., correction has been / will be made. Please be specific)	DATE	STATUS OF COMPLIANCE (EEC USE ONLY)
1.05(02)(a), 3.07(01), 3.07(07)(g)01	The investigation has found sufficient evidence to conclude that staff [redacted] was physically abusive towards residents [redacted] and [redacted] allegation of physical abuse by staff [redacted]. It is the judgment of the Department that staff [redacted] had engaged in behavior that bears adversley upon his ability to to provide for the safety and well being of a child.			
1.05(02)(a), 3.07(01), 3.07(07)(g), 3.07(07)(g)05, 3.01(c), 3.01(d), 3.01(e)	The investigation found sufficient evidence to conclude that six direct care staffs at the Stoughton residence were neglectful in the care of residents the three identified residents. [redacted] the allegation of negelct by all staff. The program staff failed to protect the health and safety of the identified residents. It is the judgment of the Department that the staff engaged in conduct which bears adversely upon their ability to provide for the safety and well being of a child.			
1.06(03)	-The investigation found that [redacted] and [redacted] Staff [redacted] gave false and misleading information to investigators.			
3.01(a), 3.04(03)(a), 3.01(c), 3.01(d), 3.01(e), 3.03(01), 3.03(01)(a)07	The Licensee and Administration failed to provide a program that was administratively sound with clearly conceived policies and practices for the services provided to residents.			

REGULATION	STATEMENT OF NON-COMPLIANCE	CORRECTION PLAN (Describe how, when and by whom, e.g., correction has been / will be made. Please be specific)	DATE	STATUS OF COMPLIANCE (EEC USE ONLY)
3.01(a), 3.06(04)(a), 3.03(01)(a)18, 3.03(01)(a)19	The Stoughton House Staff failed to communicate relevant information to nursing regarding residents [redacted] and [redacted] condition following the GED application, resulting in delay of medical attention for both residents.			
3.03(01), 3.01(c)	The program staff were not monitoring residents in an manner that assured their health and safety. The staff failed to provide a safe comfortable enviorment for all residents in care.			
3.03(01)(a), 3.07(07)(a)	It is the investigation finding that certain program policies such as delayed consequences and program Ops were contributing factors for staff not responding appropriately on the night of 8/26/07.			
3.04(02)(b), 3.04(08); 3.07(01)	The investigation had found sufficient evidence to conclude that staff [redacted] lacked the necessary training and experience to carry out responsibilities of an overnight supervisor.			
3.04(03)(e)03	The investigation found sufficient evidence to conclude that the Stoughton staff neglected their responsibilities as a mandated reporter. The staff made no efforts to report the unwarranted use of force to Administration or file a report with the appropriate authority.			
3.04(07)(a), 3.04(07)(f), 3.07(01)	The Stoughton residential staff failed to follow established JRC policies and standard program procedures as it relates to the residents Treatment Plan and Recording Sheet.			
3.04(07)(a), 3.04(07)(f), 3.04(02)(c), 3.03(01)(a)04	The licensee failed to have staff with adequate training on shift to ensure the proper administration of the program policies and standard program procedures.			
3.07(01), 3.07(07)(g), 1.05(02)(a), 3.04(02)(b), 3.04(08)	-Staffs [redacted] and [redacted] were neglectful in their responsibilities as monitoring staff thus compromising the the safety of the residents.			

REGULATION	STATEMENT OF NON-COMPLIANCE	CORRECTION PLAN (Describe how, when and by whom, e.g., correction has been / will be made. Please be specific)	DATE	STATUS OF COMPLIANCE (EEC USE ONLY)
3.07(07)(a), 3.07(07)(h), 3.07(07)(i), 3.07(07)(j)01a, 3.07(07)(j), 3.07(07)(j)07	The staffs failed to follow established JRC policies and standard program procedures as it relates to behavior management.			

Angela Goss

Licensing Specialist

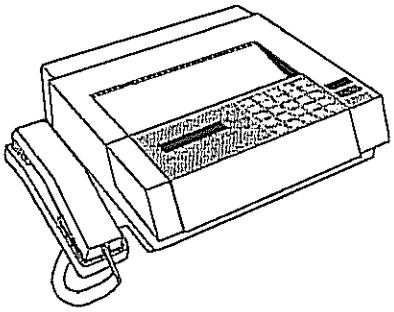
I have reviewed the above non-compliances and have specified my plan and date of correction for each non-compliance.

LICENSEE'S SIGNATURE: _____ DATE: _____

Attachment K

New York State Education Department
VESID
Special Education Policy
JRC Program Visitation Report – 6//2006
Dated: June 12, 2006

New York State Education Department



VESID
SPECIAL EDUCATION POLICY
One Commerce Plaza
Room 1624
99 Washington Avenue
Albany, NY 12234

Telephone: (518) 473-2878
Fax: (518) 473-5387
(518) 474-2219

TO: Dr. Matthew Israel

FROM: James P. DeLorenzo

Date: 6/12/06

No. of pages: 28
(including cover sheet)

Note(s): Observations and Findings of Out-of-State Visitation: Judge Rotenberg Educational Center

THE STATE EDUCATION DEPARTMENT / THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234

OFFICE OF VOCATIONAL AND EDUCATIONAL SERVICES FOR INDIVIDUALS WITH DISABILITIES
STATEWIDE COORDINATOR FOR SPECIAL EDUCATION
Room 1624 One Commerce Plaza • Albany, NY 12234 Telephone (518) 402-3353 Fax: (518) 473-5769
www.nysed.gov

June 12, 2006

Matthew L. Israel, Ph.D.
Executive Director
Judge Rotenberg Educational Center
240-250 Turnpike Street
Canton, MA 02021-2341

Dear Dr. Israel:

Enclosed is a copy of the June 9, 2006 "Observations and Findings of Out-of-State Visitation: Judge Rotenberg Educational Center." This document summarizes the findings from the review of the Judge Rotenberg Educational Center (JRC) conducted by the New York State Education Department (NYSED) on April 25 and 26 and May 16, 17 and 18, 2006.

A letter documenting issues relating to health and safety concerns that must be immediately addressed by JRC is being sent to you under separate cover. Additionally, a report that includes compliance issues identified during the site visit will also be sent to you under separate cover.

Thank you for the cooperation you and your staff extended to the NYSED review team during the April and May visits. Questions regarding the observations and findings should be directed to me.

Sincerely,

James P. DeLorenzo

Enclosure

c: Rebecca H. Cort
Daniel Johnson

Observations and Findings of Out-of-State Program Visitation
Judge Rotenberg Educational Center

Review Team: Rusty Kindlon, Regional Associate; Susan Bandini, Regional Associate; Christopher Suriano, Regional Associate; Paula Tyner-Doyle, RD; Dr. Caroline Magyar, Consultant; Dr. Daniel Crimmins, Consultant; Dr. David Roll, Consultant

Background Information

The Judge Rotenberg Educational Center (JRC) (formerly known as the Behavior Research Institute) is a private residential school located in Canton, Massachusetts. JRC is currently approved by the New York State Education Department (NYSED) under Chapter 853 of the Laws of 1976 as a residential school serving students with autism, mental retardation, emotional disturbance and multiple disabilities. JRC serves students who exhibit serious behaviors that interfere with learning and provides an intensive behavioral treatment program to students 24 hours a day, seven days a week.

Recent Activity

Based on documentation provided by the program subsequent to a previous site visit which raised concern about JRC's use of aversive interventions, as well as recent questions from legislators, the Board of Regents and others, NYSED conducted a review of JRC's program on April 25 and 26, and on May 16,17, and 18, 2006. The review was conducted by NYSED staff and three behavioral psychologists in the role of independent consultants. The April 25-26 review was an announced visit. The May 16-18 review was an unannounced visit.

The purpose of these visits was to conduct a review of the behavioral intervention program at JRC to gain an understanding of the scope of the behavior intervention plans; to identify any health and safety issues relating to JRC's use of aversive interventions; to identify the general standard for implementing and monitoring students' behavior plans; to determine if the interventions are commensurate with the level of behavioral difficulties the students' are exhibiting; and to determine if students are receiving behavior interventions consistent with their individualized education programs (IEPs).

Methods used for the site review in April and May included the review of school policies, student records, observations of school and education programs, and staff and student interviews. A sample of 12 NYS students were selected for review from the 71 NYS students receiving aversive interventions that included electric skin shock, food contingent programs and/or manual or mechanical restraints (Level III Behavioral Interventions). The students were randomly selected based on age and disability category. The school district of residence of the student was also considered to ensure that the sample included students from districts other than New York City (NYC), where most NYS students served at JRC reside. In addition, the Registered Dietician (RD)

reviewed records of four students on the Contingent Food Program, one student on the Specialized Food Program and one student that was reported to be at nutritional risk.

The site team reviewed the following information:

- student records including student program plans, student program data and progress summaries;
- school menus, nutritional analysis of menus, nutritional assessments, weight charts, biomedical data, daily health sheets and a Court Order for the Contingent Food Program and Specialized Food Program;
- observations conducted throughout the five days of the site review, including observations of school and residence environments, classroom instructional periods, transition periods, and transportation periods; and observations of personnel, program operations, student-personnel interactions, and student activities;
- interviews with JRC staff including the following: Director of Clinical Services, Psychologist, Director of Quality Assurance, Director of Curriculum, nurse, nutritionist, chef, two classroom teachers, and four classroom aides;
- interviews with five students with verbal skills sufficient to participate in an interview process; three students had psychiatric diagnoses, another was dually diagnosed with Asperger's Syndrome and psychiatric diagnoses, and the fifth was diagnosed with autism and psychiatric diagnoses; and
- interviews with chairpersons from NYS Committees on Special Education (CSE) of two former and one current student at JRC were conducted.

Summary of Findings

Following is a summary of the findings[1] of concern primarily relating to the behavioral interventions and related instructional practices used at JRC. The findings represent the collective professional opinion of the site review team members based on data obtained from a review of written information, direct observations and interviews obtained during and related to the April and May 2006 site reviews. These findings include the specific observations and/or information obtained during the review process that support the conclusions of the team.

- *The integrity of the behavioral programming at JRC is not sufficiently monitored by appropriate professionals at the school and in many cases the background and preparation of staff is not sufficient to oversee the intensive treatment of children with challenging emotional and behavioral problems.*

[1] This report does not include findings of noncompliance with Regulations of the Commissioner of Education. The compliance findings will be addressed in a separate letter and report to JRC.

- *JRC employs a general use of Level III aversive behavioral interventions to students with a broad range of disabilities, many without a clear history of self-injurious behaviors.*

- *JRC employs a general use of Level III aversive behavioral interventions to students for behaviors that are not aggressive, health dangerous or destructive, such as nagging, swearing and failing to maintain a neat appearance.*

- *The use of the electric skin shock conditioning devices as used at JRC raises health and safety concerns.*

- *The Contingent Food Program and Specialized Food Program may impose unnecessary risks affecting the normal growth and development and overall nutritional/health status of students subjected to this aversive behavior intervention.*

- *The education program is organized around the elimination of problem behaviors largely through punishment, including the use of delayed punishment practices.*

- *There is limited evidence of comprehensive functional behavioral assessments (FBAs), in accordance with the Individuals with Disabilities Education Act (IDEA), being conducted at JRC and limited evidence of the collection of data relevant to FBAs.*

- *Behavioral Intervention Plans (BIPs) are developed to support the use of aversive behavioral interventions with limited evidence of students "being faded" from the electric skin shock conditioning devices or other aversive interventions.*

- *JRC promotes a setting that discourages social interaction between staff and students and among students.*

- *Students are provided insufficient academic and special education instruction, including limited provision of related services.*

- *JRC often does not support the continuation of related services that have been previously recommended on students' IEPs and/or promote the transition of students to less restrictive environments.*

- *The privacy and dignity of students is compromised in the course of JRC's program implementation.*

- *The collateral effects (e.g., increased fear, anxiety or aggression) on students resulting from JRC's punishment model are not adequately assessed, monitored or addressed.*

Information Regarding NYS Students Attending JRC

At the time of the site visit on April 25 and 26, 148 NYS school aged students were enrolled at JRC. Eighty-two percent of NYS students were placed at JRC by the New York City Department of Education. The additional NYS students represent school district placements from 22 other NYS school districts. Most of these students have the disability classification "Emotional Disturbance" with IQ scores that fall in the low average to average range of intelligence. There are also a number of students with the classification of Autism with cognitive abilities falling in the range of mild to profound mental retardation. Many of the students from NYS have diagnoses of posttraumatic stress disorder (PTSD), schizophrenia, attention deficit hyperactivity disorder (ADHD), obsessive-compulsive disorder (OCD), and bipolar disorder. A number of students also have histories of abuse and abandonment. JRC has a 'near zero' rejection policy and accepts students with psychiatric, developmental, and dually diagnosed disorders.

In March 2006, NYSED requested that JRC submit the IEPs of all NYS students. NYSED received a total of 146 IEPs. Seventy-one out of the 146 IEPs indicated students were receiving Level III behavioral interventions[2], which constitutes a range of punishment techniques designed to reduce or eliminate target behavior(s). The IEPs identified ten additional NYS students for whom court ordered substituted judgment was being sought in order to include Level III aversive procedures in their behavior intervention programs. Of the 71 students' IEPs, 49 indicate NYC as the district of residence (69 percent). A total of 33 of the 71 students receiving aversive behavioral interventions have the educational classification of Emotional Disturbance (46 percent), 21 are classified with Autism (30 percent), one student is classified as Other Health Impaired (one percent), five are classified with Mental Retardation (7 percent), and 11 have Multiple Disabilities (15 percent).

JRC Program Model and Operations

The behavioral program model at JRC is based on a Skinnerian (behavioral) approach and does not differentiate between the treatment of students with psychiatric or developmentally related childhood disorders. Instead childhood disorders are viewed as learned behavior disorders, which can be corrected through behavior modification techniques. Psychotropic medication is discouraged at JRC and currently only a small number of students with severe psychiatric diagnoses are receiving medication for symptoms associated with their psychiatric conditions.

Referral and admission practices

A review of student records revealed that in a number of instances the family of the student became aware of JRC's program as a result of their child's psychiatric hospitalization.

[2] Level III behavioral interventions are explained beginning on page 6 of this summary.

- JRC's marketing representatives provide information through presentations to staff at some NYS psychiatric facilities that in turn discuss the program with the families. JRC's marketing representatives visit the family in their homes and as indicated in representatives' case notes, provide the family with information and gifts for the family and student (e.g., a gift bag for the family, basketball for the student).

- A review of JRC's internal IEP admission checklist states that staff 'eliminate' (where possible) related service recommendations. For example, an admission waiting list form was observed that included a box "Drop Speech/OT" with the handwritten note "if at all possible" next to it.

- Prior to or upon admission, for many students, JRC informs the school district to include a statement on the students' IEPs that JRC will be seeking court authorized Level III interventions to include movement limitation procedures and the Graduated Electronic Decelerator (GED) to treat aggression, health dangerous, destructive, major disruptive and noncompliant behaviors. (One school district informed NYSED that JRC did not inform or seek approval of the CSE prior to initiating such interventions with the student.)

Determination of the need for aversive interventions

JRC may decide prior to a student's acceptance into the program that he/she requires aversive procedures based on historical and current behavioral information provided by parents, the CSE and other records/reports. The school districts and the parent are informed that JRC will seek a Court Order through the substituted judgment process to use aversive procedures that include the use of skin shock, manual and mechanical restraints, helmets, and contingent food or specialized food programs (Level III). Parents are asked to sign an informed consent for JRC to use the aversive procedures and for JRC to seek the Court Order to use the aversives. The school district and parents are informed that the use of aversive procedures may be a condition of the student's acceptance and continued enrollment in the program.

Upon enrollment, a student may be initially placed in an educational setting designated by JRC as an "alternative learning center (ALC)" or a "small conference room" and a residence that is identified by JRC as one of the most restrictive settings characterized by a high staff-to-student ratio. The stated purpose for student placement in these restrictive settings is to control students who present with current behavioral difficulties which require physical intervention at a high rate, and for whom substituted judgments have not yet been obtained. The majority of staff in the ALC and "small conference rooms" are Mental Health Aides (MHA's). (JRC employs a total of 386 MHAs and 254 Mental Health Relief Aides in the school and residences. Most of these individuals, 468 of the total 640 MHAs and Mental Health Relief Aides, have completed only a high school education.)

- It is during this initial restrictive placement at JRC that the frequency of behaviors is documented for purposes of obtaining a substituted judgment for the use of Level III

aversive procedures (described below). In this setting, interactions with students involved little to no instruction; staff primarily attended to students' negative behaviors and employed the use of physical and mechanical restraints at a high frequency and for extended periods of time.

- One student's behavior chart documenting total inappropriate behaviors showed an increase from 800 per week during the first weeks after admission to JRC to average of 12,000 per week. Clinician notes only document the number of inappropriate behaviors. They did not denote any positive behaviors or academic progress. The data showing an increase in inappropriate behaviors is used to substantiate the need for Level III aversive behavioral interventions, and not for analysis to determine alternative forms of intervention. Clinician's notes, on at least three occasions, indicated that the staff was anxiously awaiting court approval of the use of the GED to help the child more effectively.

Level III Aversive Procedures Used by JRC Staff

Upon receipt of parental consent, JRC applies to a Massachusetts Probate Court through a substituted judgment petition to use Level III aversives in the student's behavioral program. Level III aversives constitute a broad spectrum of punishment techniques that include movement limitation (i.e. mechanical and physical restraint), contingent food, helmet, and electric skin shock. The use of Behavior Rehearsal Lesson (BRL)[3] and combined use of aversive techniques are also Level III interventions.

Substituted judgment process

Pursuant to a settlement agreement between JRC and the Massachusetts Office for Children, Level III aversive procedures are permitted for use at JRC only when authorized as part of a court-ordered "substituted judgment" treatment plan for each individual student. The settlement agreement states that in any substituted judgment proceeding the court appoints a monitor who will report to the court as to the effectiveness of the treatment plan, adherence to orders by JRC and any proposed modifications to the treatment plan. The settlement agreement also required ongoing training and supervision of staff by a doctoral level psychologist, and treatment approaches as a method of minimizing the use of restrictive procedures including passive behavior management, functional communication, analysis of stimulus control and analysis of consequence control.

Electric skin shock

The most common Level III aversive procedure used at JRC is skin shock in which one or more electrical stimulations are administered to a student after he or she engages in a targeted behavior. Skin shocks are delivered through a graduated electronic deceleration (GED) device that consists of a transmitter operated by JRC

[3] BRL is described on page 9 of this report.

staff and a receiver worn by the JRC student. The receiver delivers an electrical current to the student's skin upon command from the transmitter. Electrodes are worn by the student on various parts of the body, notably the arms, legs and stomach area, and can range in number and placement dependent upon the students' behavior program guidelines.

Students wear the GED device for the majority of their sleeping and waking hours, and some students are required to wear it during shower/bath time. The GED receivers range in size and are placed in either "fanny" packs or knapsacks. Staff carry the GED transmitters in a plastic box. Students may have multiple GED devices (electrodes) on their bodies. For example, one NYS student's behavior program states, "C will wear two GED devices. C will wear 3 spread, GED electrodes at all times and take a GED shower for her full self care."

The GED is manufactured by the JRC. While JRC has information posted on their website and in written articles which represents the GED device as "approved", it has not been approved by the Food and Drug Administration (FDA). FDA has cleared the device for marketing as "substantially equivalent to devices marketed or classified as "aversive conditioning devices." FDA's clearance prohibits JRC from representing the device as FDA approved. JRC's GED was modified from other similar devices on the market by doubling the intensity (amperage and voltage) and increasing the duration by 10 times (from .2 to 2 seconds) of the shock administered and by expanding the positions on the body where the electrodes could be placed. JRC also uses a device called the GED-4, which applies an even greater intensity shock to the student when the student fails to respond to the lower level shock.

FDA recommended warnings on the GED device include statements that the device is to be used only by or under the direct supervision of an appropriately licensed professional as part of an overall therapy program; the GED should not be allowed to become wet or submerged in water; the electrode must be properly located and secured to the skin and never placed on the chest or breasts, genitals, head, top of hand, top of foot, the lower quadrant of the buttocks, or on any area of skin that the patient is known to be unusually sensitive or subject to allergic reaction to contact with stainless steel; the instructions must be thoroughly reviewed and fully understood by the operator/therapist and the supervising professional whenever the GED is in use with a patient; a regular program of training and review for anyone operating the GED is necessary; a review of the GED manual by each operator no less frequently than once a month is strongly recommended."

The site review team was informed by JRC staff that most students have behavior programs that require two-person verification of a behavior that will result in a GED skin shock. There are students with 1:1 staff for whom the two-person verification is not required.

- At the time of team's April visit there were 148 NYS students enrolled at JRC. At that time, 77 were approved to receive Level III behavioral interventions from staff at

JRC. Of these 77 students, 53 were receiving skin shock through the GED that is adjustable with an average intensity of 15.25 mill amperes RMS, a duration of .2 seconds to 2 seconds, an average peak of 30.5 milliamperes, and 24 students are receiving GED (referred to as a GED-4) skin shock which has a maximum current of 45.0 milliamperes RMS, an average peak of 91 milliamperes, and a maximum duration of 2 seconds. The higher-level shock is used when it is determined that the student is not responding to the lower level shock.

Use of automated electronic devices – "automatic negative reinforcement"

At JRC, an additional form of electrical circuitry is used to automatically administer a series of aversives (e.g., skin shocks) as soon as a behavior is initiated. Shocks are administered at regular intervals (e.g., one every three seconds). The automatic negative reinforcement shocks terminate as soon as the behavior stops occurring. This device is not operated by JRC staff. For example, some students are made to sit on a GED cushion seat that will automatically administer a skin shock for the targeted behavior of "standing up", while others wear waist holsters that will administer a skin shock if the student pulls his/her hands out of the holster. NYSED could not find evidence, nor did JRC provide the evidence as requested, that this automated electric shock device has been cleared for marketing by FDA or approved by FDA. FDA regulations prohibit the use of an aversive conditioning device that has not been approved or cleared by FDA.

Movement limitation

Movement limitation is another commonly used Level III intervention that may be applied manually or mechanically. When applied manually, staff members physically hold the student. With mechanical movement limitation the student is strapped into/onto some form of physical apparatus. For example, a four-point platform board designed specifically for this purpose; or a helmet with thick padding and narrow facial grid that reduces sensory stimuli to the ears and eyes. Another form of mechanical restraint occurs when the student is in a five-point restraint in a chair. Students may be restrained for extensive periods of time (e.g., hours or intermittently for days) when restraint is used as a punishing consequence. Many students are required to carry their own "restraint bag" in which the restraint straps are contained.

Under the terms of the Court Order, JRC must notify the Court Monitor if a student requires more than eight continuous hours of movement limitation procedures in a 24-hour period. In addition, the Court must also be notified if the student spends five or more days in movement limitation in a seven-day period. The school nurse stated that she is responsible to monitor any skin burns caused by the GED and abrasions due to restraints. She also advises staff on the positioning of restraints and potential complications for each student. Based upon the nurse's recommendation, a student may be restrained in a prone, seated, or upright position.

- During a classroom observation, the nurse was called in to examine a student who complained of hand pain and swelling from restraint the previous evening at her residence. The nurse provided the student with an ice pack for her hand, and staff informed the review team that the student later received outside medical attention for the injury.

- The meeting minutes from one student's CSE meeting stated the student was unable to attend the meeting because she was in restraint. This was one of the students interviewed and she stated that she needed to talk with her CSE Chairperson regarding her behavior program at JRC, but was unable to attend the last meeting. On follow up with the Chairperson, the team learned that the student was in attendance at a more recent CSE meeting in May 2006, but was unable to participate because she could not control her sobbing. According to the Chairperson, the CSE recommended at the May CSE meeting that this student be faded from the GED.

Combined restraint/shock interventions

A combination of mechanical restraint and GED skin shock is also used to administer a consequence to students that attempt to remove the GED from their bodies. In instances where this combined aversive approach is used, the student, over a period of time specified on his or her behavior program, is mechanically restrained on a platform and GED shocks are applied at varying intervals.

- An example of this is found on one NYS student's behavior program; a consequence for pulling a fire alarm is to receive 5 GED, over a 10-minute period, while being restrained on a four-point board.

GED skin shock and restraint are also used together when the Behavior Rehearsal Lesson (BRL) is practiced on a student. The BRL is used when a student exhibits a high risk, low frequency behavior. As described by a JRC staff person, during a BRL, the student is restrained and GED administered as the student is forcibly challenged to do what the procedure seeks to eliminate. If the student attempts to pull away he receives a GED skin shock; if the student attempts to follow through with the high-risk behavior he receives multiple GED skin shocks at closer intervals.

- Currently there are nine NYS students with court approved treatment plans that include the use of the Behavior Rehearsal Lesson. Although, according to JRC, the BRL is not currently in use for any of the students, this highly intrusive intervention remains in the Court Order and may be employed by JRC in the treatment of these NYS students' behaviors.

Contingent and Specialized Food Programs

JRC is approved by the Massachusetts Department of Education (MDOE) to receive federal funding for participating in the National School Lunch and School Breakfast Program. For the 2005-06 school year, MDOE has approved JRC to serve students the "Traditional Meal Pattern." JRC's current food program promotes a diet that is largely based on whole plant foods and actively restricts consumption of meat and dairy products. The chef, nutritionist, food service staff and school and residential staff have an adequate system in place to ensure that each student is allocated his or her prescribed diet. The facility's food handling practices are adequate and all food leaves the kitchen at temperatures that meet industry standards. The nurse, nutritionist and case manager meet weekly to review a sample of students' weights. Weights are recorded on a daily weight chart that is maintained in the classroom with the student. The school physician contacts nursing daily and examines each student at least once per month or as needed.

The Contingent Food Program is also widely applied and designed to use hunger to motivate students to be compliant. This intervention requires that a student "earn" a portion of his or her daily prescribed calories by not engaging in identified target behaviors (as per his/her behavior contract). If the student passes each of the behavioral contracts that are set for him/her, he/she will earn 100 percent of the planned calories for each meal served. If the student fails to pass one or more of his/her contracts, the student is not given the food portion(s) that is (are) the potential reward(s) for that contract. Food portions not earned are discarded by the staff and/or student. If the student does not earn the minimum daily total of calories by 7:00 PM, then the balance necessary to bring the total calories eaten to the student's targeted calories is dispensed to him in the form of nonpreferred staple food (e.g., consisting of mashed food sprinkled with liver powder). The Court Monitor must be informed when a student has been required to consume the full calories in the form of nonpreferred food for a period of two weeks.

The Specialized Food Program is more restrictive. For students on the Specialized Food Program, JRC does not offer make-up food to compensate for food that the student missed by failing to pass his or her contracts unless the student has eaten 20 - 25 percent or less of his normal daily caloric target. If the student has eaten 20 - 25 percent or less, he/she is offered make-up food to bring him up to the 20 - 25 percent level. The Court Monitor is informed whenever the student receives no more that 20 – 25 percent of the daily caloric goal for two consecutive weeks. Daily weights are maintained and ketone levels are measured when the prior day's intake is less than 80 percent of the recommended daily caloric intake.

- Currently there are ten NYS students on the Contingent Food Program and one NYS student on the Specialized Food Program.

Following is a summary of the identified findings, primarily relating to the behavioral interventions and related instructional practices used at JRC, followed by supporting observations, facts and information learned. The findings are based on a review of written information, direct observations and interviews obtained during and related to the April and May 2006 site reviews. Each statement of findings reported below are followed by observations or information that served as the basis for the findings.

Findings: ***The integrity of the behavioral programming at JRC is not sufficiently monitored by appropriate professionals at the school and in many cases the level of background and preparation of staff is not sufficient to oversee the intensive treatment of children with challenging emotional and behavioral problems.***

- JRC's psychologists or clinicians develop student behavior programs. JRC's psychology department lists a total of 17 clinicians. Of these clinicians, although 12 have some doctoral level training in psychology, only four have licensure from the State of Massachusetts as Psychologist Providers, one is licensed as a psychologist in another state and one has a license as an Educational Psychologist. A high level of competence in psychology and behavior analysis is necessary for ethical practice when the most intrusive and aversive procedures are used in the treatment of children with behavior problems as complex and challenging as many who are approved for Level III aversive behavioral interventions at JRC.

- JRC employs a 24-hour a day/7 days a week video surveillance system for purposes of quality assurance. The purpose of the Quality Assurance (QA) department is to monitor the integrity of the treatment broadly (i.e., Behavioral and Safety Systems), but not to monitor the integrity of student specific behavior plans. There are approximately 20 QA staff and approximately four to six staff on per shift. There are approximately 240 students/adult consumers, which essentially require that each QA staff per shift monitor approximately 40 to 60 students/consumers. The QA team did appear to carry out this mission effectively with regard to staff conducting programs as written. However, JRC staff did not record data on student engagement in productive activities and the number of learning opportunities provided by staff, measures which correlate highly with student academic and social progress.

- While JRC collects comprehensive data on negative targeted behaviors, there was no evidence of the collection of data on replacement or positive behaviors to document the development of replacement or enhancing skills. Documentation was difficult to find for evidence of academic progress or development of positive social skills. The program descriptions of behavioral interventions are very standardized across students and show a lack of individualization of treatment planning. Treatment plans do not always vary for different types of behavioral difficulties exhibited by an individual student, even though these behaviors may serve different functions for the student.

- The average educational attainment of most of the QA personnel is a High School diploma. QA personnel are recruited from within JRC given a) employment of several years within the agency and b) prior supervisory experience. They are not required to be Board Certified Behavior Analysts or Board Certified Associate Behavior Analysts. The Director of QA reported a high turnover rate within the QA department. The agency has implemented a Retention Coach to help new employees make the adjustment to the agency.

- Staff development is provided via a) 2-week orientation, and b) 30 mandated hours of in-service training. A review of the staff development plan indicates minimal, if any, training on student characteristics; functional behavioral assessments; reinforcement; shaping or other behavioral techniques used for increasing positive social behavior; and educational supports that include instructional methods and curriculum. Staff receives one hour of training on collecting and graphing data, but no required training on positive teaching procedures. In addition, all staff appears to receive the same training, regardless of their particular function (e.g., teachers do not necessarily receive additional training in educational supports; QA team members do not necessarily receive training in behavior analysis).

- The GED device may also be sent home with NYS parents after they receive training from JRC regarding the use and application of the GED. One record reviewed indicated that the student went home for a vacation break and a family member, to administer punishment, used the GED device. However, the report did not identify which family member actually administered the GED skin shocks. This uncertainty as to how and by whom GED punishment was administered during the home visit raises questions regarding the appropriateness of making the device available to families where documentation of implementation does not occur. Moreover, there are specific requirements imposed by the Court Order that require JRC to report to the Court Monitor when more than 50 skin shock aversives are delivered to a student in a 24 hour period and when the student receives 250 skin shocks in seven days. The lack of specific data regarding the home use of the GED suggests that the court mandate for reporting may be compromised.

- JRC's practice of providing the shock device to families and allowing newly hired staff with little to no training and information on a student to administer the GED appears to be in direct violation of the FDA required safety precautions on the use of the device.

- In one classroom it was observed that a new staff member was briefly informed that his role in the room was to monitor 1:1 student S and second party verification was not required before administering the GED. The new staff person was handed the SLED (GED transmitter) and verbally given direction and instruction in when to administer the GED. As the instructing staff person was departing, she also informed the new staff that student S is deaf.

Findings: ***JRC employs a general use of Level III aversive behavioral interventions to students with a broad range of disabilities, many without a clear history of self-injurious behaviors.***

- JRC has a "near zero rejection policy." They accept most students into the program, regardless of the student's diagnosis(es), and use the same general behavioral approach for all students. The treatment model/program offered to students is behavioral, and does not offer any other forms of interventions for those students that exhibit psychiatric, developmental, and/or dually diagnosed disorders. There were no indications that JRC considers whether its behavioral model based primarily on the use of punishment techniques is appropriate for all types of disabilities and no evidence that JRC differentiates between the treatment of students with psychiatric disorders or developmentally related childhood disorders.

- There is no evidence that JRC considers the potential negative effects, such as depression or anxiety, that may result from the use of aversive behavioral strategies with certain individual students. Several students from NYS came to JRC with diagnoses of Post Traumatic Stress Disorder (PTSD)[4], yet their behavior programs call for skin shock. Skin shock has the potential to increase the symptoms associated with PTSD, yet there is no evidence of data measuring these possible side effects or therapies designed to treat these symptoms.

- The GED and other aversive behavioral interventions are widely used on higher functioning students with emotional disabilities. JRC has a higher number of students with emotional disabilities receiving electric skin shock and other Level III aversive interventions than students in disability categories such as mental retardation or autism.

- One student wearing the GED who was interviewed displayed insight into his behaviors and related replacement and coping behaviors he taught himself (writing in a journal; writing poetry). These abilities indicate the possibility that less aversive and intrusive interventions could be attempted systematically with this student.

Findings: ***JRC employs a general use of Level III aversive behavioral interventions to students for behaviors that are not aggressive, health dangerous or destructive, such as nagging, swearing and failing to maintain a neat appearance.***

- Many of the students observed at JRC were <u>not</u> exhibiting self-abusive/mutilating behaviors, and their IEPs had no indication that these behaviors existed. However, they were still subject to Level III aversive interventions, including use of the GED device. The review of NYS students' records revealed that Level III interventions are

[4] "PTSD is caused by experiencing, witnessing, or being confronted with an event involving serious injury, death, or threat to the physical integrity of an individual, along with a response involving helplessness and/or intense fear or horror." (T. Allen Gore, MD, MBA, CMCM, FAPA, Director Inpatient Unit, Assistant Professor, Department of Psychiatry, Howard University Hospital, Howard University School of Medicine)

used for behaviors including 'refuse to follow staff directions', 'failure to maintain a neat appearance', 'stopping work for more than 10 seconds', 'interrupting others', 'nagging', 'whispering and/or moving conversation away from staff', 'slouch in chair', as well as more intensive behaviors such as physical aggression toward others, property destruction and attempts to hurt/injure self.

- One record reviewed indicated the student had received 18 GED skin shocks between 4/01/05 and 4/30/05 and the major destruction and aggression behaviors only added up to 10 instances in that timeframe. The additional eight skin shock applications were due to inappropriate verbalizations and interference with education.

- One school district CSE chairperson expressed concern that JRC used Level III interventions for behaviors the district did not consider problematic for a student they had placed at JRC (i.e. getting out of seat, nagging). The chairperson stated that not all the student's identified behaviors for which the student received skin shock were significant to the extent that they interfered with the student's ability to learn.

- A higher functioning teenage student was observed sneezing in class. She covered her face and called out for a tissue. The teacher then indicated that that "calling out" was a target behavior that would result in her action being pinpointed as inappropriate (i.e., subject to aversive consequence). This example raises concerns that there might be little to no discrimination of acceptable, appropriate behaviors within a targeted behavior category subject to Level III aversive consequences by untrained or poorly supervised staff.

- One student's record indicated he would receive one GED for aggression (including verbal threats of aggression or aggressive posturing) as well as actual aggression toward others; possession of weapons, destruction of property or threats to destroy property; leaving a supervised area; running away; hurting self, or verbal threats to hurt self, swearing, yelling, screaming or refusal to follow directions. His plan indicates he would receive five GED exposures over a 10-minute period applied to his legs and waist in response to attempts to touch the GED transmitters in an effort to apply the GED shock to another student. This same student reported the last GED shock he received was for an incident of swearing.

- Massachusetts' regulations authorize Level III interventions only to address extraordinarily difficult or dangerous behavioral problems that significantly interfere with appropriate behavior and/or the learning of appropriate and useful skills and that have seriously harmed or are likely to seriously harm the individual or others. While behaviors such as "refuse to follow staff directions", "failure to maintain a neat appearance", "stopping work for more than 10 seconds", "interrupting others", "nagging", etc., may have been found predictive of more serious behaviors in past instances, they are clearly not extraordinarily difficult or dangerous in their own right. Common behavioral practice is to use these behaviors that have been at the

beginning of a chain leading to severe behaviors as a signal to institute preventative measures that would break the previously observed chain.

- 71 NYS[5] students were receiving Level III aversives as of the date of the review and JRC was seeking court approval to use Level III aversives with an additional 10 students. Of the IEPs of NYS students that include statements regarding the use of Level III behavioral interventions, all read the same and are written without specificity with regard to how such interventions are to be used with a student:

  - 10 IEPs of NYS students included statements that JRC "will seek court authorization to use Level III intervention to include Movement Limitation Procedures and the Graduated Electronic Decelerator to treat _____'s major problematic behaviors to include aggression, destructive, health dangerous, major disruptive, and noncompliant behaviors. JRC also employs Alternative Educational Strategies which includes a progression of classroom and residential environmental moves, depending on _____'s behavioral progress."

  - 59 IEPs of NYS students included a general statement that "JRC employs court authorized Level III intervention to include Movement Limitation Procedures and the Graduated Electronic Decelerator to treat _____'s major problematic behaviors to include aggression, destructive, health dangerous, major disruptive, and noncompliant behaviors. JRC also employs Alternative Educational Strategies which includes a progression of classroom and residential environmental moves, depending on _____'s behavioral progress."

  - 8 students receiving Level III aversive interventions had IEPs that indicated that JRC would be *seeking* court authorization to use of Level III aversive behavioral interventions with no indication on the IEP that JRC had obtained court authorization.

  - 4 students were receiving Level III aversive interventions with no indication on the IEPs that JRC would seek or had obtained court approval.

Findings: ***The use of electric skin shock conditioning devices as used at JRC raises health and safety concerns.***

- In addition to the GED, JRC uses an additional form of electrical circuitry that automatically administers a series of aversives (e.g., skin shocks) as soon as a behavior is initiated. This device is not activated by a staff person and continues until the behavior stops. Should the student fall, for example, after getting out of his/her seat, the student would continue to receive electric shocks. As stated previously, NYSED could not find evidence that this automated electric shock device has been approved or cleared for marketing by FDA.

[5] Based on IEPs submitted by JRC to NYSED in March 2006.

- Since the GED has been modified in intensity and duration from other similar devices on the market, and there is a lack of peer reviewed research on the effectiveness and safety of the GED as used at JRC, NYSED has concerns regarding the long term health and safety of the students, particularly those students who may receive multiple electric shocks as part of their behavior plans.

- Despite the safety warning of the GED device that the GED should no be allowed to become wet or submerged in water, it was reported by JRC staff that for some students, the GED device remains on them while they take a bath or shower. Student records verified this and one student interviewed stated that she had been burned by the GED device while taking a shower. By this student's report, a new staff person was not adequately trained to administer the GED-4 shock during the student's shower, resulting in a burn to her skin where the device was attached.

Findings: ***The Contingent Food Program and Specialized Food Program may impose unnecessary risks affecting the normal growth and development and overall nutritional/health status of students subjected to this aversive behavioral intervention.***

- JRC's current food service program promotes a diet that is largely based on whole plant foods and actively restricts meat and dairy products. School aged children consuming plant-based diets need to have access to a variety of foods that provide adequate amounts of calories and nutrients such as protein, iron, zinc, Vitamin B-12, calcium, Vitamin D, riboflavin, Vitamin A, n-3 fatty acids and iodine to ensure proper growth and development.

- The Contingent and Specialized Food Programs focus only on the total number of calories "earned" and fail to identify on a daily basis what nutrients are being "discarded" as a result of the student not fulfilling their contracts. Students who do not fulfill their behavior contracts are made to throw a pre determined caloric portion of their food into the garbage.

- A review of the weight records, biochemical (lab work) and daily intake sheets for four NYS students on the contingent food program and one student on the specialized food program noted that at the current time all individuals are maintaining their weights and body mass index (BMI) within acceptable limits. However, the students' weights and body mass indexes are not complete indicators of the students' nutritional health status. There is no evidence that JRC conducts routine dietary intakes (both qualitative and quantitative) for participating in the Contingent Specialized Food Programs. Monitoring and evaluating routine dietary intakes is fundamental in assessing and identifying specific nutrition concerns or potential nutritional risks.

- JRC's document "Food Services at the Judge Rotenberg Educational Center" stated that in pertinent part each student is given a multivitamin each day. A review of four

Nutritional Assessments of individuals on the contingent and specialized food programs did not indicate that any of these students were receiving multivitamins.

- The Contingent and Specialized Food Programs do not indicate the order that the food portions should be served. Hot food leaving the kitchen at the appropriate temperature may be served to the student at any time during the established time frame for the program. A review of four individual's on the Contingent Food Program and one student on the Specialized Food Program indicated that the food programs for each meal can delay food consumption from two to four hours, compromising required hot and cold food temperatures.

- JRC is receiving federal funds to administer the National School Lunch and School Breakfast Program that are not properly payable. JRC did not have adequate documentation to support that all meals served at the school met the minimum standards established by the United States Department of Agriculture (USDA). We have notified John Magnarelli, Director of Special Nutrition Programs for USDA's Northeast Regional Office of this finding; he informed NYS that he has instructed the MDOE to formally notify JRC and request that they comply with the federal meal pattern requirements immediately.

Findings: ***The education program is organized around the elimination of problem behaviors largely through punishment, including the use of delayed punishment practices.***

- JRC's Director of Clinical Services stated that less than 10 percent of the enrolled students are receiving a "reinforcement" only program.

- JRCs "positive only intervention" includes a token system in which students are awarded tokens for the absence of exhibiting target behaviors and negatively reinforced by the removal of tokens or privileges for behaviors. It was observed that tokens are not awarded for exhibiting positive, appropriate alternative behaviors.

- Students with a reported history of harm to self or others are, prior to the Court approval for the use of Level III aversive behavioral interventions, often excluded from participating in the classroom and placed in "conference rooms" as a means to control targeted behaviors. Some of these students were observed to be fully restrained in restraint chairs and wearing movement limiting helmets. One student left the school building in full restraint (hands and feet restrained with Velcro straps in a restraint chair), clearly agitated and upset, and returned the following morning carried to the conference room fully restrained in what appeared to be the same chair.

- It was reported by JRC staff monitoring the conference rooms that students can spend the entire day in the small room, restrained if necessary, only to be slowly released as they feel the target behaviors are decreasing in intensity.

- It was observed that some of the students placed in the conference rooms were not exhibiting any inappropriate behaviors, and were playing video games and/or completing worksheets.

- A student, reported to have extreme head banging behaviors, was observed not exhibiting any inappropriate behaviors while having her hair braided by an adult in the classroom. Her appropriate interactions were not rewarded and/or acknowledged by the staff. However, the following day, this student was placed in a higher demand activity (academic computer work) and exhibited several head banging attempts. These behaviors were met with the ongoing loss of her contract. Loss of contract involved returning to the academic computer work. In this case, academic work was scheduled into the contract as a punishing consequence. The teacher reported that she would simply continue to lose her contract award and if the behaviors increased in intensity, it could result in the need to restrain her. Otherwise, no other intervention strategies were being used with this student. She is currently awaiting court approval for the use of Level III aversives.

- It was observed that the behavioral program for one student, not on a GED, consisted solely of alternating her between a low demand setting (couch and TV) to a situation of higher demand (academic computer work) which consistently resulted in "aggressive" behavior and her being placed in a restraint chair and helmet.

- Clinicians do not conduct routine preference assessments. Therefore the effectiveness and/or motivational value of some of the reinforcers used with students is diminished, and coincides with JRC's limited emphasis on the importance of positive reinforcement.

- JRC has a policy on modifying contingencies due to the special "pleading" of students. Part of the treatment program for students involves deliberately setting up unfair or mistaken directions or decelerative (application of a skin shock with a GED device) consequences for the students. The student is expected to handle these unfair situations successfully and not 'plead' or appeal to a psychologist or clinician regarding his/her treatment. In instances where the student "pleads" to the psychologist or clinician, there are consequences imposed on the student.

- JRC reported that four NYS students are approved for the "multiple application GED." For example, a target behavior of aggression exhibited would result in the application of five GED skin shocks for the single behavior.

- The GED is sometimes applied after a delayed period of time following the occurrence of a target behavior. It was reported by JRC's Director of Clinical Services that the routine administration of a skin shock by staff occurs 15-30 seconds after a target behavior has occurred. In other cases, the delay in the administration of the GED is much longer.

- The use of camera monitoring allows for delayed punishment. In cases where the student did not receive the GED, the individual reviewing the video footage from earlier in the day reports to the psychologist, who then makes the determination that the GED should be applied long after the targeted behavior occurred. One NYS student reported of an instance when she had returned to her residence and fallen asleep. She was woken without explanation and told to stand. She was given a GED across her stomach, and then was informed that the reason for the punishment was a target behavior earlier that day for which she did not receive a GED.

Findings: ***Some students at JRC are forced to exhibit target behaviors so aversive behavioral interventions can be used.***

- JRC's policy includes a procedure called a behavioral rehearsal lesson (BRL). BRL was reported by staff to be used infrequently and only for low frequency/high intensity behaviors. BRL involves an intervention that essentially forces a student to exhibit a target behavior so that the student can receive an aversive consequence for it. Staff reported that this type of behavioral intervention is difficult to participate in and dramatic to watch.

- It was reported by a JRC staff member that one of the BRL episodes involved holding a student's face still while staff person went for his mouth with a pen or pencil threatening to stab him in the mouth while repeatedly yelling "YOU WANT TO EAT THIS?" The goal was to aversively treat the student's target behavior of putting sharp objects in the mouth.

- It was reported that during a BRL, the student would still receive a GED for exhibiting an appropriate behavior, just less than for exhibiting a target behavior. For example, five GED applications would be given for a target behavior, such as mouthing towards the object, as opposed to one GED application for an appropriate behavior such as turning away from the object.

- JRC reported that nine NYS students are approved for the use of a BRL, and as of the second visit, none have been conducted on these students.

Findings: ***There is limited evidence of comprehensive functional behavioral assessments (FBAs), in accordance with the Individuals with Disabilities Education Act (IDEA), being conducted at JRC.***

- JRC's website includes the following statement: "We are very familiar with the field of functional analysis, but frankly we have little use for it at JRC." This statement and resulting practice at JRC are contrary to the findings in peer-reviewed journals demonstrating the effectiveness of functional analysis in finding effective, nonaversive interventions for problem behaviors and the requirements of IDEA for functional behavioral assessments.

- JRC relies heavily on brief observations of student behavior in combination with a

history of the student's problems to recommend the use of aversive behavioral interventions.

- JRC's process for assessing problem/target behaviors lacks specific information on the function/cause of the actual behavior, and primarily seeks to eliminate behavior through the use of punishment, including aversive interventions. Review of students' program plans did not reveal the identification of or interventions to be used to address the functions the behaviors were serving for the students.

- JRC's process for assessing behaviors does not employ the standard practice of analyzing behaviors, which incorporates multiple methods in identifying the function/cause of problem/target behaviors. JRC's use of restraints for self-abusive behavior or the attention paid to students' negative behaviors were not even considered as possible reinforcers of negative behaviors, yet at least one student's record indicated increases in behaviors when these interventions were employed.

- There was no systematic focus on recording antecedent behaviors in order to modify or eliminate triggers so that problem behaviors as well as the punishing consequences could be prevented.

- Baseline data is not collected on behaviors across settings.

- Important incremental progress a student may make on a target behavior can be missed because JRC only gathers data on broad, generic behavioral categories: "aggression, health dangerous behavior, destructive behavior, major disruptive behavior and noncompliant behavior."

Findings: Students are provided insufficient academic and special education instruction, including insufficient related services

- Students placed in the more segregated and restrictive settings (i.e., the small conference room) were not observed to receive instruction, even computer-based instruction, and a teacher is not available to provide instruction in that setting. The room is monitored by MHAs with high school diplomas and other nonteaching staff.

- Most students in other classrooms at JRC receive instruction in the form of a computer-based curriculum that provides learning through repetition. While JRC staff report that the curriculum is aligned with the NYS standards, this was not verified. Although JRC's Curriculum Director contends that the curriculum covers all content domains and is aligned with NYS standards, one teacher reported that students' work on whatever interests them in the content areas.

- Many students spend their instructional day at individual computer terminals, performing the same instructional task over and over. The repetitive nature of the task was evident when the team visited classrooms and saw students repeatedly tapping unresponsive computer screens.

- Observations showed that a return to academic task was often used as a consequence for problem behaviors that occurred during breaks or during earned activities. Thus, academic activity is frequently programmed as a punishing consequence. Furthermore, JRC's Program Descriptions consistently prescribe positive consequences for absence of problem behaviors, but do not prescribe specific reinforcement procedures for completion of work or accuracy of work completed.

- One school district documented that JRC placed a student in a room where there were no desks or computers and that she worked on worksheets and flashcards, and often did not leave her residence to attend school due to behaviors exhibited in the residence.

- There was no evidence of social skills instruction or use of a curriculum or instruction to teach alternatives to aggressive behaviors. When asked about their social skills curriculum, JRC staff described opportunities to socialize and opportunities for recreational trips. None of the staff mentioned any of the published social skills curriculum that are in common use for the treatment of children with autism spectrum disorders or curricular for teaching prosocial and anger management strategies. For students with autism and students with diagnoses that represent social difficulties (e.g., oppositional defiant disorder; conduct disorder), there was no evidence of teaching students positive social ways to communicate or of teaching or programming for social skills during the observation periods. The complete lack of organized, instructional social interaction periods and reinforcement for positive social interactions also prevented developing time with other children as a reinforcing activity. This is a particularly glaring omission in programming when contemplating transition to a less restrictive school or adult settings where positive social play and interaction with other children and adults is necessary for success.

- During the May 16-18 site visit, it was confirmed that the majority of staff serving as classroom teachers at JRC are not certified teachers. One crisis classroom teacher the team spoke to has a high school diploma and had acquired college credits through distance learning Internet courses.

- During the initial site visit, the team reviewed the credentials of the teaching staff in the 21 classrooms at JRC:
    - One is certified/licensed by the Massachusetts Department of Education (MDOE) as a special education teacher;
    - Eleven have academic waivers for teaching "moderate disabilities" or "severe disabilities" from MDOE; and
    - Nine have no certification, licensure or MDOE academic waivers to teach special education.

- Classroom visitations by the review team revealed that limited interactions occur between students or between staff and students. The main interactions witnessed

involved staff rotating GED electrodes, as required for GED safety, on students' bodies when an alert, set at hourly intervals, instructed staff to rotate the electrodes. The rotation of electrodes is necessary to prevent skin burns that may result from repeated application of the shock to the same contact point on the student's body. Other observed interactions involved staff making rote statements regarding the student's behavior program, such as "turn around and keep working" or limited social praise "good eating."

- Students attend the school seven days per week from 9 AM to 4 PM; teachers are not present on the weekend days. Teachers interviewed by the team could not describe what the students did on the weekends at the school.

Findings: ***JRC does not support the implementation of IEP recommended related services and/or promote the transition of students to less restrictive environments.***

- A review of JRC's internal IEP admission checklist states that staff 'eliminate' (where possible) related service recommendations, such as speech and language therapy or counseling. While JRC employs or contracts with some related service providers, documentation showed that JRC takes steps to have CSEs eliminate recommendations for related services.

- Student files contained documentation that JRC consistently requests that speech and language therapy, occupational therapy (OT), and counseling be removed from a student's IEP. A review of IEPs of NYS students showed:
  - 23 students had CSE recommendations for counseling that were later eliminated based on JRC's recommendation;
  - 12 students had IEP recommendations for speech and language therapy that were later eliminated based on JRC's recommendation;
  - Seven students had IEP recommendations for OT that were later terminated based on JRC's recommendation and one continued OT on a "one hour per month – consult" basis; and
  - Four students had IEP recommendations for PT that were later terminated based on JRC's recommendation.

- Twenty students' current IEPs include recommendations for speech and language therapy. JRC records indicate that 12 students are receiving speech language therapy with most at a duration and frequency of 1x30 min/week (below the minimum NYS regulatory requirement).

- At JRC, behavioral counseling is provided in a nontraditional format in which students are expected to learn how to self-manage their target behaviors. Students who request to speak with a psychologist must write a note or "business letter" requesting a session and "pay" with their tokens. (The nature of counseling is unclear). The Director of Clinical Services indicated that other types of counseling could be used, but that it is not routinely offered.

- Based on classroom observations, there was no evidence that language instruction, as required by NYS regulations for students with autism, was being provided.

- Out of 148 NYS students at JRC, 128 students receive no related services. The provision of related services was not observed during either visitation.

- Observers did not see a structured, systematic program for teaching of generalization of skills, self-care, social/recreational or community skills in the school or the residences to assist students in post-secondary transitions or to promote transitions to less restrictive settings.

- A student interviewed stated that she had entered JRC at the age of 19 with the expectation that she would receive vocational training while she resolved her emotional and behavioral problems. She had not received any vocational training and still remained in the most restrictive settings offered by JRC. This student wept as she asked the team to bring her back to New York.

- Records and staff indicate that, once placed, very few students' transition out of JRC to a less restrictive environment prior to aging-out.

Findings: ***Behavioral Intervention Plans (BIPs) are developed to support the use of aversive behavioral interventions with very limited evidence of students "being faded" from the GED device***

- The BIPs contain broad, generic behavioral categories with the primary behavioral intervention being the use of the GED across various target behaviors (ranging from aggression to noncompliance).

- Few students who present aggressive behaviors secondary to a thought and/or developmental disorder are provided with the necessary therapeutic interventions, but are instead treated only with an aversive intervention for the aggression.

- The BIPs do not identify specific skills training for developing appropriate replacement or alternative skills to replace targeted behaviors.

- A review of a student's file indicated that the student was receiving Level III aversive interventions for "aggression", but according to the teacher's notes, the only aggressions exhibited by the student were in anticipation of the GED. The student was not otherwise aggressive.

- Fading procedures are not individualized and not well specified for all the aversive interventions used by JRC. JRC's policy states: "GED fading will not occur until the student has gone a minimum of one year with no major behaviors" and the Director of Clinical Services confirmed that the expectation for all students is that target behaviors, across all categories, are reduced to a zero frequency rate for one year.

By JRC policy, students follow a set sequence by times of the day, days of the week or specific activities to fade the GED. This set sequence does not take into account data on the times and places behaviors are most and least likely to occur. The criterion of one year without a "major disruptive behavior" is extremely long and is not determined based on the circumstances for each individual student.

- Many NYS students remain on the GED for the entire time they attend the center. At least two students have been on the GED device since 1999; others began in 2000 and 2001.

- One student was initially placed on the GED in 1999. The GED was faded at one time and then resumed and the student is currently on the device. Six NYS students have had the GED faded (they are no longer wearing the GED device). However, it was reported that a "faded" student could be placed back on the GED if he/she demonstrated previously inappropriate target behaviors.

Findings: ***JRC promotes a setting that discourages social interaction between staff and students and among students.***

- Policy and procedures at JRC support limited social interactions between staff and students. Positive/appropriate skills' training was not observed in the classrooms.

- There was very limited social interaction between the classroom staff and students except for 1:1 prompting (jargon) to computer tasks and/or the awarding or removal of tokens.

- JRC does not promote the development of social skills for any of their students and in fact requires that the students not attempt social interactions with staff or classmates as part of their behavior programs. Questions to staff about programs for social skills development were always answered by descriptions of social opportunities that included recess as well as scheduled recreational outings. The recreational outings were with groups of students and provided no opportunities for interaction with members of the general community.

- Several observations were made of the outdoor recess periods and lunch breaks. The recreation area was set up with swings and a wooden structure for climbing and walking across bridges and several plastic slides. The area was very well maintained and appropriate for children under seven or eight years old. However, the students during all observations appeared to be adolescents. Staff was attentive and providing appropriate supervision to students and the interactions between staff and students were positive, supportive and respectful. However, they tended to be helping interactions rather than conversations or play. During five observations involving a total of 59 students, there were no instances of students socializing with other students and only five instances observed of students socializing with staff.

- Social interactions between students reportedly occur in the Big Reward Store where students go to select a reward for keeping to contracts. When questioned about friendships and social interactions among students, the students interviewed stated that they were unable to socialize in a natural way.

- Opportunities to socialize with peers must be earned through compliance with behavioral contracts.

- Students in classrooms were docile and compliant and did not attempt to socially engage, either verbally or with eye contact, anyone in the rooms. This was also apparent in the residences visited by the team. Staff indicated, on at least three occasions, that it was unsafe to allow students to socialize because in the past students had plotted against staff.

- After arrival from school, students were observed sitting around the kitchen table with sets of small manipulative (e.g., pegboards) and did not interact, nor were they encouraged to interact, with staff or each other.

Findings: ***The privacy and dignity of students is compromised in the course of JRC's program implementation.***

- Video surveillance system monitoring includes most bathrooms and all bedrooms but no formal staff monitoring system is in place to ensure the privacy and dignity of students/consumers during intimate grooming/hygiene or personal sexual behavior (e.g., masturbation). For example, no procedures were in place to ensure staff was not observing opposite sex residents during showering.

- One NYS student's behavior program states, "C will wear two GED devices. C will wear 3 spread, GED electrodes at all times and take a GED shower for her full self care." This student, as are all students at JRC, is monitored through JRC's video surveillance system and a staff person would monitor her in the shower.

- Students were observed as they arrived and departed from school. Almost all were restrained in some manner, some with metal 'police' handcuffs and leg restraints, as they boarded and exited the vehicles. Several students are transported in wheeled chairs that keep them in four-point restraint.

Finding: ***The collateral effects (e.g., increased fear, anxiety or aggression) on students of JRC's punishment model are not adequately assessed, monitored or addressed.***

- There does not appear to be any measurement of, or treatment for, the possible collateral effects of punishment such as depression, anxiety, and/or social withdrawal.

- Student interviews revealed reports of pervasive fears and anxieties related to the interventions used at JRC. Students verbally reported a lack of trust, fear, feeling upset/anxious and loneliness.

- One student's behavior plan indicated that the student is to be rewarded when he does not react to a staff member preparing to or administering the GED to another student, implying that this student may be having collateral effects when peers receive skin shock consequences.

- One student stated she felt depressed and fearful, stating very coherently her desire to leave the center. She is not permitted to initiate conversation with any member of the staff. She also expressed that she had no one to talk to about her feelings of depression and her desire to kill herself and told the interviewing team that she thought about killing herself everyday. Her greatest fear was that she would remain at JRC beyond her 21st birthday.