Technical Note 01-98

Review of Operations
HWRS Installation at
CSP Calipatria, CA

Dated December 1, 1998

Background

The Hydro-Force Water Restraint System (HWRS) was first operated by the facility on Friday, April 3, 1998. The system was subjected to a 90 day operational test beginning April 3, 1998, continuing to July 3, 1998. The system was operated throughout the operational test period and has been in continuous operation ever since. At this time the HWRS has been on operation for over 7 months. This technical note documents the operation of the system and our findings during this time. Please note: This technical note reflects the findings and comments of Hydro-Force, Inc., the manufacturer. You may also wish to contact the facility for additional comments and information.

Summary

The following are summary comments:

1. The HWRS has been in operation practically every day since completion of installation in April, 1998.
2. The correctional officers appear to rely on the HWRS in every incident when inmate fighting occurs.
3. The HWRS has stopped virtually all fights within 15 seconds from the beginning of fighting.
4. There have been no injuries requiring treatment or hospitalization resulting from the use of the HWRS.
5. The inmate-to-inmate injuries that would normally result from protracted fighting have been substantially reduced.
6. Inmate discomfort typically lasts between 15 and 45 minutes and has required no special treatment.
7. The HWRS is activated only to stop fighting incidents. The warning buzzer automatically sounds to warn inmates. The HWRS is not fired at the incident until completion of the warning tone.
8. Officers have learned that the inmate does not have to be impacted by the water stream to stop fighting. In most cases firing over the heads of the combatants serves to stop the aggression. In virtually all cases, “close-counts”.
9. Video tapes of incidents confirm that officers have stopped fighting by shooting several water plus chemical pulses at the incident although seldom directly striking the combatants.

Operational Procedure

1. The current operation procedure calls for several pulses of water only before applying water plus chemical. This procedure may be changed to pulse water plus chemical sooner if it is desired to stop fighting more quickly.
2. Incident reports have been prepared by the facility covering each and every incident where the HWRS was used.

Use of Water Force

1. It has become apparent that the fighting inmates are aware of the HWRS water stream force and are not concerned about injuries. There has been no recorded incident where the combatants have been "knocked off their feet" or "washed away".
2. The combatants are typically in a rigid stance during fighting and are not physically affected by the force of the water pulse.
3. The force of the water stream has a disorienting affect however, and fighting can be stopped with water only in some cases.
4. Inmate comments reveal that the inmate fighting activity is most affected by the presence of the chemical agent.

Chemical Injection

1. The chemical percentage used by the HWRS is consistently lower than the percentages recommended by the California Department of Justice or as furnished by manufacturers of personal Pepper Spray dispensers.
2. A typical pepper Spray canister carried for personal use will contain 10% Pepper Spray mixture, or about .20% Oleoresin Capsicum.
3. The HWRS utilizes less than an 8% Pepper Spray mixture, or about .16% Oleoresin Capsicum. It should be noted that the California Department of Justice allows an Oleoresin Capsicum of .2% to .9% for law enforcement use.
4. While a higher pepper spray concentration could be used, it has not been recommended based on the current operational success of the HWRS system.

Recommendation

1. It is recommended that the HWRS system operation be reviewed on a yearly basis.
2. Changes to operational procedures may be recommended based on periodic reviews of system effectiveness.