



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

MAR 15 1977

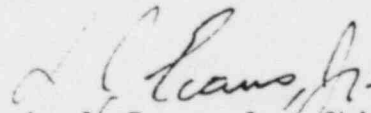
MEMORANDUM FOR: Upgrade Working Group

FROM: L. J. Evans, Jr., Chief  
Requirements Analysis Branch

SUBJECT: BASIC CAPABILITIES NEEDED TO PROTECT SNM WHILE IN-TRANSIT

Attached are drafts of the narratives for the three basic capabilities for protecting SNM while in-transit. These drafts are a follow-on to the discussions of the basic capabilities paper held last Wednesday, March 9, 1977.

Please submit your comments by COB Thursday, March 17th so we can discuss them at our next meeting on March 18th at 2 pm, Room 825. Contact Bob Nulsen at 427-4043 if you have any questions.

  
L. J. Evans, Jr., Chief  
Requirements Analysis Branch

Attachment

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NARRATIVES FOR TRANSPORTATION BASIC CAPABILITIES

Capability #1, Access Control

The safeguard<sup>s</sup> system shall provide the capabilities to prevent the undetected introduction of unauthorized personnel and materials (including SNM in unauthorized amounts) aboard transports by stealth or deceit.

The licensee must provide or make arrangements for access control systems that are able to detect unauthorized attempts to gain access by persons and to detect attempts to load unauthorized material onto transports, in sufficient time to permit an effective and acceptable response.

The following safeguard<sup>s</sup> subsystems are necessary to assure detection capabilities.

1. Access Authorization Controls. The licensee shall provide or make arrangements for authorization controls and procedures for personnel that will:

- a. establish job positions and identify individuals whose duties require access to transports, transfer-point storage areas *of and* escort vehicles.
- b. limit access to those individuals.
- c. assure the trustworthiness of personnel having access to SNM.
- d. assure access to SNM only when individual is scheduled to perform his job function.
- e. establish loading and removal procedures for both routine and emergency operations.

2. Access Detection Systems. The licensee shall provide or make arrangements for detection systems that will:

- a. verify the integrity of, and confirm the identity of SNM containers placed in or removed from transports or storage areas.
- b. assure that unauthorized materials are not placed on the transport.
- c. assure that ~~unauthorized~~ tampering with transport doors and cargo containers can be detected.
- d. immediately detect and inform reaction forces (escorts) of:
  - (1) any unauthorized penetration of transports;
  - (2) any introduction of unauthorized material aboard transports; and
  - (3) any unauthorized person or thing within the established temporary protected areas and storage areas.
- e. collect adversary information sufficient to allow the escort control element to determine appropriate response.
- f. assess the gathered information.
- g. communicate information and alarm annunciations to the escort command and control element.

3. Isolation Measures. The licensee shall provide or make arrangements to isolate transports at all scheduled and emergency stops by measures that will:

*Handwritten signature and a question mark.*

a. channel casual flow of persons or materials to a temporary protected area access point.

b. assist in detection of unauthorized activity.

Capability #2, Cargo Security

A transportation safeguards system shall provide effective cargo security measures in order to prevent theft and protect against sabotage of SNM. The licensee shall provide or make arrangements for protective measures which detect attempts to steal or sabotage SNM and also which delay the adversary for sufficient time to permit an effective response.

The following safeguards subsystems are necessary to the physical protection capabilities.

1. Escorts - The transportation safeguards system shall provide an escort of armed guards and escort vehicles to protect SNM in-transit.

The licensee shall arrange for an in-transit escort organization that will:

a. Provide trained, equipped and qualified guards to carry out all anticipated escort duties including immediate reaction procedures.

b. Provide mobile and redundant escort command and control for direction and coordination of transport and escort reaction activities.

e. Establish plans to cover all anticipated situations. (Ref Contingency Plans Appendix B).

2. Detection Systems - The licensee shall provide or arrange for detection systems and procedures which, in a timely manner, will:

a. Immediately detect and inform escort command and control of:

(1) any unauthorized person or thing within the established temporary protected area;

*o, some more action  
o detect about activities  
involving truck transport  
while vehicle moving?*

*need to get the  
escort the security  
overcome*

(2) any unauthorized penetration of transports; and

(3) any introduction of unauthorized material onto transports.

b. Collect information sufficient for the escort command and control to determine appropriate response.

c. Allow escort command and control to assess the gathered information.

d. Communicate escort command and control assessment to escorts.

e. Provide both close-up and stand-off surveillance operations to gather, assess, and communicate to escort command and control, information on the enroute transport status.

3. Planning/Information Systems - The licensee shall arrange for planning and information systems not co-located with the transport & escort force that will

a. Gather and assess information to provide pre-shipment planning to reduce shipment vulnerability.

b. Gather updated route conditions and adversary activity information while the shipment is enroute to assess for increased shipment vulnerability and to communicate assessment to escort command & control authority for implementation of appropriate response action.

c. Verify delivery of SNM shipments.

4. Transport Security Features - The licensee shall provide or make arrangements for vehicles which will delay the access to SNM sufficiently to permit the detection and response systems to function in an effective manner.

*advance notice  
to vehicle  
Management  
through  
the*

Capability #3, Response (REF, Contingency Plans, Appendix B)

The transportation safeguards system shall provide a response capability that is in support of and separate from the escort force and shall include a LLEA element and others if necessary. The following safeguards subsystems and functions are necessary to assure a timely and effective response capability.

1. Response Force Liaison - The licensee shall provide liaison with LLEA to assure their assistance to the escort force in cases of emergencies.
2. Response Plan - The licensee shall establish response plans to prevent the theft of and protect against the sabotage of SNM for all anticipated situations. The plan shall include:
  - a. An assessment procedure providing a methodology for evaluating each anticipated situation.
  - b. A procedure for when and how to interact with the response forces.
3. Communications - The licensee shall provide communication facilities and equipment that will:
  - a. Enable escort command and control to communicate on non-routine situations to a movement control center for assessment.
  - b. Enable the movement control center to communicate to escort command and control to assist in carrying out actions as identified in response plan.
  - c. Enable escort command and control to communicate with escort vehicles for implementation of response plan.

*Redundant communications*

*Limit on frequency per channel  
Exclusion use  
# of vehicles  
CB radio  
other eq.*

d. Enable both escort command and control and movement control center to notify LLEA of need for assistance as outlined in the response plan.

e. Enable movement control center to alert appropriate agencies of non-routine situations as outlined in the response plan.

*What kinds of <sup>arms</sup> and anti-aircraft?*



I 4

2	INITIALS	FILE
	DATE	INFORMATION
3	INITIALS	NOTE AND RETURN
	DATE	PER CON - VERSATION
4	INITIALS	SEE ME
	DATE	SIGNATURE

REMARKS

Attached are annotated copies/  
pages of the MARCH 15, 1977  
Basic Cap. for In-Transit. Diets  
McLormick feels that it should  
be re-structured into ① ~~Cap~~  
Protection consisting of present  
cargo security section + original  
capability ~~TP~~. ② Response - 5 and  
as <sup>2 of</sup> Cap # 3, and ③ Communication.

Do NOT use this form as a RECORD of approvals, concurrences,  
disapprovals, clearances, and similar actions.

FROM (Name, office symbol or location)	DATE
OS Chambers	3/21/77
	PHONE



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*L. J. Evans, Jr.*  
L. J. Evans, Jr., Chief  
Requirements Analysis Branch

Attachment

*dupes of ~~8212880006~~*

*still too much effort to relate  
Biosched capabilities to transportation -  
W work + work.*

NARRATIVES FOR TRANSPORTATION BASIC CAPABILITIES

Capability #1 Access Control

*cover  
Under  
protection*

*not complete  
copy by [unclear]  
statement*

The safeguard system shall provide the capabilities to prevent the undetected introduction of unauthorized personnel and materials (including SNM in unauthorized amounts) aboard transports by stealth or deceit.

The licensee must provide or make arrangements for access control systems that are able to detect unauthorized attempts to gain access by persons and to detect attempts to load unauthorized material onto transports, in sufficient time to permit an effective and acceptable response.

The following safeguard subsystems are necessary to assure detection capabilities.

1. Access Authorization Controls. The licensee shall provide or make arrangements for authorization controls and procedures for personnel that will:

- a. establish job positions and identify individuals whose duties require access to transports, transfer-point storage areas or escort vehicles.
- b. limit access to those individuals.
- c. assure the trustworthiness of personnel having access to SNM.
- d. assure access to SNM only when individual is scheduled to perform his job function.
- e. establish loading and removal procedures for both routine and emergency operations.

NARRATIVES FOR TRANSPORTATION BASIC CAPABILITIES

Capability #1, Access Control

The safeguard system shall provide the capabilities to prevent the undetected introduction of unauthorized personnel and materials (including SNM in unauthorized amounts) aboard transports by stealth or deceit.

The licensee must provide or make arrangements for access control systems that are able to ~~detect~~ <sup>prevent</sup> unauthorized attempts to gain access by persons and to ~~detect~~ <sup>prevent</sup> attempts to load unauthorized material onto transports, in ~~sufficient time to permit an effective and acceptable response.~~ <sup>to be limited</sup>

The following safeguard subsystems are necessary to assure detection capabilities.

1. Access Authorization Controls. The licensee shall provide or make arrangements for authorization controls and procedures for personnel that will:

- a. establish job positions and identify individuals whose duties require access to transports, transfer-point storage areas or escort vehicles.
- b. limit access to those individuals.
- c. assure the trustworthiness of personnel having access to SNM.
- d. assure access to SNM only when individual is scheduled to perform his job function.
- e. establish loading and removal procedures for both routine and emergency operations.

f. establish procedures for verifying that personnel ~~possess~~ <sup>possess</sup> no shipment ~~the~~ <sup>are</sup> members of unauthorized transportation company.

*Handwritten notes:*  
S...  
d...  
with...  
...  
...  
...  
...  
...  
...  
...

① ~~Procedures~~ →

- Personnel
- Delay
- Detection &
- Contingency
- Tactics

Capability #2, Cargo Security

A transportation safeguards system shall provide effective cargo security measures in order to prevent theft and protect against sabotage of SNM. The licensee shall provide or make arrangements for protective measures which detect attempts to steal or sabotage SNM and also which delay the adversary for sufficient time to permit an effective response.

The following safeguards subsystems are necessary to the physical protection capabilities.

Delays, detection, access control, cargo security

1. Escorts - The transportation safeguards system shall provide an escort of armed guards and escort vehicles to protect SNM in-transit.

The licensee shall arrange for an in-transit escort organization that will:

g.m.c.

- Provide trained, equipped and qualified guards to carry out all anticipated escort duties including immediate reaction procedures.
- Provide mobile and redundant escort command and control for direction and coordination of transport and escort reaction activities.
- Establish plans to cover all anticipated situations. (Ref Contingency Plans Appendix B).

2. Detection Systems - The licensee shall provide or arrange for detection systems and procedures which, in a timely manner, will:

3

a. Immediately detect and inform escort command and control of:

(1) any unauthorized person or thing within the established temporary protected area;

High level of observation

Delays  
Detection  
Contingency  
Response

②  
M.M.

Capability <sup>(2)</sup> Response <sup>Should be</sup> REF, Contingency Plans, Appendix B)

The transportation safeguards system shall provide a response capability that is in support of and separate from the escort force and shall include a LLEA element and others if necessary. The following safeguards subsystems and functions are necessary to assure a timely and effective response capability.

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b. A procedure for when and how to interact with the response forces.

*Capability* 3. Communications <sup>(3)</sup> <sup>Should be</sup> <sup>separate</sup> The licensee shall provide communication facilities and equipment that will:

a. Enable escort command and control to communicate on non-routine situations to a movement control center for assessment.

b. Enable the movement control center to communicate to escort command and control to assist in carrying out actions as identified in response plan.

c. Enable escort command and control to communicate with escort vehicles for implementation of response plan.