

August 18, 2006

MEMORANDUM TO: Catherine Haney, Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation
/RA/

FROM: Michael J. Case, Director
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

SUBJECT: GUIDANCE FOR REVIEW OF LICENSEE REQUESTS TO USE
DELTA PROTECTION BLU SUIT SYSTEMS BASED ON THE NRC
APPROVED TOPICAL REPORT

In order to streamline all the licensee requests for the use of the Delta Protection BLU Suit Systems, topical report TR MURUBLU05NP, "Topical Report for Delta Protection Mururoa BLU Suit Systems" was submitted by Delta Protection, France on October 27, 2005. By letter dated April 10, 2006, the Nuclear Regulatory Commission (NRC) issued a safety evaluation (SE) which approved the use of this Topical Report as the basis of licensee's submission. Section 4.0 of this SE specified approved device configurations and conditions of use for the Delta Protection BLU suit systems.

However, the topical report SE did not provide any guidance to the licensees for preparing their requests, nor did it provide guidance to the Division of Operating Reactor Licensing (DORL) Project Managers (PMs) to review the in-coming requests. In addition, the Health Physics Branch staff recently determined that it is not sufficient to comply with Section 4.0 of the SE alone, as previous licensee requests have done, but that in addition the licensee's use of the suits needs to be consistent with the topical report, and address such aspects as radiation protection personnel training.

The Health Physics Branch requests that the DORL PM's review the in-coming licensing requests for use of the Delta Protection BLU Suits against the list of commitments in Enclosure 1 to this memorandum, (or request the licensees to make these commitments via the Request for Additional Information process) and prepare the letter of approval (the final package) by using the sample branch letter in Enclosure 2 to this memorandum. This will expedite and streamline the licensing process by allowing DORL to review the licensee requests against the topical report SE. The Health Physics Branch will support those reviews as needed, and will concur on the SE for each submittal.

Enclosures:

1. Required licensee commitments
2. Sample NRC letter of approval

CONTACT: Roger Pedersen, NRR/DIRS
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(301) 415-9676

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REQUIRED LICENSEE COMMITMENTS

The main body of the licensee request must state, “. . . the use of the Delta Protection Mururoa BLU Suit System will be consistent with the topical report TR MURUBLU05NP and within the “Approved Device Configurations and Conditions of Use” specified in Section 4.0 of the NRC staff’s SE dated April 10, 2006, for TR MURUBLU05NP.”

In addition, the licensee request must have the following commitments :

1. Mururoa BLU one-piece encapsulating suit (of either PVC or Ethyfuge construction), fitted with 1) a Micronel C500X-012EK-AB60 blower with a C501A-012Ak-A battery (consistent with the parts list in Section 7 of Attachment 6.6.6 to TR MURUBLU05NP) and 2) four Scott FP 10 P3, or four Delta Protection P3, high efficiency particulate filter cartridges. All four filter cartridges must be matching and replaced as a set.
2. Procedures for use of the suit systems are integrated into the respiratory programs required by Subpart H of 10 CFR Part 20. Fit testing of user is not applicable to fully encapsulating suits. Prior to use, wearers are trained on these conditions of use as well as the emergency escape features of the suits.
3. Suits are used in accordance with recommendations in Attachments 6.6.4, 6.6.5, and 6.6.6 of TR MURUBLU05NP.
4. Suit enclosures are single use only, and are discarded after use. Unused suit enclosures are stored in their original manufacturer’s packing (in an environment not colder than 32 deg. F, nor hotter than 140 deg. F), with a maximum storage shelf-life of 3 years. Suits are not to come in contact with anything colder than 41 deg. F, nor hotter than 140 deg. F, during use.
5. Suits are donned with a fully charged battery pack installed on the blower. The maximum period of use (timed from a fully charged battery), is 4 hours with the blower set at 600 l/min, and 7 hours with the blower at the 400 l/min setting.
6. Suits are used only in atmospheres containing specific contaminants in concentrations that are not immediately dangerous to life or health (IDLH), as given in NIOSH “Concept for Industrial Power, Air-purifying Respiratory Standard,” Draft for Comment, May 30, 2005, and have an oxygen content of at least 19.5 percent by volume.
7. Communication channels will be established with the supplier to report any defects, if experienced, with the device, and to ensure that any manufacturer’s notifications concerning the suit systems are received in a timely manner.

Based on the above configuration and conditions, the licensee must also commit to the following respiratory protection program elements and controls found in section 6.4 of Topical Report TR MURUBLU05NP:

1. Prior to use, the Mururoa BLU self fed suits will be integrated into the respiratory protection programs, using the information provided by the manufacturer.

2. Prior to use, new lesson plans will be developed to train workers on Mururoa BLU's features, donning, use and removal, cautions and use of mouth strips and tear off strips for routine and emergency egress.
3. Prior to use, Health Physics personnel will be provided additional training for selection, approval, issue, equipment set-up, operation and maintenance instructions for Mururoa BLU suits.

SAMPLE APPROVAL LETTER

The following is an example of wording that could be used in an approval letter:

“Dear XXX:

By letter dated XXX, 2006 (Agencywide Documents and Access Management System (ADAMS) Accession No. XXXX), [as supplemented by letter dated xxxx, 2006 (ADAMS Accession No. XXXX)], pursuant to Part 20 of Title 10 of the *Code of Federal Regulations* (10 CFR 20), Section 1703(b), [the licensee] requested the U.S. Nuclear Regulatory Commission’s (NRC’s) authorization for use of equipment that has not been tested or certified by National Institute for Occupational Safety and Health (NIOSH) for [the licensee].

Specifically, [the licensee] requested authorization to use the Delta Protection’s Self Fed Single Use “Mururoa BLU” Suit Systems (hereafter referred to as the Delta BLU Suit), which are described in “Topical Report for Delta Protection Mururoa BLU Suit Systems,” dated Thursday, October 27, 2005 (TR MURUBLU05NP), manufactured by Delta Protection, France, and previously reviewed and approved by the NRC by letter dated April 10, 2006 (ADAMS Accession No. ML060950499).

The NRC staff’s safety evaluation (SE) for TR MURUBLU05NP, dated April 10, 2006, concluded the following:

Based on the NRC staff’s review of the referenced TR, the NRC staff concludes that the use of the Mururoa BLU (PVC [polyvinyl chloride] or Ethyfuse) protective suit systems, consistent with the configuration and conditions of use noted above, is in accordance with the requirements of 10 CFR Part 20. Granting an approval for the use of these suits with an APF (assigned protection factor) of 2000, against airborne particulate contamination, will improve overall worker safety while working in high surface contaminated areas, and in high and potentially high airborne radioactivity areas, satisfies the 10 CFR Part 20 ALARA (as low as reasonably achievable) requirements, and is, therefore, acceptable.

Additionally, the NRC approval of TR MURUBLU05NP specified the “Approved Device Configuration and Conditions of Use,” for the use of the Delta BLU Suits in Section 4.0 of the NRC staff’s SE.

In its request, [as supplemented], [the licensee] committed to use the Delta BLU Suits consistent with TR MURUBLU05NP as well as the “Approved Device Configuration and Conditions of Use,” for the use of the Delta BLU Suits in Section 4.0 of the NRC staff’s SE. Also, [the licensee’s] request, [as supplemented], did not request any exceptions from any of the restrictions with respect to the configurations and conditions of use of the Delta BLU Suits.

The NRC staff finds that the regulatory commitments made by the licensee [in Attachment 1 to the supplemental letter dated XXX, 200X], are sufficient to ensure that the licensee will implement the use of this respiratory protective device, consistent with TR MURUBLU05NP, and within the NRC staff’s SE dated April 10, 2006.

Enclosure 2

Therefore, based on the information provided in your request, [as supplemented], and the above discussion, the NRC staff concludes that the licensee's request for the use of the Delta BLU Suits is acceptable for [the licensee]. The use of the Delta BLU Suits must be (1) consistent with TR MURUBLU05NP, with the APF value of 2,000 and (2) within the NRC staff's SE dated April 10, 2006.

Please contact me at (301) 415-xxxx, or [the PM] at (301) 415-xxxx, if you have any questions on this matter."