**UNITED STATES OF AMERICA**
**DEPARTMENT OF TRANSPORTATION**
**UNITED STATES COAST GUARD**

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| UNITED STATES COAST GUARD) | ) | Docket No. CG S&R 01-0300 |
| | ) | Coast Guard No. PA 01000636 |
| | ) | |
| v. | ) | |
| BRIAN APPLETON | ) | |
| Respondent. | ) | |
| | ) | |

## DECISION AND ORDER

This proceeding is brought pursuant to the authority contained in 46 USC § 7703; 5 USC §§ 551-559; 46 CFR Parts 5 and 16, and 49 CFR Part 40.

Respondent holds a Merchant Mariners Document Number ***[REDACTED]*** issued to him by the Coast Guard on January 25, 2000. It qualifies him to serve as an ordinary seaman, wiper and in the Steward's Department. He has served as Engineer. Jurisdiction is established in this matter by reason of Respondent's licensure. See, 46 U.S.C. §7704; NTSB Order No. EM-31 (STUART)**;** Commandant Appeal Decision, No. 2135 (Fossani).

## PRELIMINARY DISCUSSION

The Coast Guard charged Respondent with misconduct alleging a refusal to submit to a 46 CFR Part 16 drug test. The refusal to submit allegation arises from the Respondent's submission of a urine specimen, which was considered inconsistent with normal human urine, which is characterized as substituted. A substituted specimen by regulation is the equivalent of a refusal to submit to a chemical or drug test as provided in 49 CFR § 40.191(8)(b), which provides that a refusal to submit includes a Medical Review Officer [MRO] has reported a verified substituted test result.[1]

In these cases the Coast Guard must prove its case against the mariner charged on the basis of reliable, probative and substantial evidence. 46 CFR § 5.63. This substantial evidence standard has been determined to be the equivalent of the preponderance of the evidence standard. See Commandant Decision on Appeal 2472 (Gardner) and *Steadman v. United States*, 450 US 91 (1981) which concluded that the preponderance of evidence

[1] *Refuse to submit* is defined in 46 CFR § 16.105 as: "you refused to take a drug test as set out in 49 CFR 40.191."

standard shall be applied in administrative hearings governed by the Administrative Procedures Act, such as this hearing.

Pursuant to 46 USC § 7703(1)(B) a license, or merchant mariner's document issued by the Secretary of Transportation (*i.e.*, United States Coast Guard by delegation) may be suspended or revoked if the holder acting under the authority of that license or document has committed an act of misconduct. Misconduct has been defined in 46 CFR § 5.27 in relevant part as follows:

> Human behavior, which violates some formal, duly established rule. Such rules are found in, among other places, statutes, regulations, . . . .

The misconduct in this case is alleged to be the result of the Respondent's violation of a drug testing regulation found at 46 CFR § 16.105 defining a refusal to submit to be, that which is set out in 49 CFR § 40.191[2]. A refusal to submit under this regulation includes a Medical Review Officer (MRO) reporting a substituted specimen. A substituted specimen is defined in 49 CFR § 40.201 to mean a urine specimen with creatinine and specific gravity values that are so diminished that they are not consistent with human urine. These values are for creatinine less than or equal to 5 mg/dl, and less than or equal to 1.001 for specific gravity.[3]

## FINDING OF FACT

On February 28, 2001 Respondent submitted a urine specimen in connection with a drug test as sanctioned under the drug testing regulations of the Department of Transportation and the United States Coast Guard. See 49 CFR Part 40 and 46 CFR Part 16.

The specimen was collected at Seattle Occupational Medical Center, Seattle, Washington at 2:58 P.M. PST. The urine specimen provided by Respondent was in a collection cup handed to him from a collection kit, which had been unsealed in his presence. After handing the specimen to the collector, the collector checked the temperature gauge on the cup, which apparently did not register. According to Respondent he then left the collection area and went into an adjoining room soon thereafter returning with a digital thermometer. The temperature was taken, and determined to be within normal range. The urine was then poured into two separate bottles each of which were sealed and Respondent then initialed each seal. He then signed the Federal Custody and Control form certifying that the specimen was not adulterated in any manner and each specimen bottle used was sealed with a tamper-proof seal and done in his presence.

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[2] Effective on August 1, 2000 the Coast Guard amended its drug testing regulation 46 CFR § 16.105] to provide that a refusal to submit to a chemical or drug test is that which is set out in 49 CFR § 40.191. See 66 Fed. Reg. 21502 (April 30, 2001).

[3] This is different than a *diluted* urine specimen which has a creatinine value of less than 20 mg/dl.

The specimen bottles were then placed in a bag, which was sealed and placed in container, which was stored for later retrieval by a courier. A courier then retrieved the container and transported it with the specimen bottles to Quest Diagnostics in San Diego, CA.

Upon arrival at the testing laboratory, the container was unsealed and an accession number was assigned. The specimen was then subjected to preliminary testing or initial screening including that to determine the integrity of the specimen for adulteration or substitution.

The laboratory testing determined the Respondent's urine specimen had a creatinine level of 0.10 and a specific gravity of 1.001. CG Exhibit 4. This creatinine level was less than 5 mg/dl. Based on both the creatinine level and specific gravity level the laboratory determined the urine specimen of Respondent as *substituted.* See CG Exhibit 3 inclusive.

This substituted result was then reported to the MRO (Greystone Health Sciences Corporation, La Mesa, CA) Stephen Oppenheim M.D. This result was also reported to Respondent's employer but as "positive".

Respondent was told of this result. He insisted on a retest. He contacted Northwest Drug Testing Division, Salt Lake City, Utah, who at first refused. Later upon contact from George Ellis of Greystone Health Sciences Corp., Northwest Drug Testing agreed to the retest.[4] The retest confirmed the original results: 0.1 for creatinine and 1.001 for specific gravity. CG Exhibit 4.

Thereafter, Respondent sought another MRO opinion regarding his test results and medical explanations for the results. He was permitted to consult with another recognized MRO, James E. Manning M.D. who after consultation referred him to a Nephrologist, Catherine Thompson, M.D.

Prior to the referral, Dr. Manning had Respondent reproduce the amount of liquid he had to drink in the earlier tests and give an observed urine specimen. The collection was done on April 16, 2001. The specimen was tested and had a resulting creatinine level of 9.3 and a specific gravity of 1.001. The creatinine level was substantially below the 20 mg/dl for a dilute specimen and at the borderline for specific gravity. CG Exhibit 5

Dr. Thompson the Nephrologist specializes in fluid and electrolyte disorders. She obtained urine from Respondent, which had a specific gravity of 1.010 and urine creatinine of 19.[5] The collection and test was done at the Virginia Mason laboratory in

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[4] Mr. Ellis testified that he found this initial refusal to be extremely unusual and troubling. He personally contacted Northwest Drug Testing and arranged for the retest.

[5] Dr. Thompson's evaluation involved a history, physical, blood work, and urinalysis. Respondent was unable to replicate the original 0.1 creatinine level. Such a level suggests the urine is literally pure water. See CG Exhibit 8.inclusive

Seattle, WA. Dr. Thompson reported that there was no medical condition discovered in Respondent, which would account for the creatinine level of 0.1. In her opinion it was physically impossible for urine creatinine of 0.1 mg/dl in Respondent. CG Exhibit 5 inclusive.

In a further effort to demonstrate he could physically reproduce creatinine levels below 5 mg/dl, Respondent arranged to provide urine specimens at a firm called Drug Proof in Seattle, WA. A specimen was collected on August 20, 2001, unobserved, and the creatinine level test results showed 4.3 mg/dl and specific gravity level of 1.003-1.035. The specimen was reported as dilute. CG Exhibit 10. The specimen was not collected according to DOT/USCG regulations and did not comply with SAMHSA drug screen protocols.

Thereafter, on August 28, 2001, Respondent arranged for an additional test, this time it was to be observed and conducted in conformity with DOT/USCG regulations and SAMHSA protocols. The results came back – dilute. CG Exhibit 10. The creatinine level was 8.7 mg/dl and the specific gravity was 1.002.

## CONCLUSIONS OF LAW

Creatinine and specific gravity are two common clinical chemistry parameters, which characterize normal human urine specimen for a variety of purposes. Random urine reference ranges are routinely used to evaluate a donor's urine, especially in drug testing programs. Urine specimens are defined as dilute if the urine concentration is less than 20 mg/dl ***and*** a specific gravity of less than 1.003.[6]

Where a creatinine level is less than 5 mg/dl together with a specific gravity of less than 1.001 then the urine is considered in a drug testing regulatory context to be inconsistent with normal human urine. It is then defined as *substituted*. See 49 CFR § 40.201 Additional Definitions which refers to 49 CFR § 40.209(b).

When a Medical Review Officer (MRO), in the course of verifying test results involving a *substituted* specimen, the MRO follows the same procedures used to verify a positive drug test. In that case the MRO interviews the donor to determine if there is a medically justifiable reason for the substituted result. The donor (or employee) has the burden of proof there is a legitimate medical explanation for the substituted result. 49 CFR § 40.215(e).

The regulations now recognize the following as acceptable evidence supportive of an employee's assertion of legitimate medical explanation:

[6] See Program Document #35, September 28, 1998, *Notice to HHS Certified and Applicant Laboratories Subject: Guidance for Reporting Specimen Validity Test Results*. Division of Workplace Programs, SAMHSA, Dept. Health and Human Services.

(1) Medically valid evidence demonstrating that the employee is capable of physiologically producing urine meeting the creatinine and specific gravity criteria of § 40.209(b). 49 CFR § 40.215(h)(1)

Respondent was confronted by the MRO with a substituted test result. He claimed that he drinks considerable quantities of fluids each day that such consumption must explain that result. He was referred to a Nephrologist who could not confirm that to be the case.

Respondent then undertook to show that he was capable of physiologically producing urine meeting the creatinine and specific gravity criteria for a substituted specimen.

On one ***unobserved*** test he did produce urine with a creatinine level of 4 mg/dl but a specific gravity above 1.003. This does not suffice because both the creatinine and specific gravity criteria of § 40.209(b) are not met. In a later ***observed*** test he was again unable to satisfy the criteria.[7]

Consequently Respondent has failed to meet his burden as required under the applicable regulation.

There is no doubt, however, that the MRO and the Nephrologist have concluded that Respondent is physiologically capable of producing ***dilute*** urine.[8] I agree.

## DECISION

I must conclude that Respondent produced at the initial drug test, urine which was substituted and by regulation is deemed to be the equivalent of a refusal to submit. This refusal to submit constitutes a violation of established regulation and law. It is therefore misconduct. The Coast Guard's complaint is therefore, proven.

Nevertheless, Respondent does have a rather unusual physiological ability to produce substantially dilute urine. Given that, I am concerned that such dilute results in future testing may be misinterpreted and incorrectly reported as substituted.

## SANCTION

I will exercise my discretion and suspend the Respondent's document for a period of eighteen (18) months to commence from March 12, 2001, the date Respondent had been removed from service by his employer. During this suspension period Respondent

[7] Creatinine level of 8.7 mg/dl and the specific gravity was 1.002 CG Exhibit 10.

[8] The observed testing done with the MRO and the Nephrologist demonstrate a substantially dilute urine with creatinine levels of 9 and 8.

is directed to take six (6) ***random and observed*** DOT/CG sanctioned drug tests. No test shall be reported as ***substituted, adulterated or positive,*** and if so, then the Respondent's document will be **revoked.** These tests shall be conducted at the discretion of the Marine Safety Office, Seattle and test results shall be reported to that office for evaluation.

Service of this s Decision upon you serves to notify you of your right to appeal as set forth in 33 CFR Subpart J, §20.1001. (Attachment A)

**IT IS SO ORDERED.**

Dated: December 4, 2001.

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Edwin M. Bladen
Administrative Law Judge