



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Washington, DC

MEDICAL FACTUAL REPORT

June 13, 2017

Nicholas Webster, MD, MPH
Medical Officer

A. ACCIDENT: DCA16MR011

Accident Type: Train did not stop at Hoboken Terminal; impacted and overran bumping post, termination of track, terminal waiting area and stopped against terminal building
Location: Hoboken, New Jersey
Date: September 29, 2016
Time: 8:38 a.m. EDT
Vehicle: New Jersey Transit (NJT) Train (No. 1614) with pushing locomotive and 4 passenger cars

B. GROUP IDENTIFICATION: MEDICAL FACTORS GROUP

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Homer Nelson, MD, MRO
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C. RELEVANT REGULATIONS, PROTOCOLS AND MEDICAL CONDITIONS

Per Federal Railroad Administration (FRA) regulation, Title 49 *Code of Federal Regulations* (CFR) Part 240.121, railroad engineers are required to meet the following criteria:

(b) *Fitness requirement.* In order to be currently certified as a locomotive engineer, except as permitted by paragraph (e) of this section, a person's vision and hearing shall meet or exceed the standards prescribed in this section and appendix F to this part.

Per 49 CFR 242.117, railroad conductors are required to meet the following criteria:

(g) *Fitness requirement.* In order to be currently certified as a conductor, except as permitted by paragraph (j) of this section, a person's vision and hearing shall meet or exceed the standards prescribed in this section and Appendix D to this part.

FRA regulations do not require railroad engineers or conductors to report a medical history, describe their use of medications, or undergo any other physical examination, additional testing or review of their health. In contrast, Federal Motor Carrier Safety Administration (FMCSA) regulations provide, as a qualification to drive a commercial motor vehicle (such as a bus), that “[a] person ha[ve] no established medical history or clinical diagnosis of a respiratory dysfunction likely to interfere with his/her ability to control and drive a commercial motor vehicle safely.”¹ However, NORAC’s operating rules, which NJT Rail Operations follow, require “[e]mployees [to] [immediately] notify the company medical officer of any condition not already on record with the railroad, which could impair their ability to perform their duties.”² Additionally, NJT’s Safety Rules require that “[e]mployees [immediately] notify the company medical officer of any condition not already on record with the railroad, which could impair their ability to perform their duties.” NJT also has a Drug and Alcohol Policy in place requiring the reporting of certain conditions.

NJT Medical Protocols

According to correspondence from the NJT medical department, as of December 2016, its staff of 24 full, part time and contractors provides occupational medicine support to over 7,300 NJT safety sensitive employees including over 1,900 rail safety sensitive employees. NJT also uses the services of six off-site medical offices to perform rail physicals.

According to NJT Medical Services Department physical examinations guidelines, NJT conducts medical examinations on safety sensitive rail personnel in accordance with 49 CFR 240.121, and 242.117. Engineers receive annual examinations while conductors and other safety sensitive personnel undergo triennial exams. In addition to the FRA required vision and hearing tests, examinations include a medical history questionnaire including questions about health care visits, medication use, medical conditions, weight changes, and an obstructive sleep apnea (OSA) screening questionnaire.³ The exam also includes measurement of pulse and blood pressure, an electrocardiogram (for engineers), a urine dip, finger stick (if glucose is present in the urine sample), hemoglobin A1c testing (for diabetics) and a physical examination by a physician.

¹ FMCSA Regulation 49 CFR Subpart E - Physical Qualifications and Examinations PART 391.41 Physical qualifications for drivers. <https://www.ecfr.gov/cgi-bin/text-idx?rgn=div5&node=49:5.1.1.2.34#sp49.5.391.e> Accessed 6/13/2017

² The Northeast Operating Rules Advisory Committee (NORAC) Operating Rules are a set of rules that have been adopted by and govern most of the railroads operating in the Northeast United States.

³ NJ Transit OSA screening form is a tool that helps assess an individual's risk of OSA and includes an Epworth sleepiness scale, a set of 8 subjective questions that assess the extent of a person’s daytime sleepiness. Additionally, the form collects anthropometric measurements.

According to NJT OSA procedure (in place at the time of the accident) for rail safety-sensitive employees and candidates, during the annual physical exam, a NJT physician was required to complete a NJT form entitled “Epworth Sleepiness Scale” which records weight, height, body mass index, and neck circumference, and poses a number of subjective questions to gauge how likely the employee is to doze off or fall asleep during the day. The physicians were provided with the form, as well as the 2006 Tri-Medical Society Task Force screening and referral recommendations (2006 Task Force Recommendations), which provided guidance on determining whether to refer an employee for a sleep study. In interpreting the information on the Epworth Sleepiness Scale, the physicians did not rely only on one factor, but used a combination of discretion and the 2006 recommendations to make that determination.^{4,5} (Attachment 1) The procedures further stated: *“If the employee has no diagnosis of sleep apnea but meets criteria for a possible sleep issues, the physician refers them for further evaluation to their private doctor. The employee is given an allotted time to obtain the requested information from their private physician and to return to Medical Services with the information. If their test results find that there is a diagnosis of a sleep disorder, they are required to provide documentation that their condition is being treated and monitored...”* NJT provided all occupational medicine physicians with department OSA guidelines and provides them with annual re-instruction on procedures. Additionally, examining physicians inside NJT and at off-site locations had the 2006 Tri-Medical Society OSA screening procedures. Off-site offices were trained annually but examining physicians at the off-site medical offices did not have the referral information. Referrals were managed at NJT Medical upon receipt of the physical documentation from the off-site medical office. The OSA protocol included criteria for referral for a sleep evaluation. The protocol included the 2006 Tri-Medical Society Task Force OSA screening and referral recommendations. (see Table 1). According to NJT Medical department response to NTSB questions (Attachment 2), at the time of the accident the determination of need for referral for further OSA evaluation was left to the discretion of the examining physician. At the time of the accident, physicians were responsible for reviewing their own physical examinations and a registered nurse or medical technician was responsible to ensure the documents were complete.

Finally, NJT operates buses, as well as trains and light rail vehicles; regulations governing different modes of transportation treat safety sensitive personnel differently, bus safety sensitive personnel are subject to a FMCSA regulation requiring, as a qualification to drive a commercial motor vehicle, that “[a] person ha[ve] no established medical history or clinical diagnosis of a respiratory dysfunction likely to interfere with his/her ability to control and drive a commercial motor vehicle safely.” In contrast, no FRA regulations applies to rail safety sensitive personnel who meet OSA criteria. Although NJT’s physician could refer rail safety-sensitive personnel to their personal physician for further evaluation, no enforcement mechanism for evaluation and treatment existed through the certification regulations. As a result, NJT could not remove a recalcitrant rail employee from service for medical reasons, based solely on the screening and without medical evidence that the employee had been diagnosed with OSA.

⁴ The NJT Epworth sleepiness scale is a measure of the potential to fall asleep based on subjective reporting, a score of seven or less is considered a normal amount of sleepiness, 8 to 9 is average sleepiness, 10 to 16 excessive sleepiness depending on situation, 16+ indicates excessive sleepiness and recommends the patient to seek medical attention. (Attachment 1)

⁵ Johns MW. Reliability and Factor Analysis of the Epworth Sleepiness Scale, *Sleep*, 15(4):376-381

Table 1. Screening Recommendation for Commercial Drivers* with Possible or Probable Sleep Apnea.⁶

Screening Recommendation for Commercial Drivers With Possible or Probable Sleep Apnea		
Medically Qualified to Drive Commercial Vehicles If Driver Meets Either of the Following	In-Service Evaluation (ISE) Recommended If Driver Falls Into Any One of the Following Five Major Categories (3 mo maximum certification)	Out-of-Service Immediate Evaluation Recommended If Driver Meets Any One of the Following Factors
<ol style="list-style-type: none"> 1. No positive findings or any of the numbered in-service evaluation factors 2. Diagnosis of OSA with CPAP compliance documented 	<ol style="list-style-type: none"> 1. Sleep history suggestive of OSA (snoring, excessive daytime sleepiness, witnessed apneas) 2. Two or more of the following: <ol style="list-style-type: none"> a) BMI ≥ 35 kg/m²; b) Neck circumference greater than 17 inches in men, 16 inches in women; c) Hypertension (new, uncontrolled, or unable to control with less than 2 medications). 3. ESS >10 4. Previously diagnosed sleep disorder; compliance claimed, but no recent medical visits/compliance data available for immediate review (must be reviewed within 3-mo period); if found not to be compliant, should be removed from service (includes surgical treatment) 5. AHI >5 but <30 in a prior sleep study or polysomnogram and no excessive daytime somnolence (ESS <11), no motor vehicle accidents, no hypertension requiring 2 or more agents to control 	<ol style="list-style-type: none"> 1. Observed unexplained excessive daytime sleepiness (sleeping in examination or waiting room) or confessed excessive sleepiness 2. Motor vehicle accident (run off road, at-fault, rear-end collision) likely related to sleep disturbance, unless evaluated for sleep disorder in the interim 3. ESS ≥ 16 or FOSQ <18 4. Previously diagnosed sleep disorder: <ol style="list-style-type: none"> d) Noncompliant (CPAP treatment not tolerated); e) No recent follow up (within recommended time frame); f) Any surgical approach with no objective follow up. 5. AHI >30

AHI indicates apnea-hypopnea index; BMI, body mass index; CPAP, continuous positive airway pressure; ESS, Epworth Sleepiness Scale; FOSQ, Functional Outcomes of Sleep Questionnaire; OSA, obstructive sleep apnea.

* Note, unlike bus drivers, train engineers and other rail safety sensitive employees are not regulated as Commercial Drivers

Obstructive Sleep Apnea

OSA is a chronic disease in which patients experience episodes of airway obstruction while sleeping. During each episode, the person stops breathing for a period of time which causes oxygen levels to drop and carbon dioxide levels to rise. When the buildup of carbon dioxide gets too high, the brain detects it and the person arouses or awakens in order to breathe. The end result is fragmented sleep. Risk factors for OSA include, male gender, age, obesity, hypertension, large neck circumference (greater than 16 inches in women and 17 inches in men), a waist to hip circumference ratio of greater than 1 for men and 0.85 for women, and snoring.^{7,8,9,10,11} A task force created by the American Academy of Sleep Medicine developed a Clinical Guideline for the Evaluation, Management, and Long Term Care of Obstructive Sleep Apnea in Adults which was published in 2009.¹² The task force reached consensus that patients with obesity, congestive heart failure, atrial fibrillation, treatment refractory hypertension, type 2

⁶ Hartenbaum, N et al. Sleep Apnea and Commercial Motor Vehicle Operators. JOEM. Volume 48, Number 9, Supplement September 2006

⁷ Peppard PE, et al. Increased prevalence of sleep-disordered breathing in adults. Am J Epidemiology. 2013;177(9):1006-14.

⁸ Seidell JC. Waist circumference and waist/hip ratio in relation to all-cause mortality, cancer and sleep apnea. Eur J Clin Nutr. 2010;64(1):35-41.

⁹ Young T, et al. Sleep Heart Health Study Research Group. Predictors of sleep-disordered breathing in community-dwelling adults: The Sleep Heart Health Study. Arch Intern Med. 2002;162(8):893-900.

¹⁰ Olson LG, et al. A Community Study of Snoring and Sleep-disordered Breathing Prevalence. Am J Respir Crit Care Med 1995; 152:711-6.

¹¹ Young T, et al. Risk factors for obstructive sleep apnea in adults. JAMA. 2004;291(16):2013-6.

¹² Adult Obstructive Sleep Apnea Task Force of the American Academy of Sleep Medicine. Clinical Guideline for the Evaluation, Management, and Long Term Care of Obstructive Sleep Apnea in Adults. J Clin Sleep Med. 2009;5(3): 263-276.

diabetes, stroke, nocturnal dysrhythmias, pulmonary hypertension, those who were members of high-risk driving populations (such as train engineers, conductors, and commercial truck drivers), and those being evaluated for bariatric surgery were either at increased risk of having OSA, having serious complications of OSA, or having undiagnosed OSA complicate their medical care. Patients with any of these conditions or situations were identified as “high risk,” suggesting increased vigilance for the diagnosis. Of note, persons with OSA have a significantly increased risk of motor vehicle crashes and other occupational injuries.^{13,14,15} Nevertheless, unlike the FMCSA, FRA does not currently regulate in this arena. However, the issue of OSA and the associated risk of motor vehicle crashes and other occupational injuries is the subject of proposed rulemaking. On March 10, 2016, FRA published an advanced notice of proposed rulemaking requesting data and information concerning the prevalence of moderate-to-severe OSA in individuals occupying safety sensitive positions in rail transportation and the potential consequences for rail safety.

D. DETAILS OF INVESTIGATION

Purpose

This investigation was performed to evaluate the train’s crew for any medical conditions, use of medications/illicit drugs, or the presence of any toxins. Additionally, the investigation evaluated the conduct and oversight of NJT occupational medicine evaluations of safety sensitive personnel.

Methods

The crews’ NJT occupational health records, engineer’s personal medical records, FRA postaccident toxicology reports, engineer’s postaccident medical treatment records, and the engineer’s postaccident toxicology testing conducted by the Federal Aviation Administration (FAA) Bioaeronautical Sciences Research Laboratory were reviewed. Additionally, NJT occupational medicine policies and procedures for evaluation of OSA in safety sensitive personnel were reviewed.

Engineer

NJT Medical File

According to annual NJT occupational medical records ranging from 1998 to July 2016, the 48-year-old male engineer’s most recent examination was dated July 7, 2016. No abnormalities were noted on his hearing test and vision testing recorded the engineer’s corrected distant vision as 20/20 in both eyes, 20/25 in right eye and 20/22 left eye.¹⁶ No abnormalities were identified in visual field or color vision testing. The engineer’s height was recorded as 6 feet. Although he reported a history of weight gain, his weight was not recorded. In addition, the NJT OSA screening form was not

¹³ Mulgrew AT, et al. Risk and severity of motor vehicle crashes in patients with obstructive sleep apnea/hypopnea. *Thorax*. 2008; 63(6):536–541.

¹⁴ Lindberg E, et al. Role of snoring and daytime sleepiness in occupational accidents. *Am J Respir Crit Care Med* 2001;164 (11): 2031–2035.

¹⁵ Basoglu OK, Tasbakan MS. Elevated risk of sleepiness-related motor vehicle accidents in patients with obstructive sleep apnea syndrome: a case-control study. *Traffic Inj Prev*. 2014;15(5):470-6.

¹⁶ Per 49 CFR 240.121(c), Each person shall have visual acuity that meets or exceeds the following thresholds: (1) for distant viewing either,

- (i) Distant visual acuity of at least 20/40 (Snellen) in each eye without corrective lenses or
- (ii) Distant visual acuity separately corrected to at least 20/40 (Snellen) with corrective lenses and distant binocular acuity of at least 20/40 (Snellen) in both eyes with or without corrective lenses.

in the records.¹⁷ No significant abnormalities were identified on examination. He was found medically qualified for duty with the restriction to use corrective lenses.

The engineer's previous examination for certification was dated July 30, 2015. At that time, his height was recorded as 6 feet and his weight as 300 pounds. The OSA screening form recorded no history of treatment for sleep apnea, +/- [possible] snoring, and documented his BMI at 40.7 kg/m² or morbidly obese.¹⁸ Although his total Epworth score was two (indicating a normal amount of sleepiness), his neck circumference was not recorded. There is no documentation of any referral of the engineer for further evaluation for possible OSA. The engineer's medical records include the Epworth Sleepiness Scale for years 2010 through 2014. In 2010 and again in 2014, the engineer reported zero chance of dozing in various situations. In 2013, the engineer reported a slight chance of dozing when sitting quietly after lunch without alcohol and moderate/high chance of dozing when lying down to rest in the afternoon when circumstances permit. On that same form, NJT Medical Services handwrote "snoring & uvulectomy referral years ago, history of snoring no gasping". The engineer's total Epworth Score was 3-4 (indicating a normal amount of sleepiness). Under such circumstances, NJT protocol left it within the discretion of the doctor whether to refer the employee for a sleep study. Table 2 summarizes the results of engineer's last 6 years of examinations.

Table 2. Summary of Engineer's NJT – OSA screenings and physical exam findings.

Exam Date	Weight Pounds	Height Feet	BMI	Neck Circumference	Epworth Score Total
July 07, 2016	NR*	6*	NOF	NOF	NOF
July 30, 2015	300	6	40.7	NR	2
July 22, 2014	292	6	39.6	NR	0
July 18, 2013^S	262	6	35.5	17 ¼	3-4
July 25, 2012	265*	6*	NOF	NOF	NOF
July 03, 2011	239*	6*	NOF	NOF	NOF
July 26, 2010*	250*	6*	**	**	0

NR - Not recorded

* - Height and weight as recorded on physical exam form

NOF - No OSA form found.

** - Epworth questionnaire only, height and weight obtained from physical examination form.

^S - A note on the OSA form states "snoring and uvulectomy referral years ago, for snoring no symptoms", Sleep study not requested. During a postaccident interview the engineer confirmed the surgery and stated it was part of a procedure to correct a deviated septum and alleviate head congestion.

¹⁷ Per NJT Memo December 5, 2016 (Attachment 2) - No records of the required July 2016 NJT Sleep apnea screening form were located by NJT.

¹⁸ According to the National Institute of Health a BMI of over 40 kg/m² indicates severe or morbid obesity and increase the risk of Type II diabetes, high blood pressure, cardiovascular disease, and sleep apnea.

Personal Medical Records

According to personal medical records from a nurse practitioner dated January 2015 the engineer was evaluated for an acute upper respiratory infection and had no documented chronic medical concerns. This was a onetime visit for an acute event and there were no other records. His documented weight was 292 pounds, height was 6 feet, and BMI was 39.6. He was not asked about sleep apnea or snoring and did not complain of snoring.

Postaccident Emergency Treatment Records

According to emergency records, the 48-year-old male engineer reported no recollection of the event and was unable to give specifics of the accident or mechanism of injuries. He reported no use of medications and no history of diabetes, high blood pressure, asthma, chronic obstructive pulmonary disease, or heart disease. He complained of pain over the back of his head (occiput). His physical examination recorded that he was alert and awake with no neurologic deficits and no natural disease was found. Imaging studies of head, neck, chest and pelvis did not identify any injuries or natural disease. During his emergency room treatment, he was given oxycodone for pain control at 1015 a.m. His discharge diagnosis was head injury, lower back strain, contusion of left shoulder and elbow.

Postaccident Sleep Study

According to sleep medicine clinic records from October 4, 2016 to October 25, 2016, the patient was evaluated by a board certified pulmonary and sleep medicine physician. The engineer's recorded height was 6 feet, weight was 322 pounds and body mass index was 43.67 kg/m².¹⁹ Additionally, he scored 7 of 24 points on the Epworth sleepiness scale (indicating a normal amount of sleepiness). On October 21, 2016, he underwent a non-invasive polysomnographic evaluation (home sleep study). Testing results included an apnea-hypopnea index (AHI) of 89.6 episodes per hour with an average oxygen saturation during testing of 84%, dropping to as low as 53%.²⁰ The sleep medicine specialist diagnosed severe OSA with severe sleep fragmentation and prescribed continuous positive airway pressure (CPAP) as treatment.²¹

Toxicology

Jersey City Medical Center diagnostic toxicology urine drugs of abuse screen collected at 1321 September 29, 2016 was negative for cocaine, opiates, amphetamines, benzodiazepines, barbiturates, cannabinoids, and PCP (phencyclidine).²²

¹⁹ According to the National Institute of Health a BMI of over 40 kg/m² indicates severe or morbid obesity and increase the risk of Type II diabetes, high blood pressure, cardiovascular disease, and sleep apnea.

²⁰ An apneic episode is the complete absence of airflow through the mouth and nose for at least 10 seconds. A hypopnea episode is when airflow decreases by 50 percent for at least 10 seconds or decreases by 30 percent if there is an associated decrease in the oxygen saturation or an arousal from sleep. The apnea-hypopnea index (AHI) sums the frequency of both types of episodes. An AHI of less than 5 is considered normal. An AHI of 5-15 is mild sleep apnea; 15-30 is moderate sleep apnea and more than 30 events per hour is considered severe sleep apnea.

²¹ CPAP is a treatment for OSA that uses positive air pressure to keep the airways open.

²² Toxicology detection cut-offs are: cocaine 300 ng/mL, opiates 300 ng/mL, amphetamines 1000 ng/mL, benzodiazepines 200 ng/mL, barbiturates 200 ng/mL, cannabinoids, PCP 25 ng/mL (The report does not contain units. Units confirmed by a phone call to the laboratory manager)

Postaccident toxicology testing conducted by the FAA Bioaeronautical Sciences Research Laboratory of blood collected by the New Jersey Transit police did not detect ethanol or tested-for-drugs.²³

FRA Postaccident toxicology testing of blood collected by the Jersey City Hospital conducted by the Quest Diagnostic Forensic Toxicology Laboratory did not detect ethanol. Testing detected oxycodone 599 ng/mL, its active metabolite oxymorphone 512 ng/mL in urine and oxycodone 10.7 ng/mL in blood.²⁴ Although the sample was positive for oxycodone, documentation from Jersey City Hospital showed oxycodone pain relievers had been administered postaccident. As a result, the test was verified as negative for drugs by the medical review office.

Conductor

NJT Medical File

According to occupational health records, the 55-year-old male conductor's most recent medical certification examination was performed on December 23, 2014. His corrected distant vision was recorded as 20/20 both eyes, 20/20 right and 20/20 left, no abnormalities were identified in visual field or color vision testing. The NJT OSA screening form completed during this exam recorded the following; no treatment for sleep apnea, weight 280 pounds, height 70 inches, BMI of 40 kg/m², neck circumference 20.5 inches and an Epworth sleepiness scale of 3. No abnormalities were identified on the physical examination and the conductor was found medically qualified with a restriction to wear corrective lenses. Additionally, there is no documentation of a referral of the conductor for further evaluation for OSA.

Toxicology

FRA postaccident toxicology testing conducted by Quest laboratories did not identify any tested-for-drugs in the urine and no alcohol was detected in the blood.²⁵

Brakeman

NJT Medical File

According to occupational health records, the 62-year-old male brakeman's most recent medical certification examination was performed October 10, 2014. His corrected distant vision was recorded as 20/30 both eyes, 20/40 right and 20/25 left. No abnormalities were identified in visual field or color vision testing. The NJT OSA screening form completed during this exam recorded the following; no history of sleep apnea, questionable snoring, weight 257 pounds, height 70 inches, BMI of 36.3 kg/m², neck circumference was not recorded and the Epworth sleepiness scale was 1. The exam documented chronic stable neurological and ocular issues and found the brakeman medically qualified with the following restrictions: meets old visual acuity

²³ Specimens are analyzed using immunoassay, chromatography, GC/MS, HPLC/MS, or GC/FTIR. Concentrations (ug/mL) at or above those in () can be determined for, but not limited to, the following drugs: amphetamines (0.010), opiates (0.010), marijuana (0.001), cocaine (0.020), phencyclidine (0.002), benzodiazepines (0.030), barbiturates (0.060), antidepressants (0.100), and antihistamines (0.020). Drugs and/or their metabolites, that are not impairing or abused, may be reported from the initial tests. See the CAMI Drug Information Web Site for additional information (<http://jag.cami.jccbi.gov/toxicology/>)

²⁴ Smith HS, Opioid Metabolism. Mayo Clin Proc. July 2009;84(7):613-624

²⁵ Quest laboratory tested urine specimens for amphetamines, barbiturates, benzodiazepines, cannabinoids, cocaine, MDMA/MDA, methadone, opiates/opioids, phencyclidine, tramadol, brompheniramine, chlorpheniramine, diphenhydramine, doxylamine, and pheniramine. Blood was tested for alcohol.

standard, may not conduct. Additionally, there is no documentation of a referral of the brakeman for further evaluation for OSA.

Toxicology

FRA postaccident toxicology testing conducted by Quest laboratories did not identify any tested-for-drugs in the urine or blood.²⁶ No alcohol was detected in the blood.

E. NJ Transit Actions concerning OSA Screening Following the Accident

According to correspondence from the NJT medical department, following the accident all OSA referrals are now managed by NJT Medical and require same-day return of all physical documentation to NJT for any rail employee seen at an off-site medical office. (Attachment 2)

Additionally, NJT has implemented a program to ensure OSA screening forms are completed, centrally reviewed, and safety sensitive employees meeting referral criteria are removed from service until appropriately tested and if testing identifies OSA, successfully treated.

This new Rail OSA procedure, including temporary removal from service, was implemented on October 1, 2016. Union employees affected by this new procedure objected and the union filed a formal challenge. In the intervening months, NJT drafted a new Policy for Detection and Treatment of OSA, shared that policy with the impacted unions, and discussed with those unions acceptable terms upon which union employees could be removed from service pending completion of a sleep study and treatment, if necessary. NJT's Executive Director signed the new corporate-wide policy (CWP 3.34 Obstructive Sleep Apnea Policy-Rail Operations) on April 20, 2017. (Attachment 3) On May 1, 2017, employees were notified that the policy applies to all NJT Rail Operations FRA covered employees and FMCSA safety sensitive employees and contractors.

²⁶ Quest laboratory tested urine specimens for amphetamines, barbiturates, benzodiazepines, cannabinoids, cocaine, MDMA/MDA, methadone, opiates/opioids, phencyclidine, tramadol, brompheniramine, chlorpheniramine, diphenhydramine, doxylamine, and pheniramine the urine. The urine was identified as dilute with creatinine of 17.8 mg/dl and specific gravity of 1.0025 (per DOT regulations § 40.93 a specimen is considered dilute when the creatinine greater than or equal to 2mg/dL but less than 20 mg/dL and the specific gravity is greater than 1.0020 but less than 1.0030) so testing of blood was performed. Blood was tested for amphetamines, barbiturates, benzodiazepines, cannabinoids, cocaine, MDMA/MDA, methamphetamine, methadone, opiates/opioids, phencyclidine, tramadol, brompheniramine, chlorpheniramine, diphenhydramine, doxylamine, and pheniramine and alcohol.

F. SUMMARY OF FINDINGS

The 48-year-old male engineer had no documented acute or chronic medical conditions but was found to be morbidly obese with a postaccident weight of 322 pounds, a BMI of 43.67 kg/m², and a greater than 90-pound weight gain in past five years. The engineer's most recent required OSA screening form was not located. Additionally, his weight was not recorded on his most recent occupational medical examination. Although he met referral criteria in the 2006 Task Force Recommendations, NJT protocol at the time left it within the discretion of the doctor whether to refer the employee for a sleep study and there was no evidence that he was ever referred. Finally, postaccident polysomnography found he had severe OSA with an AHI of 89.6 episodes per hour.

Review of the 55-year-old male conductor's and 62-year-old male brakeman's occupational records found that they were both medically certified for the safety sensitive positions they held. The conductor had BMI of 40 kg/m² and neck circumference 20.5 inches while the brakeman had BMI of 36.3 kg/m² but his most recent neck circumference was not recorded. While both employees met referral criteria in the 2006 Task Force Recommendations, NJT protocol at the time left it within the discretion of the doctor whether to refer the employee for a sleep study. Neither employees' records contained documentation that they were referred for further sleep apnea testing.

Review of NJT physical exam requirements revealed guidance that the physician examining safety sensitive personnel including engineers and conductors shall complete an OSA screening during periodic examinations. Additionally, the OSA screening form guidelines had specific referral guidance for referral for additional OSA testing. At the time of the accident, referral for additional testing was based on a combination of physician discretion and the 2006 Tri-Medical Society Task Force screening and referral recommendations. Since the accident, NJT has started a program to ensure OSA screening forms are completed, centrally reviewed, and safety sensitive employees meeting referral criteria are removed from service until appropriately tested and successfully treated.

Attachment 1 - Medical Factual Report - DCA16MR011 - Hoboken, NJ

Obstructive Sleep Apnea Procedure for Rail safety-sensitive employees and candidates

NJ TRANSIT Medical Services Department

NJ TRANSIT Medical Services Department conducts screenings to identify possible sleep disorders for all current employees and new hires. Any safety-sensitive employee/candidate who meets the criteria and/or has a diagnosis of a sleep disorder is required to provide Medical Services with documentation verifying that their sleep disorder has been treated and stabilized before they can be medically approved.

Employees required to obtain periodic physical examinations for their position are given a sleep assessment as part of their physical. If a sleep disorder is identified as a safety concern, the employee will be referred for further evaluation (i.e. to a sleep specialist or their primary care physician).

NJ TRANSIT Medical Services has developed an Obstructive Sleep Apnea Monitoring Program for identified employees. Employees who have been recommended to undergo a sleep study will be referred to the Medical Services Department. NJ TRANSIT (NJT) medical staff can facilitate the securing of an expedited appointment at a Certified Sleep Center for testing and treatment.

The specific steps the Medical Department follows for safety-sensitive employees and pre-employment candidates are:

1. NJT Physician examines employee/candidate to determine medical fitness (usually during physical exam-Book of Rules, Commercial Driver's License, periodic, etc.).
2. NJT Physician completes Epworth sleepiness scale and obtains weight, height, body mass index, blood pressure and neck circumference during physical exam.
 - A. If the **employee has an existing diagnosis and is not being treated**, the NJT Physician refers them for further evaluation to their private doctor. If their test results determine that there is a diagnosis of a sleep disorder, they are required to provide documentation that their condition is being treated and monitored. Documentation may include copies of their Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) and a letter from their treating Sleep Specialist stating that they are in compliance with treatment. Safety-sensitive employees are then monitored annually for compliance.
 - a. If they are non-compliant, they will be referred to Medical Services for further evaluation of their fitness for duty.
 - b. If their test results determine that there is no diagnosis of a sleep disorder, they are medically approved.
 - B. If the **employee has an existing diagnosis and is being treated**, they are required to provide documentation that their condition is being treated and monitored. Documentation may include copies of their Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) and a letter from their treating Sleep Specialist stating that they are in compliance with treatment. Safety-sensitive employees are then monitored annually for compliance.

- a. If they are non-compliant, they will be referred to Medical Services for further evaluation of their fitness for duty.
- C. If the **employee has no current diagnosis, but meets the criteria** for a possible sleep issue, the Physician refers them for further evaluation to their private doctor. The employee is given an allotted time to obtain the requested information from their private physician and to return to Medical Services with the information. If their test results determine that there is a diagnosis of a sleep disorder, they are required to provide documentation that their condition is being treated and monitored. Documentation may include copies of their Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) and a letter from their treating Sleep Specialist stating that they are in compliance with treatment. Safety-sensitive employees are then monitored annually for compliance.
- a. If their test results determine that there is no diagnosis of a sleep disorder, they are medically approved.
- D. If the **employee has no current diagnosis and does not meet the criteria** for a possible sleep issue, they are medically approved for the position.
- E. If a **pre-employment candidate has an existing diagnosis and is not being treated**, the Physician refers them for further evaluation to their private doctor. They will not be medically approved until they provide documentation that their condition is being treated and monitored. Documentation may include copies of their Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) and a letter from their treating Sleep Specialist stating that they are in compliance with treatment. They are then monitored annually for compliance.
- F. If a **pre-employment candidate has an existing diagnosis and is being treated**, they are required to provide documentation that their condition is being treated and monitored. They will not be medically approved until they provide documentation that their condition is being treated and monitored. Documentation may include copies of their Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) and a letter from their treating Sleep Specialist stating that they are in compliance with treatment. They are then monitored annually for compliance.
- G. If a **pre-employment candidate has no current diagnosis, but meets the criteria** for a possible sleep issue, the Physician refers them for further evaluation to their private doctor. If their test results determine that there is a diagnosis of a sleep disorder, they will not be medically approved until they provide documentation that their condition is being treated and monitored. Documentation may include copies of their Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) and a letter from their treating Sleep Specialist stating that they are in compliance with treatment. They are then monitored annually for compliance.
- H. If a **pre-employment candidate has no current diagnosis and does not meet the criteria** for a possible sleep issue, they are medically approved for the position.

3. Depending upon their position and work environment, if a **non-safety-sensitive employee** has a physical exam and meets the criteria for a sleep disorder, they are advised to see a sleep specialist and may be told to return to Medical Services for further evaluation.
4. **Any employee** may also be referred to Medical Services for a *fitness for duty exam* due to a possible sleep issue.

New Jersey Transit
MEDICAL SERVICES DEPARTMENT

[] Maplewood [] Hoboken [] Camden [] Egg Harbor

TO BE COMPLETED BY PHYSICIAN FOR ALL
SAFETY-SENSITIVE EMPLOYEES

Date of Service: _____

Employee Name: _____ Employee Number _____

Weight _____ Height _____ BMI _____ Neck circumference _____

Epworth Sleepiness Scale

How likely are you to doze off or fall asleep in the following situations, in contrast to just feeling tired? This questionnaire refers to your chance of falling asleep, according to your usual way of life, for about the last week or two. Even if you have not done some of these things recently, try to estimate how they would have affected you during the last two weeks.

Use the following scale to choose the most appropriate number for each situation:

Scale:

- 0 = No chance of dozing
- 1 = Slight chance of dozing
- 2 = Moderate chance of dozing
- 3 = High chance of dozing

Situation	Chance of Dozing			
Sitting and reading	0	1	2	3
Watching TV	0	1	2	3
Sitting inactive in a public place (i.e. in a theater or a meeting)	0	1	2	3
As a passenger in a car for an hour without a break	0	1	2	3
Lying down to rest in the afternoon when circumstances permit	0	1	2	3
Sitting and talking to someone	0	1	2	3
Sitting quietly after lunch without alcohol	0	1	2	3
In a car, while stopped for a few minutes in traffic	0	1	2	3
Total Epworth Score				

Scoring:

- 7 or less = You have a normal amount of sleepiness
- 8 to 9 = You have an average amount of sleepiness
- 10 to 15 = You may be excessively sleepy depending on the situation and you may want to seek medical attention
- 16 + up = You are excessively sleepy and should seek medical attention

Doctor's Signature: _____

Memorandum

RAIL

NJ TRANSIT

HUMAN RESOURCES
MEDICAL SERVICES

To: «First_Name» «Last_Name»
Employee Name

 «Emp_»
Employee Number

 «Work_Location»
Work Location

From: _____

 Superintendent

Date: ██████████

Subject: Medical monitoring requirement

Please be advised that NJ Transit's Medical Department has notified Supervision that you have failed to provide them with your required update pursuant to the Medical Department's medical monitoring program. You are unavailable for work due to being non-compliant with medical requirements and appropriate action will be taken.

You MUST do the following:

1. Immediately contact your personal physician to schedule the necessary appointment to satisfy this requirement.
2. Advise your supervisor within 24 hours of the appointment date.
3. Please contact ██████████, RN, at ██████████ if you feel that this letter was sent to you in error.

Failure to take the steps above may jeopardize your employment with NJ Transit Rail Operations.

If you have any questions, please contact me at ██████████

Chris Christie, Governor
Kim Guadagno, Lieutenant Governor
Richard T. Hammer, Acting Commissioner
Dennis J. Martin, Interim Executive Director

RAIL

NJTRANSIT
MEDICAL SERVICES

PLEASE PROVIDE THIS LETTER TO YOUR PHYSICIAN

TO WHOM IT MAY CONCERN:

Re: Yearly compliance with Obstructive Sleep Apnea Monitoring Program for:

«First_Name» «Last_Name»

The above named is referred for further supplemental clinical examination and evaluation of Obstructive Sleep Apnea. Where indicated, appropriate certification attesting to the satisfactory correction or control of any existing abnormality is requested. It is understood that this supplemental medical information is to be obtained at the applicant's own initiative and expense.

Please provide the following:

Existing Diagnosis:

Must bring in **YEARLY** copies of:

1. Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) or CPAP titration report within normal range.
2. Letter from physician stating that employee is compliant with CPAP use AT LEAST 4 HOURS and that he/she is able to drive a commercial vehicle (if applicable).
3. Objective evidence of CPAP compliance, including a two week compliance report (if applicable).

Thank you for your cooperation. If you have any questions, please contact me at [REDACTED].

Sincerely,

[REDACTED]
Manager, Clinical Services

REMINDER: This information is due to the Medical Department on «Due_Date»

Please have your Physician fax it to me at [REDACTED].

Chris Christie, Governor
Kim Guadagno, Lieutenant Governor
Richard T. Hammer, Acting Commissioner
Dennis J. Martin, Interim Executive Director

RAIL

NJTRANSIT
MEDICAL SERVICES

[REDACTED], RN
NJ Transit Medical Services Department
180 Boyden Avenue
Maplewood, NJ 07040

[REDACTED]

[REDACTED]

Re: Yearly compliance with Obstructive Sleep Apnea Monitoring Program

Dear «First_Name» «Last_Name»,

Enclosed is a request for information for you to submit to your physician regarding your annual compliance with the Obstructive Sleep Apnea Monitoring Program.

Please mail, fax or bring the response from your physician to NJ Transit's Medical Services Department in Maplewood, NJ at the above address and to my attention.

This information is due by «Due_Date»

Please call me at the above phone number if you require any assistance.

Thank you.

Sincerely,
[REDACTED] RN
Manager, Clinical Services

Attachment

Chris Christie, Governor
Kim Guadagno, Lieutenant Governor
Richard T. Hammer, Acting Commissioner
Dennis J. Martin, Interim Executive Director

RAIL

NJTRANSIT
MEDICAL SERVICES

PLEASE PROVIDE THIS LETTER TO YOUR PHYSICIAN

TO WHOM IT MAY CONCERN:

Regarding: «**First_Name**» «**Last_Name**»

The above-named is referred for further supplemental clinical examination and evaluation of Obstructive Sleep Apnea. Where indicated, appropriate certification attesting to the satisfactory correction or control of any existing abnormality is requested. It is understood that this supplemental medical information is to be obtained at the applicant's own initiative and expense.

Please provide the following requested information to assist in returning him/her to work:

Newly diagnosed/suspected:

In order to drive, employee must bring in **COPIES** of:

1. Polysomnography report
2. Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) within normal range – **OR** – Polysomnography done with CPAP titration showing resolution of symptoms while using CPAP
3. Letter from personal physician stating that employee has been treated with CPAP for at least 2 weeks
 - a. That the employee is compliant with CPAP use for **AT LEAST 4 HOURS** per sleep cycle
 - b. That the employee does not have excessive daytime somnolence (EDS)
 - c. That the employee is able to perform safety-sensitive duties according to their job description (attached).

Existing Diagnosis:

Must bring in **YEARLY** copies of:

1. Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) or CPAP titration report within normal range
2. Letter from physician stating that employee is compliant with CPAP use **AT LEAST 4 HOURS** and that he/she is able to drive a commercial vehicle
3. Objective evidence of CPAP compliance (if applicable)

If you have any questions, please contact me at [REDACTED].

Thank you for your cooperation.

[REDACTED] RN
Manager, Clinical Services

NJ TRANSIT
350 Newton Avenue
Camden, New Jersey 08103-1007

MEDICAL DEPARTMENT

Phone [REDACTED]

Date:

Re:

To Whom It May Concern:

The above named employee is referred for further supplemental clinical examination and evaluation of Obstructive Sleep Apnea. Where indicated, appropriate certification attesting to the satisfactory correction or control of any existing abnormality is requested. It is understood that this supplemental medical information is to be obtained at the employee's own initiative and expense. Attached are the Guidelines for DOT drivers with Obstructive Sleep Apnea (OSA).

Please provide the following:

Newly diagnosed/suspected: _____

In order to drive employee must bring in copies of:

1. Polysomnography report
2. Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) within normal range
OR
Polysomnography done with CPAP titration showing resolution of symptoms while using CPAP
3. Letter from personal physician stating that employee has been treated with CPAP for at least 2 weeks,
 - b. That the employee is compliant with CPAP use for **AT LEAST 4 HOURS** per sleep cycle.
 - c. That the employee does not have excessive daytime somnolence (EDS)
 - d. And that the employee is able to drive a commercial vehicle.

Existing Diagnosis: _____

Must bring in **YEARLY** copies of:

1. Mean Wakefulness Test (MWT) or Mean sleep latency test (MSLT) or CPAP titration report within normal range
2. Letter from physician stating that employee is compliant with CPAP use (**AT LEAST 4 HOURS**) and that he/she is able to drive a commercial vehicle.
3. Objective evidence of CPAP compliance (if applicable)

Thank you for your cooperation.

Sincerely,

Medical Services

The American Thoracic Society (ATS) [38] discussed the importance of OSA's role in vehicle accidents and suggests use of a higher level of caution in commercial drivers. The ATS defined a high-risk individual as one who has excessive daytime sleepiness as well as a prior motor vehicle accident.

Some states, such as California and Texas, address sleep apnea in their medical criteria for drivers [21].

A task force composed of members from the American College of Occupational and Environmental Medicine (ACOEM), American College of Chest Physicians (ACCP), and the National Sleep Foundation (NSF) prepared an extensive review of the commercial driver with OSA including recommendations on screening, diagnosis, treatment, and follow-up [25]. (See Tables 5-1 and 5-2.) Talmage and colleagues [7]

**Table 5-1. Tri-Medical Society Task Force Recommendations—
Screening Recommendations for Commercial Drivers with
Possible or Probable Sleep Apnea**

Medically qualified to drive commercial vehicles if either of the following:	In-Service Evaluation recommended (ISE) if driver falls into one of the following five major categories (3 months max. certification):	Out-of-Service Immediate Evaluation (OSE) recommended if driver meets any one of the following factors:
1. No positive findings or only one of the numbered in-service evaluation factors 2. Diagnosis of OSA with CPAP compliance documented	1. Sleep history suggestive (snoring, excessive daytime sleepiness, witnessed apneas) 2. Two or more of the following: a. BMI ≥ 35 , b. Neck circumference greater than 17 inches in men, 16 inches in women c. Hypertension (new, uncontrolled, or unable to control with less than two medications)	1. Observed unexplained excessive daytime sleepiness (sleeping in exam or waiting room); confessed excessive sleepiness 2. Motor vehicle accident (run off road, at fault rear-end collision) likely related to sleep disturbance unless evaluated for sleep disorder in the interim

(continues)

Table 5-1. Continued

Medically qualified to drive commercial vehicles if either of the following:	In-Service Evaluation recommended (ISE) if driver falls into one of the following five major categories (3 months max. certification):	Out-of-Service Immediate Evaluation (OSE) recommended if driver meets any one of the following factors:
2. Diagnosis of OSA with CPAP compliance documented (continued)	3. ESS greater than > 10 4. Previously diagnosed sleep disorder: Compliance claimed but no recent medical visits/compliance data available for review (must be reviewed within 3-month period). If not compliant, should be removed from service. (Includes surgical treatment)	3. ESS > 16 or FOSQ < 18 4. Previously diagnosed sleep disorder: a. Noncompliant (CPAP treatment not tolerated) b. No recent follow-up c. Any surgical approach with no objective follow-up 5. AHI > 30
	5. AHI > 5 but < 30 in a prior sleep study or polysomnogram and no excessive daytime somnolence (ESS < 11), no motor vehicle accidents, no hypertension requiring 2 or more agents to control	

Source: Adapted from Hatanbaur et al. (2006) with permission of ACOEM.

found that these criteria had a high positive predictive value in determining which drivers should undergo evaluation for OSA. Of the 134 drivers who met the screening criteria and had polysomnograms, 98% were diagnosed with OSA. In another study by Parks and colleagues [39], 20 out of 20 drivers who meet the criteria for further evaluation were diagnosed with OSA. In order for their criteria to be acceptable, the Task Force participants aimed for the "tip of the iceberg" hoping to identify those at highest risk of having OSA and to have them evaluated. They recognized that the screening criteria had a low sensitivity,

5-2. Tri-Medical Society Task Force—Recommendations for the Evaluation for Fitness for Duty for Commercial Drivers with Possible or Probable Obstructive Sleep Apnea

Category	Recommendation
Diagnosis	<ol style="list-style-type: none"> 1. Diagnosis should be determined by a physician and confirmed by polysomnography, preferably in an accredited sleep laboratory or by a certified sleep specialist. 2. A full-night study should be done unless a split-night study is indicated (severe OSA identified after at least 2 hours of sleep).
Treatment	<ol style="list-style-type: none"> 1. First-line treatment for commercial drivers with OSA should be delivered by positive airway pressure (CPAP, BPAP). 2. All commercial drivers on PAP must use a machine that is able to measure time on pressure. 3. A minimum acceptable average use of CPAP is 4 hours within a 24-hour period, but drivers should be advised that longer treatment would be more beneficial. 4. Treatment should be started as soon as possible but within 2 weeks of the sleep study. 5. Follow-up by a sleep specialist should be done after between 2 and 4 weeks of treatment.
Return to work after treatment Treatment with PAP	<ol style="list-style-type: none"> 1. After about 1 week of treatment, contact between the patient and personnel from either the DMB supplier or sleep specialist. 2. AHI < 5 documented with CPAP at initial titration or after surgery or with use of oral appliance. AHI < 10 depending on clinical findings. 3. Query driver on fit, compliance, and remind to bring card (if used) or machine to next visit. 4. At a minimum of 2 weeks but within 4 weeks, the driver should be reevaluated by the sleep specialist where compliance and blood pressure are assessed. 5. If compliant and blood pressure are controlled, the driver can return to work but should be certified for no longer than 3 months.

(continues)

Table 5-2. Continued

Category	Recommendation
<i>Return to work after treatment with Oral Appliances</i>	<ol style="list-style-type: none"> 1. Oral appliance should only be used as primary therapy if initial AHI < 30. 2. Prior to returning to service, must have follow-up sleep study demonstrating ideally AHI < 5 but < 10 while wearing oral appliance. 3. All reported symptoms of sleepiness must be resolved and blood pressure must be controlled.
<i>Return to work after treatment with surgery or weight loss</i>	<ol style="list-style-type: none"> 1. Follow-up sleep study, AHI ideally < 5 but < 10 is required to document efficacy.
<i>Follow-up</i>	<ol style="list-style-type: none"> 1. Drivers with OSA should be certified annually. 2. Annual evaluation by sleep specialist. 3. At least annual assessment of compliance and documentation of compliance provided to the commercial driver medical examiner for review.

Source: Adapted from Hartenbaum et al. (2006) with permission of ACOEM.

which means that there are many who also had OSA who would not meet the criteria to undergo additional evaluation.

In 2008 a medical expert panel on OSA made several recommendations [40]. They recommended drivers who meet any of the following conditions should be disqualified:

- EDS or a crash resulting from falling asleep
- AHI > 20 until compliant with PAP
- Surgery for treatment of OSA until a 3-month post-surgical evaluation has demonstrated effectiveness or PAP treatment has been shown to be effective
- Non-compliant with treatment

They further recommended that a driver with a BMI of > 33 be conditionally certified for 1 month pending a sleep study. If the driver was diagnosed with OSA, he could be certified for 1 month and then if shown to be compliant, certified for 3 months. If compliance is maintained, the driver could be qualified annually. Compliance was defined as at least 4 hours of use, 70% of evenings, and drivers would be required to use machines that could measure compliance.

While the MEP recognized that polysomnography was the ideal method to assess OSA, given the large numbers of drivers that would require screening, they felt that certain portable models would be acceptable. These include objective recording devices validated against PSG that include at least 5 hours of measurement of oxygen saturation, nasal pressure, and sleep/wake time.

CPAP was identified as the best treatment. Dental appliances were not considered an acceptable treatment for commercial drivers as compliance could not be monitored. Several surgical treatments were thought to be acceptable. Those who have undergone bariatric surgery could be certified if they are:

- Compliant with CPAP, or
- 6 months post-operative, and
- Cleared by treating clinician, and
- Sleep exam indicates that AHI ≤ 10, and are
- No longer excessively sleepy.

These individuals should have a repeat sleep study within 2 years if they are not on CPAP. They would also need re-evaluation if they regain more than 5 percent of their weight loss or their symptoms of OSA recur.

Attachment 2 - Medical Factual Report - DCA16MR011 - Hoboken, NJ

Chris Christie, Governor
Kim Guadagno, Lieutenant Governor
Richard T. Hammer, Commissioner
Steven H. Santoro, Executive Director

NJ TRANSIT
180 Boyden Avenue
Maplewood, NJ 07040-2494

Response to NTSB Regarding NJ TRANSIT Medical Department's Sleep Apnea Protocols

1. Please provide a general overview of the organization of NJT medical, including staff, number of offices, and the general processes for occupational exams for safety sensitive and non-safety sensitive employees.

NJ TRANSIT's Medical Department has four locations in New Jersey: Maplewood and Camden offices are open Monday-Friday five days per week from 8AM to 4 PM; the Hoboken office is open two days per week on Tuesday and Thursday 7AM to 3PM; and the Egg Harbor Township office is open one day per week on Friday from 8AM -3PM. Copies of our organization chart and processes for occupational exams for safety-sensitive and non-safety sensitive employees are attached.

a. Additionally, can you approximat the annual number of NJT employees who receive care by NJT medical, how many of these fall into the safety-sensitive positions?

We care for 10,828 employees annually. There are 7,320 safety-sensitive employees at NJT, including 1,933 Rail safety-sensitive employees. Attached please find a document labeled Occupational Codes for NJT Drug Testing outlining titles deemed safety-sensitive.

b. How many physicians and health care providers perform NJT perform examinations for safety-sensitive employees? There are 3 New Jersey TRANSIT physicians. Dr. [REDACTED] is full-time. Dr. [REDACTED] and Dr. [REDACTED] are part-time, working 2 and 3 days per week respectively.

How many NJT medical personnel are full time employees and how many are contractors? There are 24 full time employees. In addition to the two physicians noted above, there are 2 other part-time employees, a Medical Technician and a Registered Nurse, for a total of 4 part-time employees.

In accordance with union contracts, we also utilize the services of six off-site medical offices. These offices perform Rail Physicals *only*. Employees have the option to go there for their physicals instead of the Medical Department. They are:

1. Affiliated Physicians – located in New York
2. Primary Care Medical Group (Medical & Surgical Associates) – located in Harrison, NJ

3. Urgent Care Now (formerly Occupational Health South) – located in Manahawkin, Lanoka Harbor and Toms River, NJ
4. Robert Wood Johnson – located in Hamilton, NJ
5. Shore Occupational Medicine – located in Ocean, NJ
6. Urgent Care Medical Associates – located in Dover, NJ

When an employee opts to use one of the off-site medical offices for their annual physical examination, the off-site medical office is required to follow NJT's process and complete NJT's forms. The outside medical office sends the required documents in to the RN who trains, oversees and manages the outside clinics. NJT's Medical Department reviews the documentation usually the same day that the examination is performed. If there is a reason to do so, the NJT Medical Department takes the employee out of service.

Does NJT provide all physicians who conduct examinations for NJT the Medical Department physical exam requirements / guidelines and the Obstructive Sleep Apnea Procedure for Rail safety-sensitive employees and candidate guidelines?

Yes. They are also provided with annual re-instruction on our procedures. A copy of the procedure is attached.

I have reviewed the attached NJT physical exam requirements and am unable to locate the specific guidance concerning how often engineers are required to undergo periodic physical exams.

a. I noticed page 2 of 25 describes conductor physical exams but I cannot locate a similar page for engineers (see page 14 of 24), is this copy missing some pages?

b. If it is could I get the version that was current at the time of the accident?

Attached, please find 3 pages labeled Annual Locomotive Engineer Physicals. Per the NORAC operating rules, all Engineers must have an annual physical.

c. Was this version current at the time of the accident? Yes.

4. The attached NJT OSA Procedure for Rail safety-sensitive employees and candidates contains an attachment - the 2006 Tri-Medical Society Task Force OSA screening and referral recommendations.

a. Is this referral information provided to all examining physicians? All examining physicians inside NJ TRANSIT and at off-site locations have the 2006 Tri-Medical Society OSA screening procedures. Off-site offices are trained annually. All examining physicians at the off-site medical offices do not have the referral information. Referrals are managed at NJ TRANSIT Medical upon receipt of the physical documentation from the off-site medical office. This process has been tightened post-accident; requiring same-day return of all physical documentation to NJ TRANSIT for any rail employee seen at an off-site medical office. All

employees referred for a sleep study are given this information to provide to their physician by NJ TRANSIT Medical.

b. Is there guidance that physicians must follow the screening recommendations or is it left to physician discretion? Yes, there is guidance. NJT's Physical Examinations manual requires physicians to utilize the Epworth Sleepiness Scale to screen for sleep disorders. The 2006 Tri-Medical Society Task Force screening and referral recommendations provide guidance on utilizing the screening criteria to determine whether the employee should be referred for a sleep study. With respect to the screening criteria themselves, the physicians do not rely only on one factor, but use a combination of discretion and this 2006 guidance.

c. If there are instructions or guidelines regarding completion of the OSA screen and appropriate disposition of safety-sensitive employees other than those attached, please send me a copy. Yes, our procedure and packet is attached.

5. The engineer's medical records did not include an OSA screen form for the July 7, 2016 examination.

a. When I was on site, the screening form could not be located, was the form ever located?
No.

b. If it was located, please have a copy scanned and sent to me. It was not located.

c. If the OSA form cannot be located, please have someone from NJT send me a memorandum for the record that the OSA screen form for the July 7, 2016 examination was not located. Attached dated December 5, 2016 from [REDACTED].

6. Is there a review process in place to ensure physicians/physical examinations follow NJT procedures and all required documents are complete, in the record, and appropriate actions are in work or complete? Each Physician is responsible for reviewing their own physical exam for completeness at the time of the exam. The Physician who performed the physical exam on Engineer [REDACTED] had only worked at NJ Transit for three days. The Physician had thirty years of experience and was Board Certified in Occupational and Environmental Medicine, as well as being certified as a Medical Review Officer. He received training when he first started with NJT and was provided with copies of the relevant policies/forms before he began performing physicals. He resigned after five weeks with our agency.

Off-site Rail physicals are reviewed by our medical staff when they are returned to our main Medical office. The off-site medical offices are required to complete all forms. If documentation is incomplete or unclear, the NJ TRANSIT RN in charge of clinics calls the offsite medical office to follow up. Additionally, we have initiated a rail chart audit in our main Medical office to ensure completion of the Epworth Sleepiness Scale.

a. Was the program in place prior to the accident? The Physician review process has always been in place however, the non-physician rail chart audit process has recently been initiated.

Since 2014, if a safety-sensitive employee has an existing diagnosis of OSA and cannot provide proof of compliance at their annual physical, NJ TRANSIT removes the employee from service until they provide satisfactory compliance documentation to our NJ TRANSIT physician.

If an employee is diagnosed with OSA, we monitor their treatment compliance on an annual basis. We currently have 82 employees who participate in our OSA compliance program.

Since October 1, 2016, NJ TRANSIT has taken an interim measure and also takes any safety-sensitive employee out-of-service when the employee is determined to meet the screening criteria during their annual physical. They are not medically cleared to return to service until they complete a sleep study and, if diagnosed with OSA, they must provide documentation verifying that their sleep disorder had been treated and they are in compliance with their treatment plan.

NJ TRANSIT has screened for OSA since 2005. In fact, when APTA's Commuter Rail Safety Management Program performed an audit in 2012, they commended NJ TRANSIT for its continuing efforts to improve system safety. They specifically commended us for using the Epworth Sleepiness Scale to screen for OSA. They recognized that we had expanded our program to include partnerships with certified sleep centers as a means to expedite the assessment and corrective action process for employees. They described our program as an "Industry Leading Effective Practice."

Off-site Rail physicals are reviewed by our medical staff when they are returned to our main Maplewood facility. The off-site medical offices are required to complete all forms. If documentation is incomplete or unclear, the RN in charge of clinics calls the offsite medical office to follow up. Additionally, we have initiated a Rail chart audit in our Maplewood facility for completion of the Epworth Sleepiness Scale. A copy of the chart audit checklist is attached.

ATTACHMENTS

1. Organizational chart of Medical Department
2. NJ Transit Medical Services Department Exam Process Flow Sheets
3. Occupational Codes for NJT Drug testing
4. Obstructive Sleep Apnea Procedure for Rail Safety-Sensitive Employees and Candidates (Locomotive Engineers and Conductors)
5. Annual Locomotive Engineer Physical Requirements from NJT Medical Dept.
6. NJT Book of Rules showing NORAC Operating Rules
7. Memorandum from [REDACTED] regarding Engineer's Epworth Sleepiness Scale

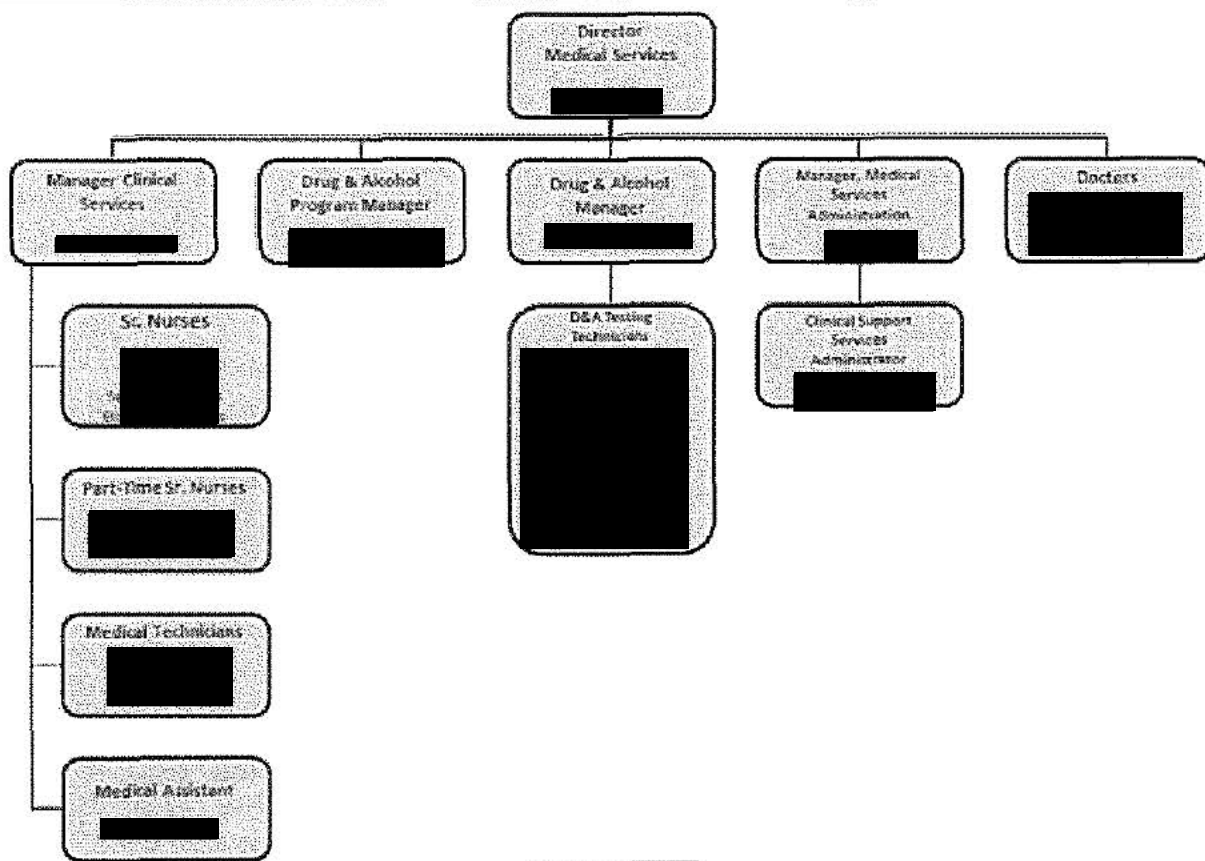


www.NJTRANSIT.com

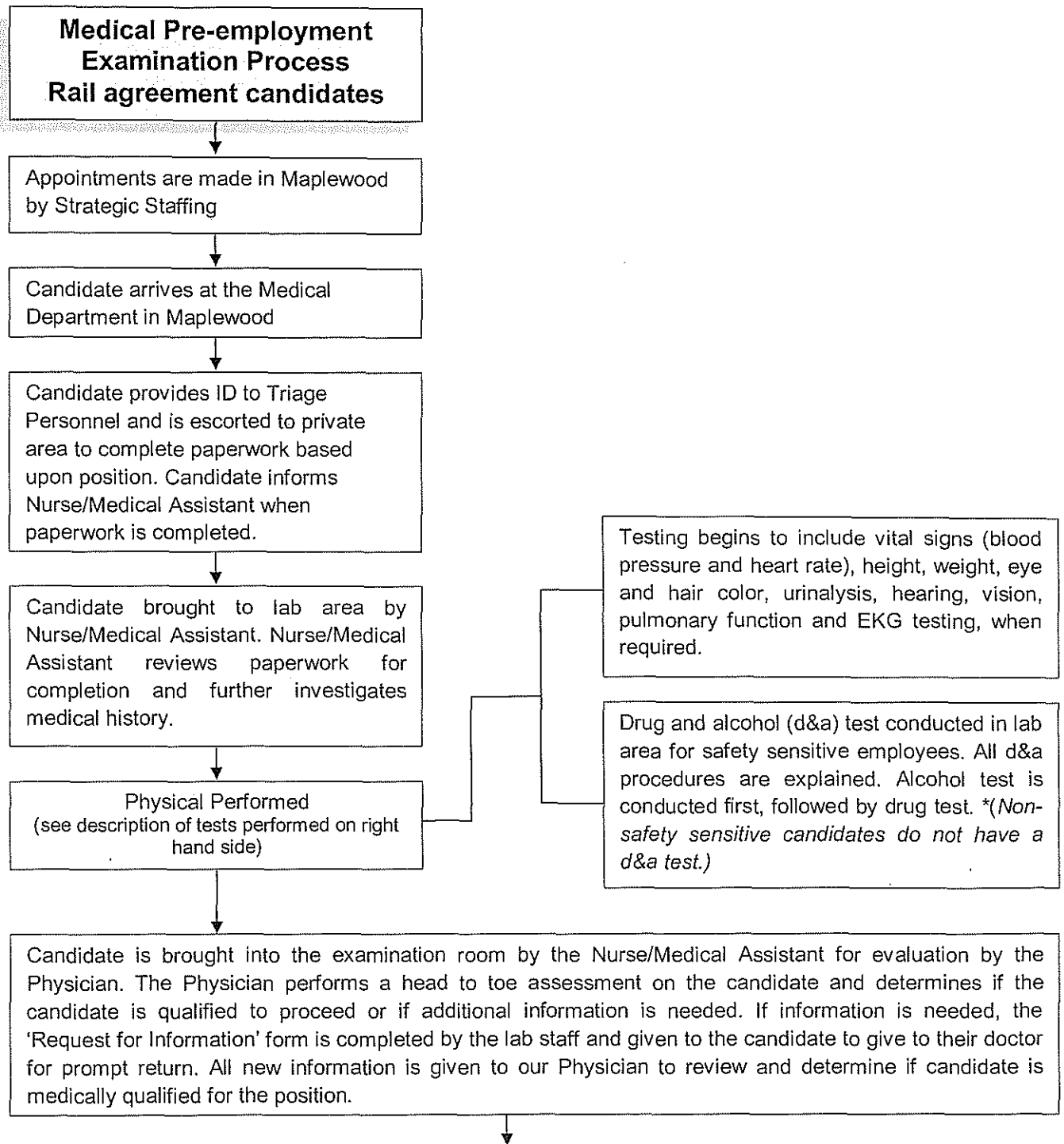
Help Desk | Phone Directory | Site Help

@transit > EAP & Medical Services > Medical Services > Organizational Chart

Organizational Chart



NJ TRANSIT Medical Services Department

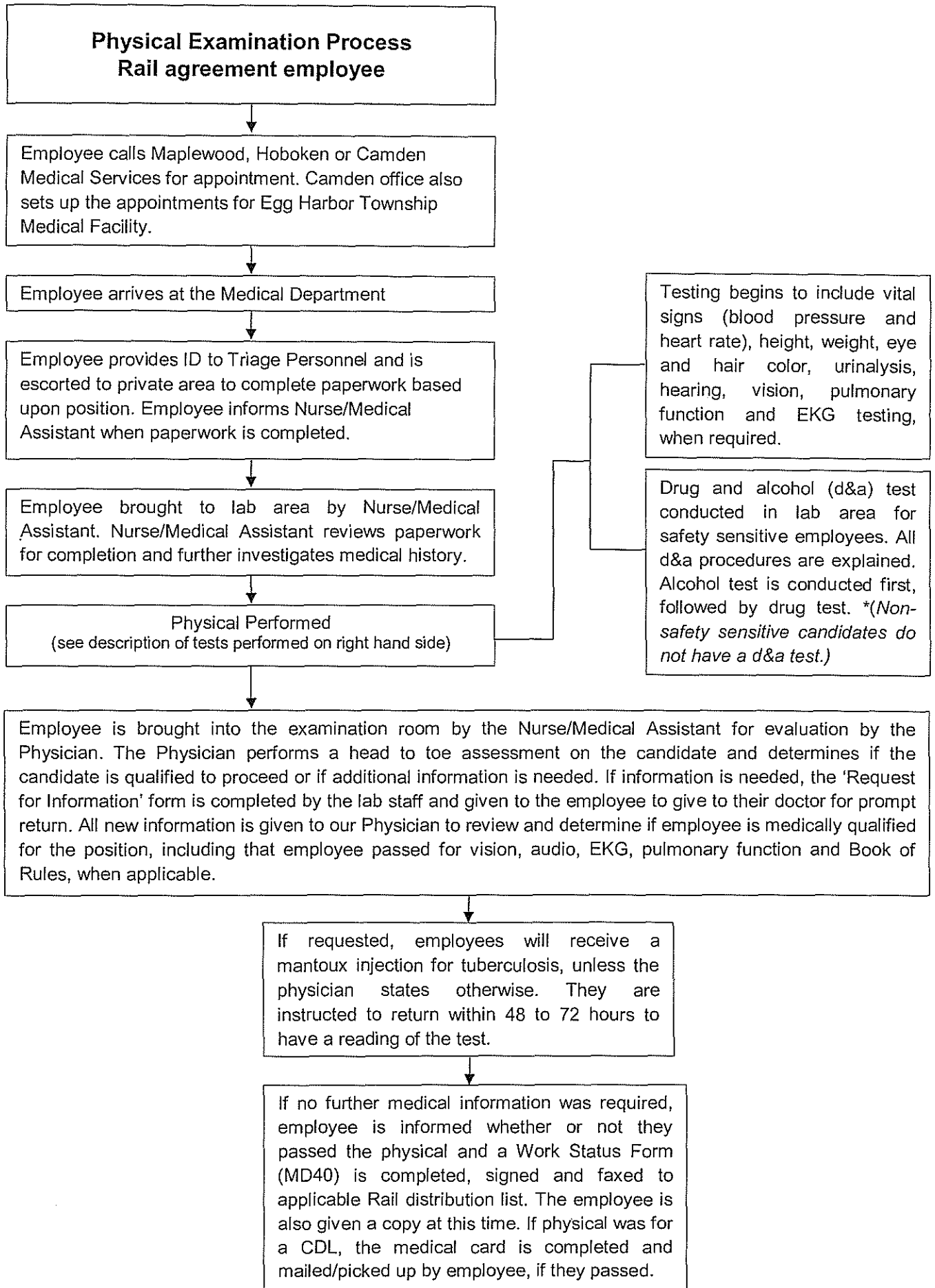


All pre-employment candidates will receive a mantoux injection for tuberculosis, unless the physician states otherwise. They are instructed to return within 48 to 72 hours to have a reading of the test.

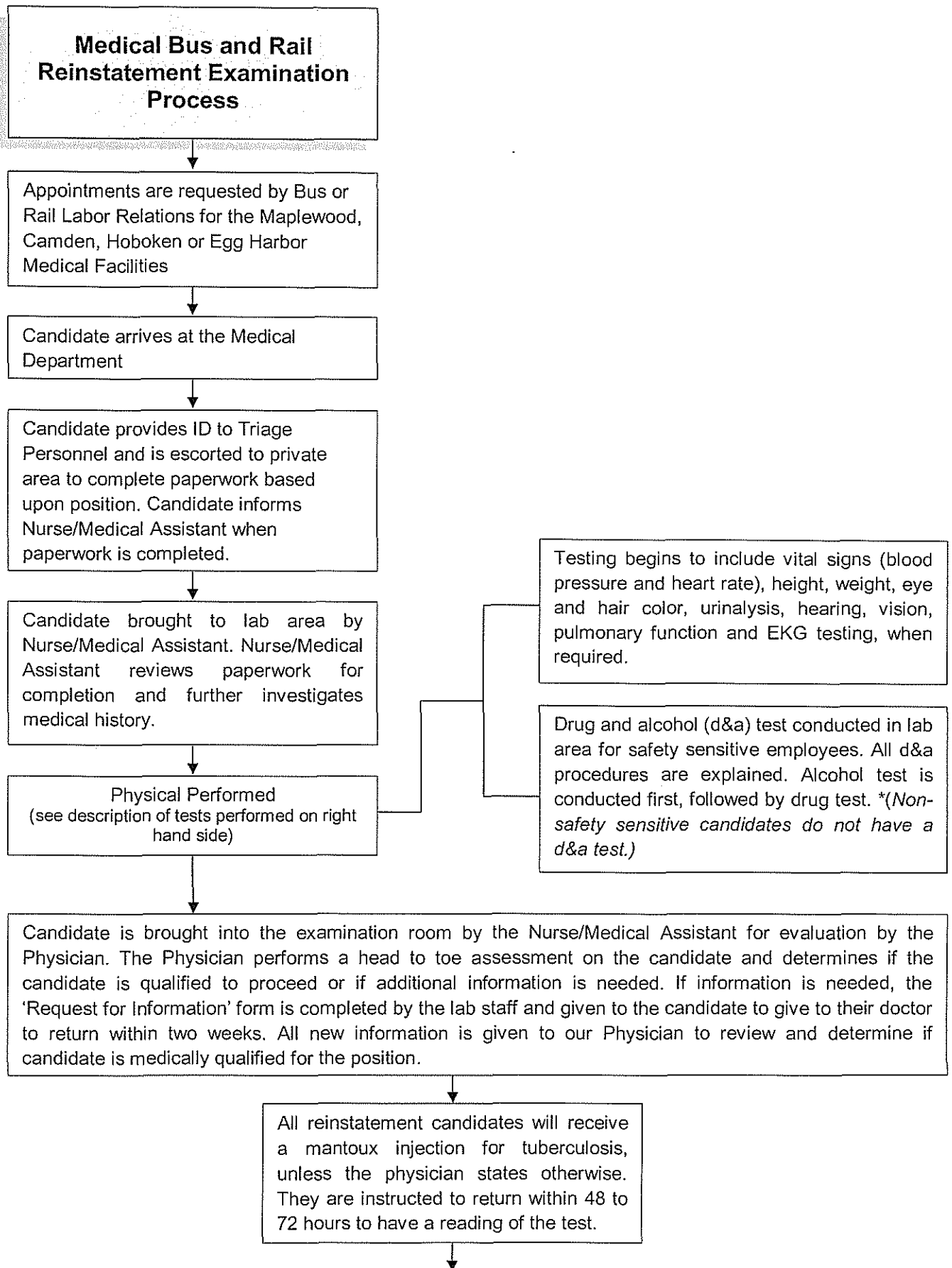
Medical awaits drug results from laboratory. If drug results come back as negative and no further medical information was required, candidate is approved and 'Medically Approved' form is completed and faxed to Strategic Staffing.

If drug test results come back as positive, candidate is called by MRO/MRO Assistant to return to Medical Services. The candidate first meets with the Medical Review Officer (MRO) who will rule the drug test as either positive or negative. If drug test is ruled positive, Medical completes 'Medically Not Approved' form and faxed to Strategic Staffing. If drug test is ruled as negative by the MRO, candidate will be medically approved and 'Medically Approved' slip faxed to Strategic Staffing.

NJ TRANSIT Medical Services Department



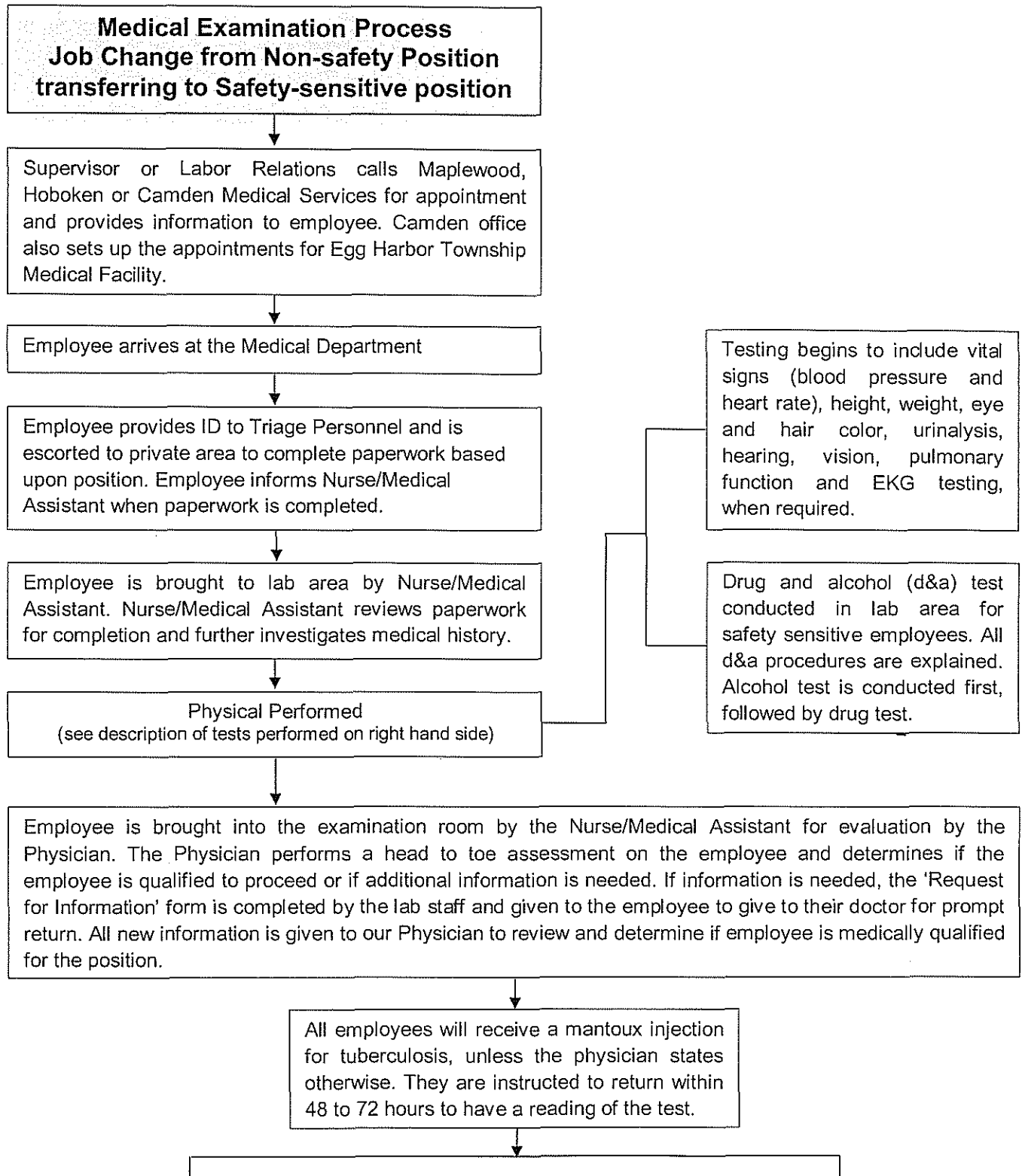
NJ TRANSIT Medical Services Department



Medical awaits drug results from laboratory. If drug results come back as negative and no further medical information was required, candidate is approved and 'Medically Approved' form is completed and faxed to Bus or Rail Labor Relations and the former employee's supervisor.

If drug test results come back as positive, reinstatement candidate is called by MRO/MRO Assistant to return to Medical Services. The candidate first meets with the Medical Review Officer (MRO) who will rule the drug test as either positive or negative. If drug test is ruled positive, Medical completes 'Medically Not Approved' form and faxed to Bus or Rail Labor Relations and the former employee's supervisor. If drug test is ruled as negative by the MRO, candidate will be medically approved and 'Medically Approved' slip faxed to Bus or Rail Labor Relations and the former employee's supervisor.

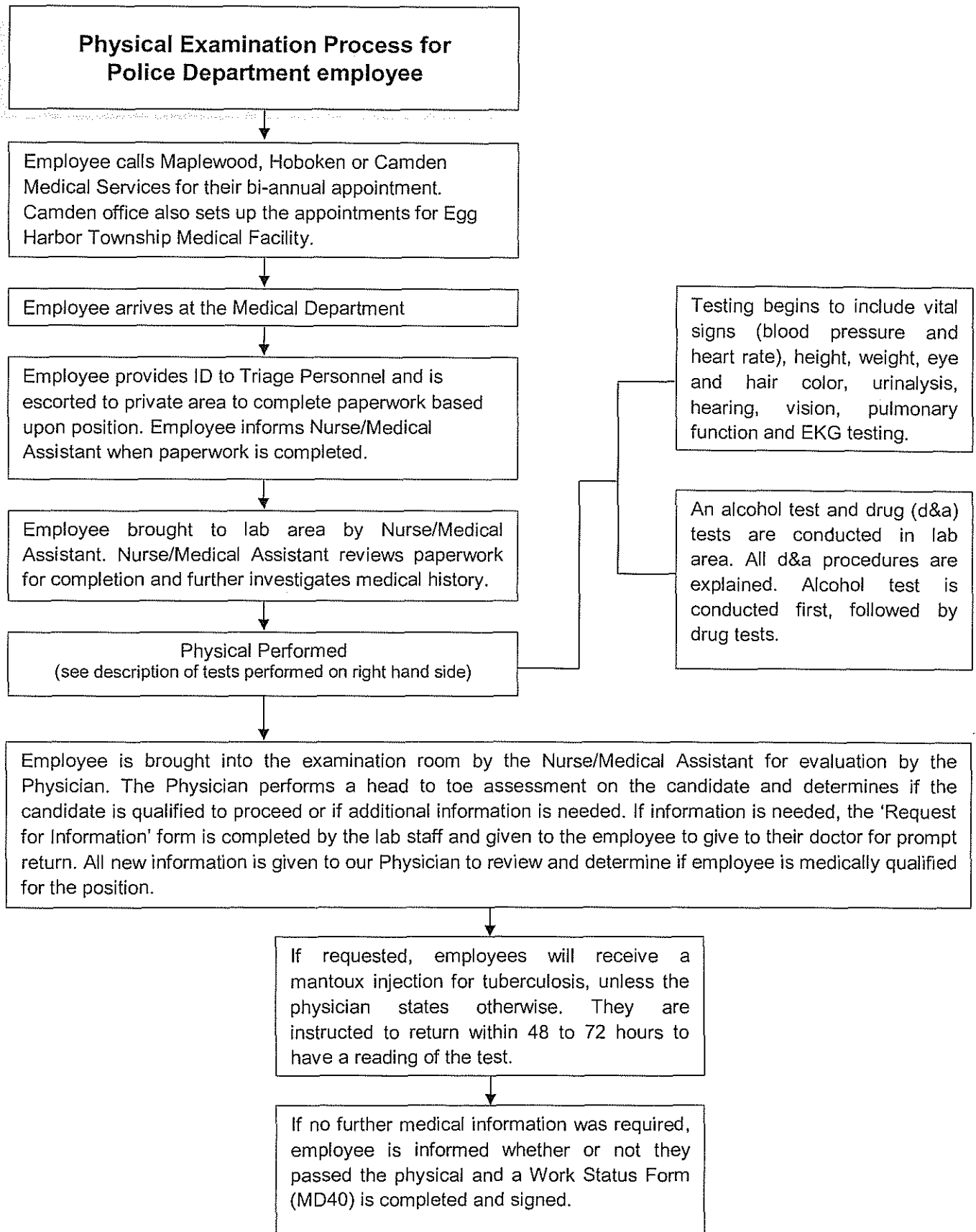
NJ TRANSIT Medical Services Department



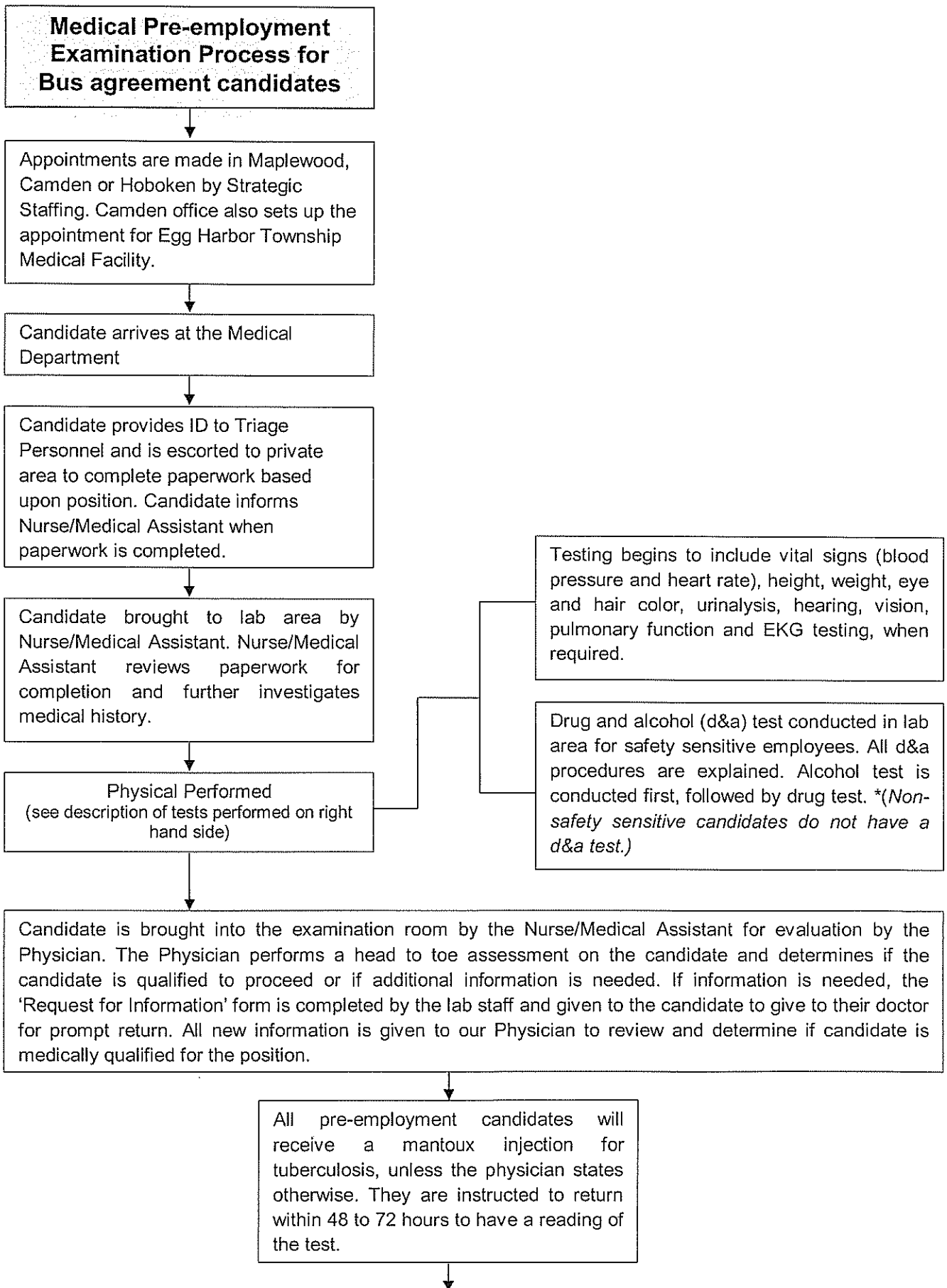
Medical awaits results of drug test from laboratory. If drug test results come back as positive, employee is called by MRO/MRO Assistant to return to Medical Services. The employee first meets with the Medical Review Officer (MRO) who will rule the drug test as either positive or negative. If drug test is ruled positive by the MRO, the employee then talks to Medical Services staff regarding the drug policy violation and procedures and that the employee is now unavailable for work. The employee is provided with a copy of their positive drug test result and Work Status Form (MD40). At the same time, employee's supervisor is contacted by phone while employee is still there and advised of the violation. The employee is also told to contact their Union Representative.

Medical awaits drug results from laboratory. If drug results come back as negative and no further medical information was required, Work Status Form (MD40) is completed by Physician or Nurse, including that the employee passed for vision, audio, EKG, pulmonary function and Book of Rules, when applicable. Employee called by Medical Services staff and informed of approval. This form is then faxed to Rail Assignment Desk or Bus Labor Relations/new supervisor and employee is told to go to Assignment Desk (for Rail) or to contact new supervisor for Bus. If physical was for a CDL, the medical card is completed and mailed/picked up by employee.

NJ TRANSIT Medical Services Department



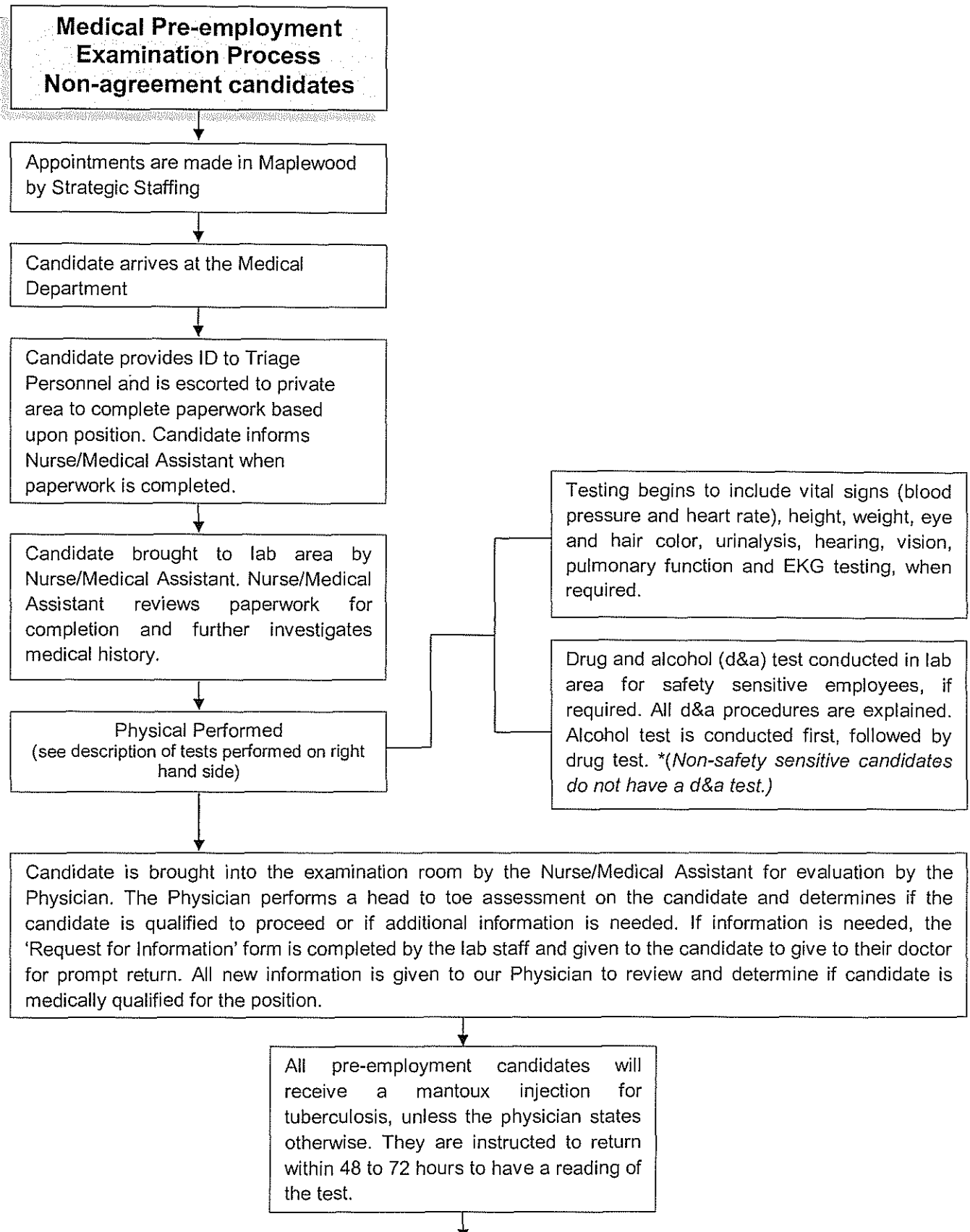
NJ TRANSIT Medical Services Department



Medical awaits drug results from laboratory. If drug results come back as negative and no further medical information was required, candidate is approved and 'Medically Approved' form is completed and faxed to Strategic Staffing.

If drug test results come back as positive, candidate is called by MRO/MRO Assistant to return to Medical Services. The candidate first meets with the Medical Review Officer (MRO) who will rule the drug test as either positive or negative. If drug test is ruled positive, Medical completes 'Medically Not Approved' form and faxed to Strategic Staffing. If drug test is ruled as negative by the MRO, candidate will be medically approved and 'Medically Approved' slip faxed to Strategic Staffing.

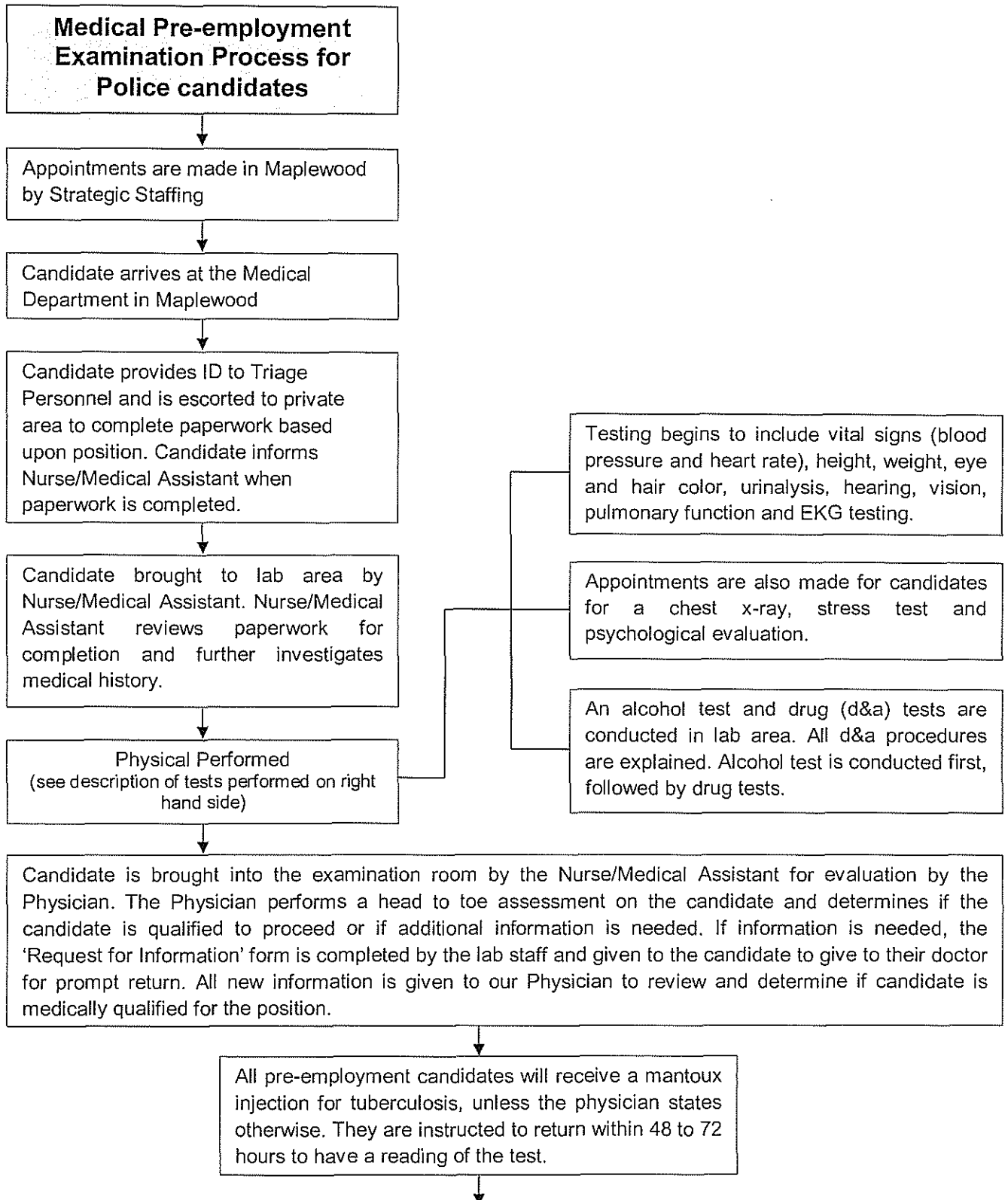
NJ TRANSIT Medical Services Department

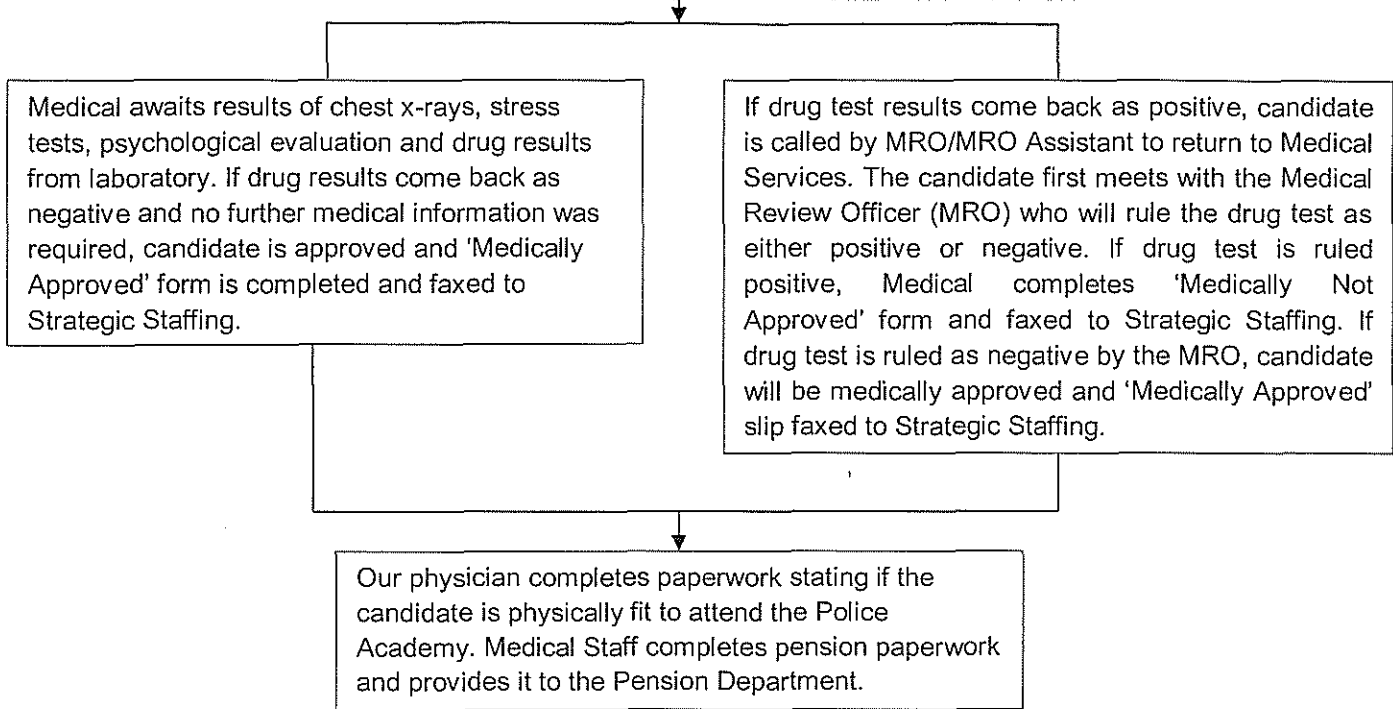


Medical awaits drug results from laboratory. If drug results come back as negative and no further medical information was required, candidate is approved and 'Medically Approved' form is completed and faxed to Strategic Staffing.

Medical awaits drug results from laboratory. If drug test results come back as positive, candidate is called by MRO/MRO Assistant to return to Medical Services. The candidate first meets with the Medical Review Officer (MRO) who will rule the drug test as either positive or negative. If drug test is ruled positive, Medical completes 'Medically Not Approved' form and faxed to Strategic Staffing. If drug test is ruled as negative by the MRO, candidate will be medically approved and 'Medically Approved' form is faxed to Strategic Staffing.

NJ TRANSIT Medical Services Department





OCCUPATIONAL CODES FOR NJT DRUG TESTING
BUS OPERATIONS

Transportation Supervisors (Operations) and Assistants	1001	
Starters, Parking Lot Attendants	1001	
Spot Masters and Depot Clerks	1001	
Terminal Supervisors	1001	
Regional Supervisors	1001	
Instructors	1001	
Superintendent LRT Transportation	1001	
LRT Operations Controller	1001	
LRT Operations Training Specialist	1001	
LRT Maintenance training Specialist	1001	
Director LRT Operations	1001	Total 343

Bus Operators - Full & Part time	1003	
LRT Operator	1003	Total 3661

Din Crew – which are required to have CDL’s		
And operate non-revenue vehicles	1004	Total 56

Police Officers	1006	Total 235
------------------------	------	------------------

Mechanical Department

This includes Servicemen, Mechanics, and Repairman

Bus Foremen and Bus Superintendent	1010	
Assistant Superintendent Newark City Subway	1010	
Apprentice Technician	1010	
Light Rail Technician	1010	
Special Light Rail Technician	1010	
Assistant Superintendent LRT Track	1010	
Asst. Supt. LRT Signals & ET	1010	
Supt. LRT Systems Eng. & M of W	1010	
Asst. Supt. Mechanical	1010	
Superintendent LRT Mechanical	1010	Total 1024

RAIL CODES (FRA)

Conductors & Train persons	2001	Total 1059
Signalmen and other employees who work on signals (Herzog 15)	2002	Total 162-1451
Engine Service Engineers, Hostlers	2003	Total 410
Block Operators and Dispatchers	2004	Total 69
Electricians	2005	Total 232

FEDERAL MOTOR CARRIER & SAFETY ADMIN. (FMCSA)

These employees are rail employees who are responsible for moving heavy equipment that falls under the FMSCA. They follow the same guidelines as printed in the FMSCA handbook

FMCSA Drug & Alcohol Code	4000	Total 103
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All other employee who are tested for other than DOT reasons are to be coded as 3000.

Please be careful when coding in the logs, this information is used to conduct the monthly counts for report and the annual MIS report.

Obstructive Sleep Apnea Procedure for Rail Safety-Sensitive Employees and Candidates (Locomotive Engineers and Conductors)

NJ TRANSIT Medical Services Department

NJ TRANSIT Medical Services Department conducts screenings to identify possible sleep disorders for all current safety-sensitive employees and new hires. Any safety-sensitive employee/candidate who meets the criteria and/or has a diagnosis of a sleep disorder is required to provide Medical Services with documentation verifying that their sleep disorder has been treated and stabilized before they can be medically approved. Identified safety-sensitive employees will be placed into an Obstructive Sleep Apnea Monitoring Program.

Safety-sensitive employees required to obtain periodic physical examinations for their position are given a sleep assessment as part of their physical. If a sleep disorder is identified as a safety concern, the employee will be referred for further evaluation (i.e. to a sleep specialist). NJ TRANSIT (NJT) medical staff can facilitate the securing of an expedited appointment at a Certified Sleep Center for testing and treatment, utilizing their health insurance. Home sleep studies are not acceptable.

The specific steps the Medical Department follows for safety-sensitive employees and pre-employment candidates are:

1. NJT Physician examines safety-sensitive employee/candidate to determine if medically qualified (usually during physical exam-Book of Rules, periodic, Commercial Driver's License, etc.).
2. NJT Physician completes Obstructive Sleep Apnea Evaluation during physical exam.
 - A. If the safety-sensitive **employee has an existing diagnosis and is not being treated**, the NJT Physician refers them for further evaluation to their primary care physician or a certified sleep center and is removed from service. If their test results determine that there is a diagnosis of a sleep disorder, they are required to provide documentation that their condition is being treated and monitored. Documentation will include copies of their Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) and a letter from their treating Sleep Specialist stating that they are in compliance with treatment. Safety-sensitive employees are then added to an annual program and then monitored yearly for compliance upon receiving medical documentation.
 - a. If they are non-compliant annually, they will be removed from service.
 - b. If their test results determine that there is no longer a diagnosis of a sleep disorder, they will be medically approved and removed from the annual program upon receiving medical documentation.
 - B. If the safety-sensitive **employee has an existing diagnosis and is being treated**, they are required to provide annual documentation that their condition is being treated and monitored. Documentation will include: copies of their Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) or CPAP titration report within normal range, and a letter from physician stating that employee is treated with CPAP use AT LEAST 4 HOURS for 70% of the time. That he/she is able to operate a transportation vehicle. The employee must also

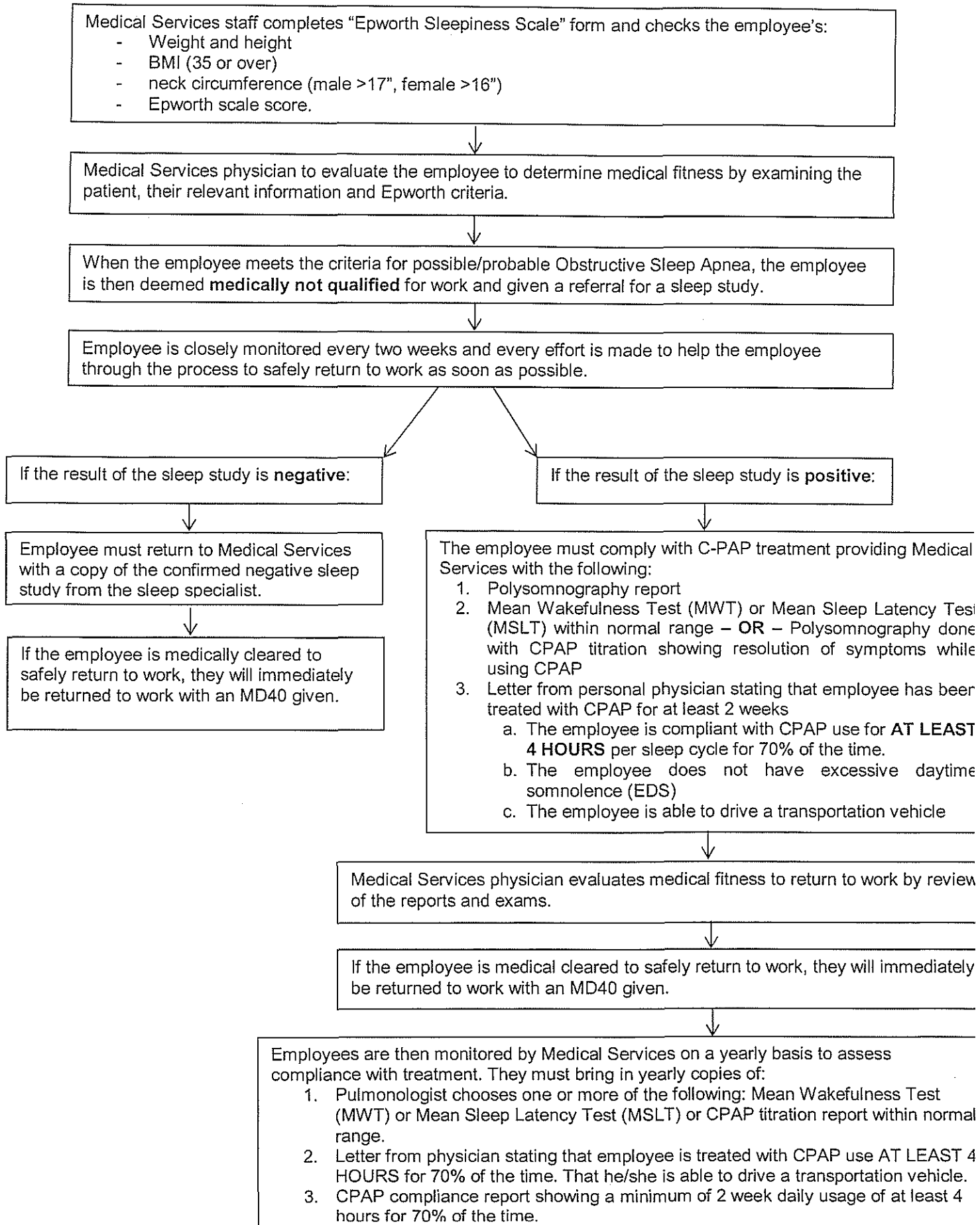
provide a CPAP compliance report showing a minimum of 2 weeks daily usage of at least 4 hours for 70% of the time. Safety-sensitive employees are then monitored annually for compliance.

- a. If they are non-compliant, they will be removed from service.
- C. If the safety-sensitive **employee has no current diagnosis, but meets the criteria** for a possible sleep disorder, the NJT Physician refers them to a certified sleep center for a sleep study and is removed from service. If their test results determine that there is a diagnosis of a sleep disorder, they are required to provide documentation that their condition is being treated and monitored. Documentation will include Polysomnography report, Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) within normal range –OR– Polysomnography done with CPAP titration showing resolution of symptoms while using CPAP and a letter from a the sleep specialist stating that employee has been treated with CPAP for at least 2 weeks including compliance with CPAP use for AT LEAST 4 HOURS per sleep cycle for at least 70% of the time, employee does not have excessive daytime somnolence (EDS) and employee is able to operate a transportation vehicle. Safety-sensitive employees are then monitored annually for compliance.
- a. If their test results determine that there is no diagnosis of a sleep disorder, they will be medically approved and removed from the annual program upon receiving medical documentation, upon being hired.
- D. If a **safety-sensitive pre-employment candidate has an existing diagnosis and is not being treated**, the NJT Physician refers them for further evaluation to their primary care physician. They will not be medically approved until they provide documentation that their condition is being treated and monitored. Documentation will include: copies of their Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) or CPAP titration report within normal range, and a letter from physician stating that employee is treated with CPAP use AT LEAST 4 HOURS for 70% of the time. That he/she is able to operate a transportation vehicle. The employee must also provide a CPAP compliance report showing a minimum of 2 weeks daily usage of at least 4 hours for 70% of the time. They are then monitored annually for compliance, upon being hired.
- E. If a **safety-sensitive pre-employment candidate has an existing diagnosis and is being treated**, they are required to provide documentation that their condition is being treated and monitored. They will not be medically approved until they provide documentation that their condition is being treated and monitored. . Documentation will include: copies of their Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) or CPAP titration report within normal range, and a letter from physician stating that employee is treated with CPAP use AT LEAST 4 HOURS for 70% of the time. That he/she is able to operate a transportation vehicle. The employee must also provide a CPAP compliance report showing a minimum of 2 weeks daily usage of at least 4 hours for 70% of the time. They are then monitored annually for compliance, upon being hired.
- F. If a **safety-sensitive pre-employment candidate has no current diagnosis, but meets the criteria** for a possible sleep disorder, the NJT Physician refers them for further evaluation and a sleep study to their primary care physician. If their test results determine

that there is a diagnosis of a sleep disorder, they will not be medically approved until they provide documentation that their condition is being treated and monitored. Documentation will include Polysomnography report, Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) within normal range –OR- Polysomnography done with CPAP titration showing resolution of symptoms while using CPAP and a letter from a the sleep specialist stating that employee has been treated with CPAP for at least 2 weeks including compliance with CPAP use for AT LEAST 4 HOURS per sleep cycle for at least 70% of the time, employee does not have excessive daytime somnolence (EDS) and employee is able to operate a transportation vehicle. They are then monitored annually for compliance, upon being hired.

3. **Any employee** (safety-sensitive or non-safety-sensitive) may be referred to Medical Services for a *fitness for duty exam* due to a possible sleep disorder.

New Jersey Transit Medical Services Department
Sleep Assessment Monitoring Procedure



New Jersey Transit
 MEDICAL SERVICES DEPARTMENT

Obstructive Sleep Apnea Evaluation

Maplewood Hoboken Camden Egg Harbor Outside Facility

TO BE COMPLETED BY PHYSICIAN FOR ALL
 SAFETY-SENSITIVE EMPLOYEES

Date of Service: _____ Age: _____ years
 Employee Name: _____ Employee Number: _____
 Weight: _____ Height: _____ BMI: _____ Neck Circumference: _____

HAVE YOU EVER BEEN DIAGNOSED OR TREATED FOR SLEEP APNEA YES or NO

Epworth Sleepiness Scale

How likely are you to doze off or fall asleep in the following situations, in contrast to just feeling tired? This questionnaire refers to your chance of falling asleep, according to your usual way of life, for about the last week or two. Even if you have not done some of these things recently, try to estimate how they would have affected you during the last two weeks.

TO BE COMPLETED BY PATIENT					
Questionnaire			Do you fall asleep:		
Is your age greater than 50?	Yes	No	Sitting and reading	Yes	No
Is your gender male?	Yes	No	Watching TV	Yes	No
Have you ever been diagnosed with high blood pressure or been treated for it?	Yes	No	Sitting inactive in a public place (i.e. in a theater or a meeting)	Yes	No
Are you or were you prescribed use of a machine or medication while sleeping?	Yes	No	As a passenger in a car for an hour without a break	Yes	No
Have you been observed snoring loudly (louder than talking or loud enough to be heard through closed doors?)	Yes	No	Lying down to rest in the afternoon when circumstances permit	Yes	No
Do you often feel tired, fatigued or sleepy during the daytime; such as while driving?	Yes	No	Sitting and talking to someone	Yes	No
Has anyone observed your breathing interrupted while you sleep?	Yes	No	Sitting quietly after lunch without alcohol	Yes	No
Have you ever had an accident associated with falling asleep?	Yes	No	In a car, while stopped for a few minutes in traffic	Yes	No
Patient Signature: _____			Date: _____		

TO BE COMPLETED BY PHYSICIAN

OBSTRUCTIVE SLEEP APNEA RISK SUMMARY

BMI = ≥ 35 kg/m² Neck Circumference: _____ inches (greater than 17 inches in males; or 16 in females)

Age is more than 50 years

Presence of: Retrognathia or Micrognathia Arterial hypertension Coronary artery disease Myocardial infraction

Stroke Atrial Fibrillation Nocturnal dysrhythmias Congestive heart failure Diabetes Mellitus

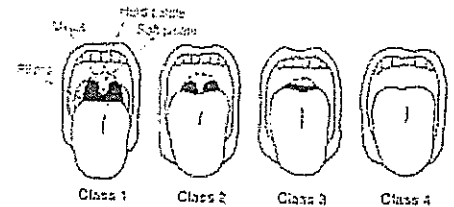
Mallampati Classification: III or IV

Class I - Visualization of labeled anatomy and lauces

Class II - Unable to visualize pillars

Class III - Visualization of soft palate and base of uvula

Class IV - Unable to visualize soft palate



PHYSICIAN COMMENTS:

FINAL OBSTRUCTIVE SLEEP APNEA RISK DETERMINATION

CERTIFICATION STATUS

BMI = ≥ 35 kg/m²

Pending determination (45 days) or limited certification for a maximum of 3 months. Referred for evaluation of OSA

BMI < 35 kg/m² with additional risk elements that, in my opinion, is suggestive of OSA

Pending determination (45 days) or limited certification for a maximum of 3 months. Referred for evaluation of OSA

BMI < 35 kg/m² with few or no additional risk elements that is not suggestive of OSA

Certification for _____

Driver admits to experiencing excessive sleepiness during the major wake period while driving, had a crash associated with falling asleep, or is found to be non-compliant with OSA treatment

IMMEDIATE DISQUALIFICATION

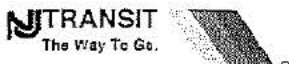
Physician Name: _____ Physician Signature: _____ Date: _____

Outside Facility Information (if applicable)

Facility Name: _____

Facility Address: _____

Facility Phone Number: _____



MEDICAL EXAMINATION

- Pre-Placement Exam
- Periodic Exam
- Return From Furlough
- Other _____
- Return From Occupational Disability
- Return From Non-Occ. Disability

Date and time of exam: / / at :

JOB TITLE & LOCATION:

Name: Last First Middle			Employee No. or Social Security No.			Date of Birth		
Blood Pressure		Pulse	Ht.	Wt.	Age	Sex	Eyes	Hair

Urinalysis	Albumin	Glucose	Sp. Gr.
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NORMAL	EXAMINATION	ABN/NA	Nurse's Comments on Abnormalities
	1. General Appearance		Denies any injuries to neck, back, shoulders or knees. _____ initials
	2. Head, Face and Neck		
	3. Nose and Sinuses		
	4. Mouth, Dental and Throat		
	5. Eyes and Pupils		
	6. Ears and Eardrums		
	7. Lungs and Chest		
	8. Heart		
	9. Vascular and Lymphatics		
	10. Abdomen and Viscera		
			Physician's Comments on Abnormalities
	11. Hernia		
	12. Endocrine and G-U System		
	13. Spine - (Range of Motion)		
	14. Upper Extremities - (ROM)		
	15. Lower Extremities - (ROM)		
	16. Skin, Body marks and Scars		
	17. Neurologic System		
	18. Emotional Status		
	19. Habits - Substance Abuse		
	20. Tobacco - ETOH Dependency		
	21. GYN History		

Job Classification: A = Sedentary Work B = Light Work C = Moderate Work D = Hard Work E = Very Hard Work

Accepted For Job Classification (Circle One): A B C D E Without Lenses With Lenses

Conditional Acceptance With Reasonable Accommodation:

Conditional Acceptance Pending: Medical Treatment Attending Doctor's Clearance Additional Testing

Not Qualified

Remarks: _____

Date:	Staff:	Physician:
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DO NOT WRITE BELOW THIS LINE

REVIEW OF DIAGNOSTIC PROCEDURES & ASSESSMENTS

FCE	Normal	Abnormal	See Report	
Stress Test	Normal	Abnormal	See Report	
Psyche Evaluation	Normal	Abnormal	See Report	
EKG	Normal	Abnormal	See Report	Vision Acuity: _____
Spirometer	Normal	Abnormal	See Report	Color: _____
X-Ray	Normal	Abnormal	See Report	Other: _____
Blood Work	Normal	Abnormal	See Report	Drug/Alcohol Test: _____
Hearing: _____				Reviewed By: _____
Other: _____				

PLEASE COMPLETE ENTIRE PAGE

Position		Date
Name: Last, First, Middle	Social Security or Employee No.	Birthdate
Home Address: No. Street, City, State, Zip Code		Telephone No.
Name And Address Of Your Personal Physician		Date Last Seen

	YES	NO	EXPLANATION
Have you been examined by any other physicians other than your personal physician as above?			
Have you taken any medications in the past two weeks, and are you on any medication now?			
Have you ever been a patient in a hospital, clinic, institution or a rehabilitation/detoxification center?			
Have you ever received counseling or treatment regarding the use of alcohol or drugs?			
Have you ever used Marijuana, Cocaine, Amphetamines, PCP, Heroin, Opiates, Barbiturates or other narcotics?			
Do you know of any physical or mental condition which might restrict your ability to work?			
Do you have any deformity, amputation or physical defect?			
Have you lost any time from work?			
Have you ever received or are now receiving disability payments because of injury, illness or military service disability?			
Have you ever been diagnosed or treated for sleep apnea?			

Have you ever been treated for, do you have or have you ever had any of the following?:								
	YES	NO		YES	NO		YES	NO
Alcoholism			Headaches			Lung Problems or Asthma		
Drug Addiction			Dizziness or Vertigo			Tuberculosis		
Allergies			Epilepsy or Convulsions			Thyroid Problems		
Back Trouble, Disc or Injury			Fainting Spells			Stomach Problems or Ulcer		
Bone or Joint Deformity			Mental Disorder			Liver Problems or Hepatitis		
Broken Bones or Diseases			Nervous Disorder/Breakdown			Malaria		
Shoulder, Arm, Hand Trouble			Eye Trouble			Hernia or Rupture		
Shoulder, Arm, Hand Pains			Double Vision or Blindness			Diabetes		
Hip, Knee, Leg Trouble			Ear Trouble or Tinnitus			Recent Weight Gain or Loss		
Hip, Knee, Leg Pains			Hearing Loss			Hives or Poison Ivy		
Neck, Trouble, Disc or Injury			High or Low Blood Pressure			Dermatitis or Skin Rash		
Varicose Veins			Heart Trouble or Murmur			Bladder/Urination Problems		
Foot Trouble or Pains			Chest Pains or Palpitations			Kidney Trouble or Stone		
Painful Joints or Muscles			Diagnostic Tests (i.e.:CT scan/MRI)			Cancer, Tumor or Cyst		
Arthritis or Rheumatism			Shortness of Breath or Cough			Other – Not Listed Above		
Anxiety/Depression			Weakness or Fatigue					
Head Injury or Concussion			Anemia or Blood Problems					

If any of the above have been answered YES, please explain in the space provided below:

I certify that I have read and truthfully answered all questions regarding my health history. I understand that statements on this form may be investigated and that any misrepresentation or omission of material fact will be sufficient cause for my dismissal from the Company's service if I am employed. In submitting this form, I understand that I am giving permission for a medical examination.

Date:	Employee Signature:	Witness:
-------	---------------------	----------

Chris Christie, Governor
Kim Guadagno, Lieutenant Governor
Richard T. Hammer, Commissioner
Steven H. Santoro, Executive Director



MEDICAL DEPARTMENT


Date: _____

Patient Name: _____

SSN#: _____ DOB: _____

Home Phone #: _____ Work Phone #: _____

Address: _____

City: _____ State: _____ Zip Code: _____

NJ Transit Contact: _____ Phone #: _____

Neck Circum.: _____ BMI: _____ BP: _____ WT: _____ HT: _____

Reason for Referral: _____ Observed sleepiness

Orders for Polysomnogram (Sleep Study) Testing:

- Diagnostic Polysomnogram (Standard)
- Split Polysomnogram/CPAP Titration; if necessary

Physician Name

Physician Signature

Address City State Zip Code

Phone # Fax # Date

Chris Christie, Governor
Kim Guadagno, Lieutenant Governor
Richard T. Hammer, Commissioner
Steven H. Santoro, Executive Director

NJ TRANSIT
MEDICAL SERVICES



RAIL
INITIAL LETTER FOR PHYSICIAN

Please provide this letter to your Physician

Date: _____

TO WHOM IT MAY CONCERN:

Regarding: _____ Employee #: _____

The above-named is referred for further supplemental clinical examination and evaluation of **Obstructive Sleep Apnea**. Where indicated, appropriate certification attesting to the satisfactory correction or control of any existing abnormality is requested. It is understood that this supplemental medical information is to be obtained at the applicant's own initiative and expense.

Please provide the following requested information to assist in returning him/her to work:

Guidelines for DOT operators of transportation vehicles with Obstructive Sleep Apnea (OSA)

Newly diagnosed/suspected:

In order to operate a vehicle, the employee must bring in **COPIES** of:

1. Polysomnography report
2. Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) within normal range – **OR** – Polysomnography done with CPAP titration showing resolution of symptoms while using CPAP
3. Letter from personal physician stating that employee has been treated with CPAP for at least 2 weeks.
 - a. The employee is compliant with CPAP use for **AT LEAST 4 HOURS** per sleep cycle for at least 70% of the time.
 - b. The employee does not have excessive daytime somnolence (EDS).
 - c. The employee is able to operate a transportation vehicle.

Existing Diagnosis:

Must bring in **YEARLY** copies of:

1. Please have your pulmonologist choose one or more of the following: Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) or CPAP titration report within normal range.
2. Letter from physician stating that employee is treated with CPAP use **AT LEAST 4 HOURS** for 70% of the time. That he/she is able to operate a transportation vehicle.
3. CPAP compliance report showing a minimum of 2 week daily usage of at least 4 hours for 70% of the time.

At this time, you will be required to return to the Medical Department every two weeks. Your next appointment is on _____.

If you have any questions, please contact: _____, R.N. at _____.

Thank you for your cooperation.

Physician's Name

Fifth Edition

The DOT Medical Examination

Natalie P. Hartenbaum, MD, MPH, Editor

**A Guide to
Commercial Drivers'
Medical Certification**

The American Thoracic Society (ATS) [38] discussed the importance of OSA's role in vehicle accidents and suggests use of a higher level of caution in commercial drivers. The ATS defined a high-risk individual as one who has excessive daytime sleepiness as well as a prior motor vehicle accident.

Some states, such as California and Texas, address sleep apnea in their medical criteria for drivers [21].

A task force composed of members from the American College of Occupational and Environmental Medicine (ACOEM), American College of Chest Physicians (ACCP), and the National Sleep Foundation (NSF) prepared an extensive review of the commercial driver with OSA including recommendations on screening, diagnosis, treatment, and follow-up [25]. (See Tables 5-1 and 5-2.) Talmage and colleagues [7].

Table 5-1. Tri-Medical Society Task Force Recommendations—
Screening Recommendations for Commercial Drivers with
Possible or Probable Sleep Apnea

Medically qualified to drive commercial vehicles if either of the following:	In-Service Evaluation recommended (ISE) if driver falls into one of the following five major categories (3 months max. certification):	Out-of-Service Immediate Evaluation (OSE) recommended if driver meets any one of the following factors:
1. No positive findings or only one of the numbered in-service evaluation factors 2. Diagnosis of OSA with CPAP compliance documented	1. Sleep history suggestive (snoring, excessive daytime sleepiness, witnessed apneas) 2. Two or more of the following: a. BMI \geq 35, b. Neck circumference greater than 17 inches in men, 16 inches in women c. Hypertension (new, uncontrolled, or unable to control with less than two medications)	1. Observed unexplained excessive daytime sleepiness (sleeping in exam or waiting room); confessed excessive sleepiness 2. Motor vehicle accident (run off road, at fault rear-end collision) likely related to sleep disturbance unless evaluated for sleep disorder in the interim

(continues)

Table 5-1. Continued

Medically qualified to drive commercial vehicles if either of the following:	In-Service Evaluation recommended (ISE) if driver falls into one of the following five major categories (3 months max. certification):	Out-of-Service Immediate Evaluation (OSE) recommended if driver meets any one of the following factors:
2. Diagnosis of OSA with CPAP compliance documented (continued)	3. ESS greater than > 10 4. Previously diagnosed sleep disorder: Compliance claimed but no recent medical visits/compliance data available for review (must be reviewed within 3-month period). If not compliant, should be removed from service. (Includes surgical treatment) 5. AHI > 5 but < 30 in a prior sleep study or polysomnogram and no excessive daytime somnolence (ESS < 11), no motor vehicle accidents, no hypertension requiring 2 or more agents to control	3. ESS > 16 or FOSQ < 18 4. Previously diagnosed sleep disorder: a. Noncompliant (CPAP treatment not tolerated) b. No recent follow-up c. Any surgical approach with no objective follow-up 5. AHI > 30

Source: Adapted from Hartenbaum et al. (2006) with permission of ACOEM.

found that these criteria had a high positive predictive value in determining which drivers should undergo evaluation for OSA. Of the 134 drivers who met the screening criteria and had polysomnograms, 98% were diagnosed with OSA. In another study by Parks and colleagues [39], 20 out of 20 drivers who meet the criteria for further evaluation were diagnosed with OSA. In order for their criteria to be acceptable, the Task Force participants aimed for the "tip of the iceberg" hoping to identify those at highest risk of having OSA and to have them evaluated. They recognized that the screening criteria had a low sensitivity,

Table 5-2. Tri-Medical Society Task Force—Recommendations for the Evaluation for Fitness for Duty for Commercial Drivers with Possible or Probable Obstructive Sleep Apnea

Category	Recommendation
<i>Diagnosis</i>	<ol style="list-style-type: none"> 1. Diagnosis should be determined by a physician and confirmed by polysomnography, preferably in an accredited sleep laboratory or by a certified sleep specialist. 2. A full-night study should be done unless a split-night study is indicated (severe OSA identified after at least 2 hours of sleep).
<i>Treatment</i>	<ol style="list-style-type: none"> 1. First-line treatment for commercial drivers with OSA should be delivered by positive airway pressure (CPAP, BPAP). 2. All commercial drivers on PAP must use a machine that is able to measure time on pressure. 3. A minimum acceptable average use of CPAP is 4 hours within a 24-hour period, but drivers should be advised that longer treatment would be more beneficial. 4. Treatment should be started as soon as possible but within 2 weeks of the sleep study. 5. Follow-up by a sleep specialist should be done after between 2 and 4 weeks of treatment.
<i>Return to work after treatment</i> Treatment with PAP	<ol style="list-style-type: none"> 1. After about 1 week of treatment, contact between the patient and personnel from either the DME supplier or sleep specialist. 2. AHI < 5 documented with CPAP at initial titration or after surgery or with use of oral appliance. AHI < 10 depending on clinical findings. 3. Query driver on fit, compliance, and remind to bring card (if used) or machine to next visit. 4. At a minimum of 2 weeks but within 4 weeks, the driver should be reevaluated by the sleep specialist where compliance and blood pressure are assessed. 5. If compliant and blood pressure are controlled, the driver can return to work but should be certified for no longer than 3 months.

(continues)

Table 5-2. Continued

Category	Recommendation
<i>Return to work after treatment</i> Treatment with Oral Appliances	<ol style="list-style-type: none"> 1. Oral appliance should only be used as primary therapy if initial AHI < 30. 2. Prior to returning to service, must have follow-up sleep study demonstrating ideally AHI < 5 but < 10 while wearing oral appliance. 3. All reported symptoms of sleepiness must be resolved and blood pressure must be controlled.
<i>Return to work after treatment</i> Treatment with surgery or weight loss	<ol style="list-style-type: none"> 1. Follow-up sleep study, AHI ideally < 5 but < 10 is required to document efficacy.
<i>Follow-up</i>	<ol style="list-style-type: none"> 1. Drivers with OSA should be certified annually. 2. Annual evaluation by sleep specialist. 3. At least annual assessment of compliance and documentation of compliance provided to the commercial driver medical examiner for review.

Source: Adapted from Hartenbaum et al. (2006) with permission of ACOEM.

Chris Christie, Governor
Kim Guadagno, Lieutenant Governor
Richard T. Hammer, Commissioner
Steven H. Santoro, Executive Director

NJ TRANSIT
MEDICAL SERVICES

RAIL

ANNUAL OBSTRUCTIVE SLEEP APNEA COMPLIANCE PROGRAM

Employee Name: _____

Employee #: _____

Date: _____

You are now enrolled in an annual Obstructive Sleep Apnea Compliance Program.

Next year, you will be required to bring in YEARLY copies of:

1. Please have your pulmonologist choose one or more of the following: Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) or CPAP titration report within normal range.
2. Letter from physician stating that employee is treated with CPAP use AT LEAST 4 HOURS for 70% of the time. That he/she is able to operate a transportation vehicle.
3. CPAP compliance report showing a minimum of 2 week daily usage of at least 4 hours for 70% of the time.

If you have any questions, please contact:

Nurse: _____

Phone Number: _____

Thank you for your cooperation.

Physician's Name

Memorandum

Rail

NTRANSIT

HUMAN RESOURCES
MEDICAL SERVICES

E-Fax: [REDACTED]

FIRST NOTICE TO RAIL SUPERVISION

The employees below are in a Medical Monitoring Program.

Please hand the attached letter directly to the employee and have them sign and date below that they received it. Please fax this form back to the Medical Department within 48 hours to [REDACTED]

Failure of your employee to provide the required documentation will result in their being taken out of service by the Medical Department.

If you feel that there are any errors on this notice or if you have any questions, please contact Selmarie Salinas, RN, at [REDACTED].

First Name	Last Name	Emp #	Employee Signature	Date Rec'd
Example	Example	12345		

Chris Christie, Governor
Kim Guadagno, Lieutenant Governor
Richard T. Hammer, Commissioner
Steven H. Santoro, Executive Director



RAIL

FIRST NOTIFICATION FOR EMPLOYEE'S ANNUAL COMPLIANCE FOR
OBSTRUCTIVE SLEEP APNEA PROGRAM

TO: «First_Name» «Last_Name»
«Emp_»
«Location»

Date: _____

Re: Yearly compliance with Obstructive Sleep Apnea Monitoring Program

Dear «First_Name» «Last_Name»,

Enclosed is a request for information for you to submit to your physician regarding your yearly compliance with the Obstructive Sleep Apnea Monitoring Program. Medical Services must comply with guidelines which require that Obstructive Sleep Apnea problems be controlled.

Please mail, fax or bring the response from your physician to NJ Transit's Medical Services Department in Maplewood, NJ at the above address and to my attention.

The cost of treatment and reports are at the employee's own expense/insurance.

This information is due by _____.

Failure to take the above steps will result in your being unavailable for work and may jeopardize your employment with NJ Transit Rail Operations.

Please call me at the above phone number if you require any assistance.

Thank you.

Sincerely,
[Redacted], RN
NJ Transit Medical Services Department
180 Boyden Avenue
Maplewood, NJ 07040

Telephone: [Redacted]
Fax: [Redacted]

Attachment

Chris Christie, Governor
Kim Guadagno, Lieutenant Governor
Richard T. Hammer, Commissioner
Steven H. Santoro, Executive Director



RAIL

**PLEASE PROVIDE THIS LETTER TO YOUR PHYSICIAN
For yearly compliance with Obstructive Sleep Apnea Monitoring Program**

Date: _____

TO WHOM IT MAY CONCERN:

«First_Name» «Last_Name»

This employee is referred for clinical examination and evaluation of Obstructive Sleep Apnea (OSA). Please provide certification of compliance with OSA guidelines as stated below. The cost of treatment and reports are at the employee's own expense.

Please provide the following:

Existing Diagnosis:

Must bring in YEARLY copies of:

1. Please have your pulmonologist choose one or more of the following: Mean Wakefulness Test (MWT) or Mean Sleep Latency Test (MSLT) or CPAP titration report within normal range.
2. Letter from physician stating that employee is being treated and compliant with CPAP use AT LEAST 4 HOURS for 70% of the time. That he/she is able to operate a transportation vehicle.
3. CPAP compliance report showing a minimum of 2 week daily usage of at least 4 hours for 70% of the time.

Thank you for your cooperation. If you have any questions, please contact me at [REDACTED]

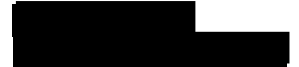
Sincerely,
[REDACTED], RN

REMINDER: This information is due to the Medical Department on _____.

Please have your Physician fax it to me at [REDACTED]

Memorandum

RAIL



FINAL NOTICE TO RAIL SUPERVISION

The employees below have failed to comply with a Medical Monitoring Program.

Please hand the attached letter directly to the employee and have them sign and date below that they received it. Please fax this form back to the Medical Department within 48 hours to

Failure of your employee to provide the required documentation will result in their being taken out of service by the Medical Department.

If you feel that there are any errors on this notice or if you have any questions, please contact [REDACTED], R.N., Manager of Clinical Services at [REDACTED]

First	Last	Emp #	Employee Signature	Date Rec'd	Appt Date
Example	Example	12345			

Memorandum

NJ TRANSIT

HUMAN RESOURCES
MEDICAL SERVICES

RAIL

FINAL NOTIFICATION FOR EMPLOYEE'S ANNUAL COMPLIANCE FOR MEDICAL MONITORING PROGRAM

To: «First_Name» «Last_Name»
«Emp_»
«Location»

From: _____
Rail Supervision

Date: _____

Subject: Yearly compliance with Medical Monitoring Program

Please be advised that NJ Transit's Medical Department has notified Rail Supervision that you have failed to provide them with your required update pursuant to the mandated medical monitoring program. You MUST do the following:

1. Immediately contact your personal physician to schedule the necessary appointment to satisfy this requirement.
2. Advise your supervisor within 24 hours of the appointment date and they will then notify medical of your appointment date and fax the sign-in sheet to Medical within 48 hours.
3. Please contact [REDACTED], RN, at [REDACTED] if you feel that this letter was sent to you in error.

Failure to take the above steps will result in your being unavailable for work and may jeopardize your employment with NJ Transit Rail Operations.

Your information must be received no later than _____.

If you have any questions, please contact me at [REDACTED]

ANNUAL LOCOMOTIVE ENGINEER **PHYSICALS**

➤ ENGINEER PHYSICALS

- ❖ LETP**
- ❖ LOCOMOTIVE ENGINEERS**
- ❖ SR. ROAD FOREMAN**
- ❖ ROAD FOREMAN**
- ❖ CHIEF ROAD FOREMAN**

⚡ Engineers need to have a physical annually in the month of their birth.

⚡ Any employee that was promoted to his/her current position from a Locomotive Engineer requires this physical.

PAPERWORK NEEDED FOR ABOVE PHYSICAL

HEALTH HISTORY

AUDIOGRAM

HEARING QUESTIONNAIRE

RESPIRATORY QUESTIONNAIRE 1 PAGE FRONT AND BACK

SLEEP ASSESSMENT QUESTIONNAIRE (for MD to complete)

MD40

B-1. GOOD FAITH CHALLENGE

Employees have the right to challenge in "good faith" any directive that would violate the operating rules or instructions in respect to the operation of hand operated switches/crossovers and fixed derails, shoving movements, leaving equipment in the clear. A part 218 challenge is different than a Roadway Worker challenge. However Roadway Workers may challenge per part 218 as well.

If a worker challenges a directive, the supervisor will not require the employee to comply with the directive until it is resolved. However, while the challenge is in effect, the challenging employee may be required to perform other tasks not related to the challenge.

Another employee may be directed to perform the challenged task. The employee directed to perform the task will be informed of the challenge and that employee must determine that the challenged task does not violate the rules.

Good Faith Challenge - Resolution

The challenge may be resolved by one of the following:

- The supervisor accepts the employee's request.
- The employee accepts the order.
- The supervisor and employee compromise to a solution.

GOOD FAITH CHALLENGE – NOT RESOLVED

If the Good Faith challenge cannot be resolved because the person issuing the directive determines that the employee's challenge has not been made in good faith or there is no reasonable alternative:

- The challenge must be immediately reviewed by a company officer that is not the officer who issued the challenged directive or his subordinate. The reviewing officer can resolve the issue using the same options listed in the resolution paragraph above.
- If the reviewing officer decides that the challenge would not cause a rules violation, the decision will not be subject to further review.
- The railroad officer must explain that federal law protects the employee from retaliation if he/she refuses to work as long as the challenge is a lawful good faith challenge.
- The Railroad must permit the employee to document the protest of the employer's final decision in writing or electronically prior to completing his/her tour of duty.
- The Railroad must provide the employee, upon written request, a further review by a designated Railroad officer within 30 days beyond the month during which the challenge occurred. The employer's verification of the application of the regulation, law, procedure or rule/instruction must be made in writing.

Copies of the Good Faith Challenge form may be picked up at sign-up locations or from your supervisor.



C-1. EXAMINATIONS – OPERATING RULES

Employees in the following crafts are subject to the **NORAC Operating Rules** and must pass a Rules examination within 60 days after entering service: Engineers, Conductors, Assistant Conductors, Assistant Engineers, Assistant Chief Dispatchers, Dispatchers, Operators, Yardmasters, Signal Department Personnel, Hi-Rail Vehicle Operators (all crafts), Foremen (including Structural Welding Foremen), Supervisors (ARASA/IBEW), Machine Operators (all classes), and any employee who may be required to obtain or copy a Form D.

They must be re-examined annually during the calendar quarter in which their date of birth occurs:

A person born in:	Must attend a Rules class in one of these three months:		
January	January	February	March
February	January	February	March
March	January	February	March
April	April	May	June
May	April	May	June
June	April	May	June
July	July	August	September
August	July	August	September
September	July	August	September
October	October	November	December
November	October	November	December
December	October	November	December

If an employee takes a Rules exam outside their quarter, they must be re-examined within their next annual quarter. Example: a newly hired employee takes a Rules exam in January, but they are born in May. They must be re-examined in April, May or June to maintain their qualification.

NOTE 1: NJ TRANSIT Train Dispatchers and MNR employees are exempt from the calendar quarter requirement, but they must be tested annually. Transportation Supervisors unable to attend during their quarter must attend a Rules Class no later than the end of the calendar year in order to maintain their qualifications.

NOTE 2: Employees in the LETP are exempt from the calendar quarter up to 9 months of their training period. Afterwards, if they are out of their quarter, they must take a rules class to become current.

C-2. EXAMINATIONS – MEDICAL

Employees subject to NORAC Operating Rules are required to satisfactorily pass a regular periodical physical examination, or special periodical when required by their immediate supervisor. Employees are personally responsible for obtaining a "Request for Medical Services" form from their immediate supervisor and arranging for an examination by contacting a physician listed in Special Instruction R-1. They are also personally responsible for returning a copy of the completed "Request for Medical Services" form to their immediate supervisor. In addition, MoFw employees must forward a copy to the Rules Department by mail or FAX (201) 246-2829.

C-2. (cont.)

Physical examinations must be taken in the calendar quarter in which their date of birth occurs (see the table in Special Instruction C-1). The date of physical examination must be recorded by the employee on the "Employee Qualification - Medical" page of the Special Instructions. Operators must contact their immediate supervisor before arranging a date for a physical examination.

NOTE: MNR employees are exempt from the calendar quarter requirement, and an approved MNR medical form may be submitted instead of the NJ TRANSIT "Request for Medical Services" form. They may obtain physicals at MNR approved facilities. Medical forms must be faxed to the NJ TRANSIT Rules Department at 201- 246- 2829. All other requirements must be met.

Length of Qualification:

- **Locomotive Engineers must have a physical annually in the month of their birth.**
- **All other employees:**
 - Under 50 years of age - once every 3 years**
 - 50 years or older - once every 2 years**

C-3. **SICK LEAVE**

Employees off duty for more than 30 days account of sickness or injury, must pass a physical examination before resuming duty.

C-4. **PHYSICAL CHARACTERISTICS**

An **Engineer** who has not operated a train within a period of 12 months over a portion of the railroad, on which he is expected to operate within the State of New Jersey, must not be used on such portion of the railroad until he has been re-examined and qualified by the proper officer. An Engineer trainee must not operate an engine in the State of New Jersey unless he has qualified on the physical characteristics of the portion of the road to be used in the same manner as prescribed for an Engineer. (This paragraph will not apply to engine crews assigned to yard engines while working within confines of yards).

An **Engineer** who needs to operate over a portion of railroad in order to maintain his qualifications will arrange to make a qualifying trip. The crew caller and Road Foreman for that portion of railroad must be notified. A **TRO-Q** must be made out to show the qualifying trip in accordance with the Hours of Service Act.

A **Conductor** who has not made a trip in Conductor/ Assistant Conductor service, or a special trip in such manner to review the physical characteristics on any portion of the railroad within 12 months, must not be employed as a Conductor on such portion of the railroad until he has made one or more trips, and has been examined by the proper officer.

C-4. (cont.)

When making a special trip for the purpose of qualification, employees must report to the Line Superintendent or his designee, and state in writing, the territory reviewed, date, train or other method used and verification signature of Conductor or Engineer. The regular Conductor, Engineer or other designated employee must verify the portion of the railroad reviewed. An employee who has not performed service over any portion of the railroad within the one-year period must be re-examined by the proper officer. Employees ordered to perform service, as Conductor over any portion of the railroad for which they are not qualified must immediately inform the Dispatcher.

Engineering Department Employees must be qualified on the physical characteristics of any territory that requires them to be an employee in charge, to copy Form D line 2 and 3 authority for track car movements, to provide Roadway Worker Protection such as Individual Train Detection (ITD), removing a track from service, obstructing a track, or requesting Foul Time. Signal department personnel must be Physical Characteristic qualified for their assigned/bulletined territory. **Once qualified**, physical characteristics qualifications are valid for **2 years beginning on the date qualified through the end of the calendar quarter two years afterward**. Employees required to be qualified must ensure that they do not let their qualifications lapse. Current qualifications may be reviewed (discuss recent changes to the territory) with the Rules Department or Line Superintendent's Office for updating within the 2-year period.

If the physical characteristics expire, an appointment must be made with the Rules Department or Line Superintendent's Office (AC and MNR employees ONLY - see Notes) to be fully examined on the territory.

NOTES:

1. After contacting the Line Superintendent's Office, Engineering Department employees who work on the Atlantic City Line may take their initial qualification and re-qualification physical characteristics exam with Line Supervision when those supervisors are available.
2. MNR employees in addition to reporting to the NJ TRANSIT Line Superintendent or NJ TRANSIT Rules Department, for the purpose of 2-year reviews, they may report to MNR West of Hudson Line Supervision.

C-5. **RETURN TO DUTY**

If absent from all railroad duty for 30 days or more, T&E employees must notify the Manager Operating Rules or Rules Examiner of such absence. The Manager Operating Rules, Rules Examiner or Designated Line Supervisor will examine the employee to ascertain the employee's knowledge and understanding of any General Orders, Bulletin Orders, or changes in the Operating Rules, which may have been issued during the absence. The returning employee must have all required current publications and instructions for inspection. The result of this examination will be shown on Form TRO-11, which will also show the signature of both the employee and the examiner.



Chris Christie, Governor
Kim Guadagno, Lieutenant Governor
Richard T. Hammer, Commissioner
Steven H. Santoro, Executive Director

NJTRANSIT
180 Boyden Avenue
Maplewood, NJ 07040-2494
973-378-6300

December 5, 2016

Memorandum: Epworth Sleepiness Scale


Dear Dr. [REDACTED]:

The audit on the medical file for [REDACTED], which was performed by me, failed to locate an Epworth Sleepiness Scale for the July 7, 2016 physical exam performed at our Hoboken, NJ satellite facility.

Regards,

[REDACTED]

[REDACTED]
Director Medical Services
New Jersey Transit

Policy Number 3.34	Supersedes New	Effective Date 4/20/2017
Manual Human Resources	Source Human Resources	Key Subject Detection and Treatment of Obstructive Sleep Apnea
Title OBSTRUCTIVE SLEEP APNEA POLICY - RAIL OPERATIONS		
Applies to All NJ TRANSIT Rail Operations Federal Railroad Administration (FRA) Covered Employees and Federal Motor Carrier-Safety Administration (FMCSA) Safety Sensitive Employees and Contractors		

I. **PURPOSE:** To establish the responsibilities and requirements for detection and treatment for managing Obstructive Sleep Apnea (OSA).

II. **DEFINITIONS:**

Covered Employee - A person who has been assigned to perform service subject to the Hours of Service Act (45 U.S.C. 61-64b) during a duty tour, whether or not the person has performed or is currently performing such service, and any person who performs such service. For the purpose of pre-employment testing only, the term "covered employee" includes a person applying for a position in which he will perform covered service.

Safety Sensitive Employee - A person, applicant or transferee who is subject to the Commercial Driver's Licensing (CDL) requirements of the Commercial Motor Vehicle Safety Act of 1986, U.S.C. Chapter 313 and who performs safety-sensitive functions as defined by the FMCSA.

Obstructive Sleep Apnea (OSA) - "a respiratory disorder characterized by a reduction or cessation of breathing during sleep" as defined by the Federal Railroad Administration (FRA) in its proposed rulemaking and its safety Advisory 2016-03.

Contractor - A person or organization that provides a service for NJ TRANSIT Rail Operations consistent with a specific understanding or arrangement. The understanding can be a written contract or an informal arrangement that reflects an ongoing relationship between the parties.

III. **POLICY:**

NJ TRANSIT is committed to providing and maintaining a safe environment for all its employees, customers and the general public. As part of this mission, NJ TRANSIT requires screening for OSA in an effort to identify and diagnose this medical condition that may affect alertness or fatigue in covered and safety sensitive rail operations employees.

NJ TRANSIT requires all rail operations covered employees, and safety sensitive employees to be screened for OSA during their required Book of Rules, Commercial Drivers Physical Examination or Certification Physical Examinations.

NJ TRANSIT requires employees of contractors who are standing in the shoes of NJ TRANSIT Rail employees who perform covered hours of service or safety sensitive functions as described in Section II definitions to have a written OSA program and must certify compliance with NJ TRANSIT's policies, procedures, rules and/or regulations with NJ TRANSIT's Medical Services Department on an annual basis.

NJ TRANSIT will require all invitations for bids and requests for proposals involving the performance of Rail Operations safety-sensitive functions or hours of service functions to include a statement regarding the required compliance with NJ TRANSIT's OSA Program, procedures and reporting. NJ TRANSIT will inform contractors in writing of the requirements and of NJ TRANSIT's intent to monitor the contractor's compliance with them.

The determination of whether a covered employee or safety sensitive employee will be deemed Medically Not Approved (MNA) based on NJ TRANSIT's OSA screening criteria is made solely by the NJ TRANSIT Medical Department.

The determination to medically approve an employee as compliant with OSA treatment is made solely by the NJ TRANSIT Medical Department.

Covered employees and safety sensitive employees will be paid for any lost wages for time they would have been scheduled to work if they were taken out of service based on their on OSA screening criteria if the employee meets all of the following:

- o They were medically not approved based solely on OSA screening criteria;
- o They were not paid any wages or wage replacement for the time they were out-of-service;
- o After the completion of a clinical sleep study they were deemed to be negative for OSA by a pulmonologist AND by the NJ TRANSIT Medical Department.

If medical dispute arises NJ TRANSIT will use the recognized provisions of the relevant collective bargaining agreement for the procedures governing the resolution of medical disputes/Boards of Doctors.

IV. **RESPONSIBILITIES**

Managers and employees of NJ TRANSIT have a responsibility to ensure that OSA does not impact the safety, health and well-being of themselves, co-workers and the public.

Managers, Supervisors, Instructors and Rules Examiners are responsible for:

- o Immediately removing employees from service if their physical certification lapses.
- o Monitoring workloads, work patterns and crew assignments pursuant to 49 CFR Part 228 Hours of Service Railroad Employees.
- o Providing information, instruction and training about risks to health, safety or welfare of workers involved with shift work, extended hours and on-call arrangements.
- o Informing NJ TRANSIT's Medical Services Department of existing and new contractors performing hours of service or safety sensitive functions as described in Section II, Definitions.

Covered and Safety Sensitive Employees are responsible for:

- o Scheduling and participating in their required Book of Rules, Commercial Drivers Physical Examination or Certification Physical Examinations.
- o Participating in a clinic sleep study if identified during their physical examination as meeting potential obstructive sleep apnea criteria.
- o Notifying NJ TRANSIT's Medical Department of any condition not already on record with the railroad, which could impair their ability to perform their duties. This notification must be made immediately upon the employee receiving knowledge of the condition, and is not limited to those conditions discovered during required medical examinations.
- o Maintaining compliance with the use of their CPAP/APAP device and providing compliance data to Medical Services as required or requested.
- o Participating in required NJ TRANSIT's education, general training and recertification training to gain an understanding of OSA and fatigue.
- o Avoiding behaviors and practices that would prevent being adequately rested and fit for duty.

Employee Assistance Program (EAP) and Medical Services are responsible for:

- o In coordination with employees, scheduling of periodic physical examinations in a timely fashion.
- o Scheduling clinic sleep studies in an expeditious manner for employees who have met the OSA criteria.
- o Ensuring annual follow-up for OSA compliance is submitted by employees and reviewed by NJ TRANSIT's Physician.
- o Maintaining communication with Rail Operations related to the Medical Log, Requests for Medical Services form MD40 and a safety sensitive or covered employee's status regarding their medical ability to work.
- o As appropriate providing information, instruction and training about risks to health, safety or welfare of workers involved with shift work, extended hours and on-call arrangements.
- o On an annual basis, ensuring all contractors performing any hours of service functions or safety sensitive functions have a written OSA program and are compliant with NJ TRANSIT's OSA policies, procedures, rules and/or regulations.

Benefits Department is responsible for:

- o Assisting employees who encounter problems with the use of their health insurance coverage in scheduling, or payment for a sleep study, or acquisition of CPAP/APAP medical equipment.

V. **CROSS-REFERENCES** Rail Obstructive Sleep Apnea Procedures

Titles which fall under the Policy for Detection and Treatment of Obstructive Sleep Apnea