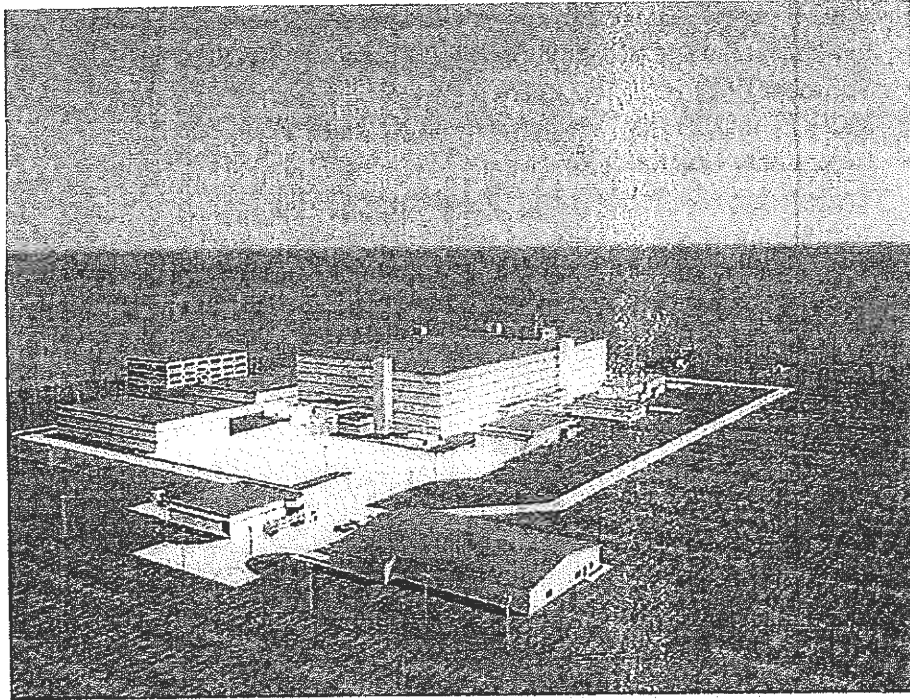


MOX Fuel Fabrication Facility

MOX Services FY12 Award Fee Evaluation



PREPARED: *Vickmary Negron-Figueroa*
Vickmary Negron-Figueroa, MOX Integrated Project Div.

RECOMMENDED: *Kevin Hall*
Kevin Hall, MOX Federal Project Dir.
Performance Evaluation Team Chair

APPROVED: *Pete Hanlon*
Pete Hanlon, ADA for Fissile Materials Disposition
Fee Determining Official

Background

NNSA has completed its evaluation of the MOX Services Award Fee for Fiscal Year (FY) 2012. Ten categories of performance are considered in the evaluation, with the following weightings:

- Effective Interactions and Timely Response to the NNSA, the NRC, other Regulators, and Lessons Learned with other DOE Contractors (10%)
- Effective Implementation of Project Management and Business Systems (20%)
- Worker Safety and Health, and Environmental Stewardship (20%)
- Implementation of a Robust Quality Assurance Culture (15%)
- Security (10%)
- MOX Fuel Codes and Methods Development (5%)
- Community Outreach (5%)
- Engineering and Construction Effectiveness (15%)

Each category is discussed in detail below. Additional information on the summary award fee rating, conversion, and methodology is provided at the end of the report.

1.3.1 Effective Interactions and Timely Responses to the NNSA, the NRC, other Regulators, and Lessons Learned with other DOE Contractors – (Weighting: 10%)

Lead – Sam Glenn

Justification for Evaluation Points Awarded:

Overall, for the fiscal year 2012 MOX Services performed **Good** in the performance area of Effective Interactions and Timely Responses to the NNSA, the NRC, other Regulators, and Lessons Learned with other DOE Contractors as detailed below.

MOX Services supported NNSA, NRC, and other Regulators in numerous instances like meetings with NRC project managers to discuss the Principal Structures Systems and Components schedules and Operational Readiness Review scope and schedule; NNSA Peer Review with timely information and candid discussions; by hosting several NRC inspections with positive results for the project; and continued to support NNSA in the transfer of programmatic risk items to the Plutonium Disposition Program (PDP). MOX Services responses to NNSA requests were of high quality this fiscal year and they continued to provide effective and timely response to requests from DOD-CAPE for EVMS data, FTEs by discipline, and commodities.

MOX Services continues to actively participate on DOE's Corporate Operating Experience Program's monthly conference calls and submitted three (3) lessons learned this fiscal year for a total of seventeen (17) submitted to date to the program. During this fiscal year, two outside reviews looked at the MOX Lessons Learned program. The first was conducted in June by DOE and the second one was completed in July by the NRC. Both reviews were pleased with the Lessons Learned Program resulting in no recommendations, issues or findings.

However, MOX Services' areas needing improvement are the responsiveness of the DOE Inspector General documentation requests, the promptly investigation and implementation of cost saving ideas submitted by employees, and the prompt responsiveness to NNSA recommendations for increasing productivity (i.e. pipe support tolerances, inspection times).

Subjective rating: Good

**1.3.2 Effective Implementation of Project Management and Business Systems –
(Weighting: 20%)**

Lead – Lawrence Tam

Justification for Evaluation Points Awarded:

Overall, MOX Services performed **Satisfactory** in the area of Effective Implementation of Project Management and Business Systems.

MOX Services met their commitment to complete and submit the complex and very extensive re-baseline BCP. As requested by the Deputy Federal Project Director, they also promptly submitted changes to the BCP for project review.

MOX Services proactively sought occasions to engage small businesses in an effort to enhance small business outreach and expand the pool of small business suppliers: MOX attended a number of conferences including the Prime Contractor Small Business Liaison Officer's meeting and training on October 5, 2011; the SRNS IT Small Business Outreach Event on October 12-13, 2011; the SBA's Procurement Opportunity Matchmaker – 2012 Salute to Small Business Conference in Columbia, SC on May 16, 2012; and the Carolinas Minority Supplier Development Council Business Opportunity Conference in Charleston, SC on July 30 – August 1, 2012. However, more effort is required to meet disabled veteran owned goals. MOX Services did not meet the Small Disadvantaged Veteran-Owned Small Business, Veteran-Owned Small Business and HUBZone Small Business goals this fiscal year.

MOX Services coordination of work has been less than optimal. Penetration seals are holding up the installation of fire dampers and work planning has not been adequate for the installation of the PSI glove box. Work coordination and planning is being performed in some cases by the craft on a day-by-day basis. Also, the PERCS employee cost savings program continues to be poorly utilized. A substantial percentage of the suggestions are being generated by NNSA.

Spending was not properly managed leading to a ramp up and ramp down of craft. This is indicative of ineffective management.

The construction progress of the BTS was not accurately reflected in the Monthly Variance Report causing the EVMS data to be incorrect. Cost Accounting Managers did a poor job of tracking and monitoring spending against the overall yearly plan. Trend program was found to be inadequate to track closed out control accounts. Many of the control accounts were closed out and required post close-out adjustments to the EAC.

MOX Services was extremely responsive to various requests from the CO and Albuquerque Pricing Office in support of price analysis, to include providing actual vendor support costs prior to negotiations; very flexible in providing requested proposal

formats for the re-baseline/DMO proposal; and proactively working through ProPricer software challenges to ensure NNSA obtains sufficient pricing data.

MOX Services continue to proactively support the MFFF Protective Force Security Services Team in the development of the requirements to incorporate security services for the MFFF into the current security services contract with Wackenhut Security Incorporated (WSI).

An assessment of MOX Services Procurement System on April 18-19, 2012, confirmed that they are performing exceedingly well in the procurement activities arena, and as a result, their procurement system remains approved.

MOX was very responsive to numerous NNSA and DCAA requests for contract administration documentation and audit information and willingly provided the necessary resources to support the requests and/or resolve the issue(s) in a timely fashion.

MOX continues to very efficiently and effectively review teaming partner invoices for unallowable costs in compliance with cost principles and contract requirements which ensures vendor invoices are billable and promptly paid while maintaining proper controls.

MOX Services continues to exceed standards in managing over \$98M in Government Property, generated an income of \$566,364 and achieved a cost avoidance of \$1.8M through recycling of scrap metal and other property sales.

Subjective rating: Satisfactory

1.3.3 Worker Safety and Health and Environmental Stewardship – (Weighting: 20%)

Lead – Kevin Buchanan

Justification for Evaluation Points Awarded:

MOX Services continued to **exceed nearly all expectations, an Excellent rating**, in environmental, safety and health performance as evidenced by their incident rates, achievement of 11 million safe man-hours without a lost workday incident, and attainment of six consecutive years without an environmental or waste management notice of violation or permit non-compliance.

These achievements were a result of both a comprehensive safety management system and a mature environmental management system, which were based on continual improvement. Effective field oversight and mentoring were critical to the success of the continual improvement process. Significant improvements were made in FY2012 in each of the key elements of the system - management leadership, employee involvement, worksite analysis, hazard prevention and control, and safety and health training. These improvements included implementation and evaluation of a people-based observation process, revision of the Health and Safety Manual and its associated Safety Handbook, a quantifiable management field safety assessment process, institution of focused safety assessments, enhancements to the training portfolio and others. Reflective of the positive safety and health achievements at MOX, OSHA accepted MOX Service's application for Voluntary Protection Program (VPP) Star status and was expected to plan a program evaluation early in FY13. Likewise, the MOX Services maintained membership in the South Carolina Environmental Excellence Program (SCEEP), realized significant reduction in both waste volumes and costs due to effective waste segregation programs, and submitted an application for Gold Status within Leadership in Energy and Environmental Design (LEED) for the Technical Support Building.

At the end of FY12, MOX Services had worked 11,916,056 safe-hours without sustaining a lost time incident. This is significant as the project has logged approximately 21,086,057 hours since it began. MOX Services experienced twenty-four (24) OSHA recordable incidents in FY2012. MOX Services substantially exceeded the performance goal by achieving a Total Recordable Cases (TRC) Rate of 0.73 per 200,000 hours of exposure compared to the DOE construction contractors' rate of 1.3 for CY 2010. MOX averaged a Days away/Restricted (DART) rate of 0.34 compared to CY 2010 DOE construction contractors' rate of 0.6.

MOX Services hired an Industrial Hygienist (IH) to perform workplace monitoring for hazardous gases, chemicals, and other elements that could lead to illnesses and injuries. IH monitoring activities included mold, mildew, hexavalent chromium, paint fumes, noise levels, and a host of other items. The presence of the IH staff resulted in a significantly safer construction site as well as a more informed work force. MOX Services established a Behavioral Based Safety program. All craft have completed or have been scheduled to go through a one hour training course. Meetings have been

conducted to get all supervisors and foreman more active in supporting the process. Environmental Safety and Health (ES&H) established a weekly metric system for all Superintendents to determine the progress of getting craft personnel active in conducting behavioral safety observations. There has been an increase in participation since the onset of this initiative. Results are posted every Tuesday in the Plan of the Day (POD) meeting. ES&H has been working closely with supervisors and observers to improve the number of observations and quality of those observations.

MOX Services completed full implementation of the Safety BUX program. Safety BUX are awarded for participation in safety activities such as committees, assessments, wellness programs, and safety suggestions. This program was well-received among the workforce and provided an opportunity for all personnel assigned to the MOX project to be rewarded for working safely.

MOX Services ES&H has been working diligently to ensure all ES&H procedures are reviewed at least every two years. These procedures have been updated as needed to more clearly specify regulatory needs, improve processes, or reflect actual site work practices. However throughout the fiscal year, MOX Services struggled to ensure work zone barricades remained compliant with procedural requirements. A new barricade procedure and associated computer-based training (CBT) was developed to help employees understand the type of barricades used at the facility and what they mean. This new barricade procedure enhanced the use of barricades, and particularly improved the communication of hazards using the barricade tag.

Subjective rating: Excellent

1.3.4 Implementation of a Robust Quality Assurance Culture – (Weighting: 15%)

Lead – Mosi Dayani

Justification for Evaluation Points Awarded:

Overall, for the fiscal year 2012 MOX Services performed **Good** in the performance area of Implementation of a Robust Quality Assurance Culture as detailed below.

NNSA audit team did not identify any deficiencies in the Quality Assurance Program and the management controls were implemented effectively. The MOX Services Management Review Committee (MRC) initiated a requirement for selected Condition Reports (CR) to be presented to the MRC when the corrective actions have been identified. MOX Services also developed a process to identify low risk items relied on for safety which would be suitable for application of graded quality assurance requirements.

In FY 12, no Level IV Violations were found by NRC which demonstrates continuing compliance of the program with NRC quality assurance requirements.

However, NNSA and NRC are concerned that work packages are not being closed-out and MOX Services has not responded timely to these concerns. Lessons learned from work packages improvements made during civil/structural work are not incorporated into the work packages for mechanical and electrical work. MOX Services continues to rely heavily on field engineers to perform interim inspections of field installations in a manner that duplicates QC and affects craft productivity with significant waiting times for inspection.

Subjective rating: Good

1.3.5 Security – (Weighting: 10%)

Lead – Bryan Drouin

Justification for Evaluation Points Awarded:

Overall, for the fiscal year 2012 MOX Services performed **Good** in the performance area of Security as detailed below.

Over the 12 month period MOX Services demonstrated effective and generally pro-active programs in the following areas- MC&A, Cyber Security, OPSEC and the development of the draft MFFF Classification Guide. The other program areas would be characterized as satisfactory and achieving minimum program requirements. There also needs to be better communication and coordination between the MOX Services security sections to ensure that all security issues are resolved in a cost effective and comprehensive manner such as MFFF access controls for IT equipment processing classified information, MFFF rooms displaying classified MC&A information, effective Two-person rule enforcement.

Physical Security completed the SIMAJIN model of the MFFF Physical Security System and conducted diagnostic simulation runs. However, the entire Vulnerability Assessment process needs to be integrated into a Physical Security Program implementation schedule and scoping document.

MC&A is making significant progress after hiring additional MC&A subject matter experts. Some of the MC&A Program progress has been slowed by the on-going ASLB hearing process.

Information Security (Classification/OPSEC/CMPC/UCI) maintains compliant DOE/NNSA programs. Cyber Security is very proactive, participates in local and complex-wide Cyber Security forums and lessons learned activities, and has an aggressive IT system monitoring and intrusion detection system. Cyber Security did very well during the annual NNSA Cyber Security Survey in August, however, periodic Spear Phishing exercises are required more frequently to maintain an appropriate level of employee awareness.

Personnel Security continues to process MOX Services employees for clearances at rate that will support the new proposed MFFF Startup date. MOX Services is also working with SRSO and SR to develop new site badges (non-HSPD-12) for personnel who do require access to Restricted Data. A MFFF Red/Black cable separation technical solution was proposed by MOX Services in meetings with NNSA technical security, Cyber Security and MC&A SMEs in September 2011 in Washington, DC and at SRS, and then in a November 2011 meeting with Classification, Information Security and MC&A SMEs in Washington, DC. The technical approach path forward was approved by NNSA in February 2012. Since that time Cyber Security, MC&A, IT, and SDG have been completing the "controlled interface" design. Currently the specifications have been written for the Firewall and Cloud Shield devices and procurements are in route for

approval. MOX Services property protection activities require further review after a rash of thefts began in August 2012

The MOX Services efforts to establish a S&S Self-Assessment Program experienced some startup problems involving insufficient coordination with NNSA on the Self-Assessment plans and the actual conduct of the Self-Assessments. Initially the final Self-Assessment Reports were not provided to NNSA. The 2012 NNSA S&S Survey noted that key parts of the MOX Services S&S Self-Assessment Program lacked definition and some Program requirements were not being satisfied. Improvement in the MOX Services S&S Self-Assessment Program is anticipated in 2013.

Subjective rating: Good

1.3.6 MOX Fuel Codes and Methods Development - (Weighting: 5%)

Lead – Sam Glenn

Justification for Evaluation Points Awarded:

Overall, for the fiscal year 2012 MOX Services performed **Very Good** in the performance area of MOX Fuel Codes and Methods Development as detailed below.

In FY12, MOX Services began the task of completing a comprehensive matrix of all the product and process differences between the reference plant MELOX and the US designs. They continued to stay engaged with Westinghouse as a potential MOX fuel design supplier and promoted MOX Fuel and potential fuel purchases with Bellafonte TVA representatives.

MOX Services executed the contract with AREVA NP for PWR Codes and Methods work while creating a work plan to develop the case for the NRC that the existing databases support batch implementation of PWR and BWR MOX fuel without any further test programs.

MOX Services is currently working with the data received from Duke on the Catawba LTA cycles which will allow AREVA to model the LTA cycles that will demonstrate to NRC the ability of the AREVA NP codes to accurately model WG MOX fuel. Many EVM milestones were completed on the contract with AREVA NP for PWR Codes and Methods work. MOX Services changed the method for tracking the financial controls to a weighted milestones plus percent complete method to improve the EVMS methodology for the BWR and PWR codes and methods

Subjective rating: Very Good

1.3.7 Community Outreach - (Weighting: 5%)

Lead – Amy Poston

Justification for Evaluation Points Awarded:

MOX Services, in the area of Community Outreach, performed **Very Good** as detailed below.

The Project continued its tradition of giving back to the community by participating in and contributing to a variety of charitable events during the year including the MOX food drive which was very successful by donating 14,625 pounds of food and \$7,500 to the Golden Harvest Food Bank to help those in need in the CSRA.

MOX Services team members devoted thousands of hours of their personal time as volunteers and leaders in community organizations and led all contractors at SRS in community blood donations.

Project leaders made a variety of presentations about MOX to public groups during the year including career fairs at area schools and universities, reaching thousands of students who are the potential future workforce for the Project.

In FY12, MOX Services issued news releases and media statements were developed as needed for media inquiries. MOX Services team members News release was issued on the NRC's positive second quarter report with no violations, which appeared on the news media, InSite, and the Aiken Leader to inform the community of NRC inspections' outcome. MOX Services Communications organized the ribbon cutting ceremony for the Technical Support Building (BTS), hosted a very successful 10 million hour safety celebration that was also attended by a number of Congressional staff and local dignitaries, provided excellent assistance in the promotion of the MOX Conservation Garden resulting in a successful Earth Day celebration and good coverage in newspapers, actively participated in the South Carolina State Summer Nuclear Science Institute initiative, and supported tour for the Undersecretary for Nuclear Security and NNSA Administrator Thomas D'Agostino and other visitors.

Subjective rating: Very Good

1.3.8 Engineering and Construction Effectiveness - (Weighting: 15%)

Lead – Kim Sidey

Justification for Evaluation Points Awarded:

Overall, MOX Services performed **Unsatisfactory** in the area of Engineering and Construction Effectiveness as detailed below.

MOX Services continues making good progress on programming of Normal Programmable Logic Controller (NPLC), process personal computer (PPC), and Manufacturing Management Information System (MMIS). After several schedule delays from the Safety Programmable Logic Controller (SPLC) vendor, MOX Services received the first SPLC of seven and begun planning for integration testing of SPLC and NPLC. To avoid further schedule delays, MOX Services de-scoped some of the work in the SPLC subcontract and awarded to another vendor.

However, in the construction area MOX Services needs improvement with poor construction planning and work package coordination which resulted in too many commodities being installed on temporary hangers and/or needless re-mobilizations of craft.

Installation specifications for the installation of Fire Doors was overly-conservative and did not reflect a through constructability review. This resulted in substantial installation delays and unnecessary costs.

Substantial quantities of fabricated piping are being affected by late design changes without apparent effort to minimize loss or reuse.

Although work processes have matured and improved over the past two years HVAC installation performance is not meeting expectations. MOX Services delayed making a decision regarding the mechanical connection options for the HVAC duct systems which contributed to continued inefficiency and likely consumed some float. MOX Services Procurements are being monitored and tracked to ensure timely delivery of commodities however in some cases procurement is not meeting delivery expectations.

Subjective rating: Unsatisfactory

Award Fee Rating

| AWARD FEE RATING TABLE | | |
|-----------------------------------|--|---------------------------|
| Subjective Rating Criteria | Subjective Rating Evaluation Criteria Description | At Risk Fee Earned |
| Excellent | Contractor has <u>exceeded almost all</u> of the significant award fee criteria and has met overall technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period. | 91 – 100% |
| Very Good | Contractor has <u>exceeded many</u> of the significant award fee criteria and has met overall technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period. | 76 – 90% |
| Good | Contractor has <u>exceeded some of</u> the significant award fee criteria and has met overall technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period. | 51 – 75% |
| Satisfactory | Contractor has met overall technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period. | 1 – 50% |
| Unsatisfactory | Contractor has failed to meet overall technical performance requirements of the contract as defined and measured against the criteria in the award fee plan for the award fee evaluation period. | 0% |

| FY2012 Non-Milestone Award Fee Criteria | % |
|--|----------|
| 1. Effective Interactions and Timely Response to the NNSA, the NRC, other Regulators, and Lessons Learned with other DOE Contractors | 10% |
| 2. Effective Implementation of Project Management and Business Systems | 20% |
| 3. Worker Safety and Health, and Environmental Stewardship | 20% |
| 4. Implementation of a Robust Quality Assurance Culture | 15% |
| 5. Security | 10% |
| 6. MOX Fuel Codes and Methods Development | 5% |
| 7. Community Outreach | 5% |
| 8. Engineering and Construction Effectiveness | 15% |

Final Performance Evaluation Subjective Rating:

| | | |
|-------|---|-----------------------|
| 1.3.1 | Effective Interactions and Timely Response | Good |
| 1.3.2 | Effective of Project Management and Business Systems | Satisfactory |
| 1.3.3 | Worker Safety and Health, and Environmental Stewardship | Excellent |
| 1.3.4 | Implementation of a Robust Quality Assurance Culture | Good |
| 1.3.5 | Security | Good |
| 1.3.6 | MOX Fuel Codes and Methods Development | Very Good |
| 1.3.7 | Community Outreach | Very Good |
| 1.3.8 | Engineering and Construction Effectiveness | <u>Unsatisfactory</u> |

Overall Adjective rating: Satisfactory

Total available award fee to earn was \$ 8,715,465. A weighted score of 50% out of a possible 100% results in an overall rating of Satisfactory and an award fee earned of \$4,379,521.



Department of Energy
National Nuclear Security Administration
Savannah River Field Office
P.O. Box A
Aiken, South Carolina 29802



January 28, 2013

Paul J. Whittingham
Contracts Manager
Shaw AREVA MOX Services, LLC
Savannah River Site
P.O. Box 7097
Aiken, SC 29804-7097

Dear Mr. Whittingham:

SUBJECT: Contract DE-AC02-99CH10888, Fiscal Year (FY) 2012 Award Fee Re-Evaluation (Letter, Trice/Hanlon, Award Fee Determination, MOX Services Additional Information, dated 12/21/12)

In response to MOX Services request in the referenced letter, the Government has completed its re-evaluation of performance category 1.3.8, Engineering and Construction Effectiveness, of the FY 2012 Award Fee Determination. As a result, the Fee Determination Official has changed the rating in this area from 'Unsatisfactory' to 'Satisfactory' with a revised score of 1% which equates to an increase in the award fee amount of \$13,073. Based on the re-evaluation, MOX Services has earned an overall amount of \$4,392,594 (50.4%) for the FY12 Award Fee period.

If you have any questions or comments, please contact me or Rita Pernell at 803-208-1772 or 803-208-8084, respectively.

Sincerely,

Robert Swett
Contracting Officer

SV:RJP:cle

COR-SRFOCAM-1.28.2013-491628

cc:

K. Hall, NA-265

P. Hanlon, HQ-NA-26

Award Fee Available(\$M) =

8.715465

8715465

| Category | Subjective Score | Weight Factor (%) | Sub x Weight | |
|---|------------------|-------------------|--------------|-----------------------|
| Timely Response, Lessons Learned | 51% | 10 | 5.1% | \$444,488.72 |
| Project Management and Business Systems | 10% | 20 | 2.0% | \$174,309.30 |
| Health and Safety, Environmental | 100% | 20 | 20.0% | \$1,743,093.00 |
| Quality Assurance | 51% | 15 | 7.7% | \$666,733.07 |
| Security | 75% | 10 | 7.5% | \$653,659.88 |
| MOX Fuel Codes | 80% | 5 | 4.0% | \$348,618.60 |
| Community Outreach | 80% | 5 | 4.0% | \$348,618.60 |
| Engineering and Construction | 1% | 15 | 0.2% | \$13,073.20 |
| Totals | | 100 | 50.4% | \$4,392,594.36 |

Rounded Overall Rating =

50%

2012 Award Fee Earned =

\$ 4.392594