# Question 3:Across the United States, how have emissions from coal combustion-related

#sources changed from 1999–2008?

#Get the data

NEI <- readRDS("summarySCC\_PM25.rds")

SCC <- readRDS("Source\_Classification\_Code.rds")

# Find the records that include coal and combustion

combustion<-which(grepl("Comb", SCC$Short.Name))

coal <-which(grepl("coal", SCC$Short.Name))

Coal<-which(grepl("Coal", SCC$Short.Name))

coal<-union(coal, Coal)

coalComb<-intersect(coal, combustion)

sccKey<-SCC[coalComb,1]

sccKey<-SCC$SCC[coalComb]

#Subset NEI dataframe by ccKey

ccYearly<-subset(NEI, NEI$SCC %in% sccKey)

# Aggregate emissions by year

coalByYear<-aggregate(Emissions ~ year, data=ccYearly, sum)

# Plot the data

plot(coalByYear, type = "o", col="red", axes = FALSE, xlab="Year", ylab="Total Emissions",

main="Total Emissions due to Coal Combustion \n (1999 to 2008, United States)")

ticks<-seq(1999,2008, 3)

axis(1, at=ticks, labels=ticks)

axis(2)

box()

# Save the plot

dev.copy(png,'plot4.png')

dev.off()